UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2021

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from _____ to _____
Commission File Number: 001-40672

RANI THERAPEUTICS HOLDINGS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**86-3114789**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
2051 Ringwood Avenue **San Jose, California**	**95131**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (408) 457-3700

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value $0.0001 per share	RANI	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The registrant was not a public company as of June 30, 2021, the last business day of its most recently completed second fiscal quarter and therefore cannot calculate the aggregate market value of its voting and non-voting common equity held by non-affiliates as of such date. The registrant's Class A common stock began trading on The Nasdaq Stock Market LLC on July 30, 2021.

As of March 28, 2022, the registrant had 24,387,030 shares of Class A common stock, $0.0001 par value per share, outstanding, 24,773,286 shares of Class B common stock, $0.0001 par value per share, outstanding and no shares of Class C common stock, $0.0001 par value per share, outstanding. Certain holders of units of the registrant's consolidated subsidiary, Rani Therapeutics, LLC, who do not hold shares of the registrant's Class B common stock can exchange their units of Rani Therapeutics, LLC for 1,387,471 shares of the registrant's Class A common stock.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this Annual Report on Form 10-K, to the extent not set forth herein, is incorporated herein by reference from the registrant's definitive proxy statement relating to the Annual Meeting of Stockholders to be held in 2022, which definitive proxy statement shall be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended December 31, 2021.

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Unless otherwise stated or the context otherwise requires, throughout this Annual Report on Form 10-K, the terms "we," "us," and "our," and similar references refer to Rani Therapeutics Holdings, Inc. ("Rani Holdings") and its consolidated subsidiaries, Rani Therapeutics, LLC ("Rani LLC") and Rani Management Systems, Inc. ("RMS").

We use Rani, Rani Therapeutics, RaniPill, the Rani Therapeutics logo, the R logo and other marks as trademarks in the United States and other countries. This Annual Report on Form 10-K contains references to our trademarks and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this Annual Report on Form 10-K, including logos, artwork, and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights, or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities' trade names, trademarks, or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the section titled "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," contains forward-looking statements. All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our future results of operations and consolidated financial position, business strategy, product candidates, planned preclinical studies and clinical trials, results of clinical trials, research and development costs, manufacturing costs, regulatory approvals, development and advancement of our oral delivery technology, timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that are in some cases beyond our control and may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "would," "expect," "plan," "anticipate," "could," "intend," "target," "project," "believe," "estimate," "predict," "potential," "seek," "aim," or "continue" or the negative of these terms or other similar expressions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- the progress and focus of our current and future clinical trials in the United States and abroad, and the reporting of data from those trials;
- our ability to advance product candidates into and successfully complete clinical trials;
- the beneficial characteristics, safety, efficacy, and therapeutic effects of our product candidates;
- our potential and ability to successfully manufacture and supply our product candidates for clinical trials and for commercial use, if approved;
- our ability to develop RaniPill HC or any redesign and conduct additional preclinical and clinical studies of any future design of the RaniPill capsule to accommodate target payloads that are larger than the payload capacity of the RaniPill capsule currently used for our product candidates;
- our ability to further develop and expand our platform technology;
- our ability to utilize our technology platform to generate and advance additional product candidates;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements, and needs for additional financing;
- our financial performance;
- our plans relating to commercializing our product candidates, if approved;
- our ability to selectively enter into strategic partnership and the expected potential benefits thereof;
- the implementation of our strategic plans for our business and product candidates;
- our ability to continue to scale and optimize our manufacturing processes by expanding our use of automation;

- our estimates of the number of patients in the United States who suffer from the indications we target and the number of patients that will enroll in our clinical trials;
- the size of the market opportunity for our product candidates in each of the indications we target;
- our ability to continue to innovate and expand our intellectual property by developing novel formulations and new applications of the RaniPill capsule;
- our plans and ability to obtain or protect intellectual property rights, including extensions of existing patent terms where available;
- the scope of protection we are able to establish and maintain for intellectual property rights, including our technology platform and product candidates;
- the sufficiency of our existing cash and cash equivalents to fund our future operating expenses and capital expenditure requirements;
- our expectations regarding the impact of the COVID-19 pandemic and the conflict between Ukraine and Russia on our business;
- developments relating to our competitors and our industry, including competing product candidates and therapies; and
- our expectations regarding the period during which we will qualify as an emerging growth company under the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act").

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions described in the section titled *"Risk Factors"* and elsewhere in this Annual Report on Form 10-K. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, or otherwise.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

Summary of Risk Factors

Below is a summary of the principal factors that make an investment in our common stock speculative or risky. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below under the heading "Risk Factors" and should be carefully considered, together with other information in this Annual Report on Form 10-K and our other filings with the Securities and Exchange Commission ("SEC"), before making investment decisions regarding our Class A common stock. See "Special Note Regarding Forward-Looking Statements."

- We have a very limited operating history, have incurred operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any revenue from commercial products or become profitable or, if we achieve profitability, we may not be able to sustain it.
- We are an early clinical stage biopharmaceutical company with no approved products and no historical commercial product revenue, which makes it difficult to assess our future prospects and financial results.
- If we are unable to raise additional capital when needed on acceptable terms, we may be forced to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations.

- We are early in our development efforts and have only two product candidates in early clinical development. All of our other product candidates are still in preclinical development. If we are unable to advance our product candidates through clinical development, obtain regulatory approval and ultimately commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.

- Clinical development is a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. Clinical failure can occur at any stage of clinical development.

- As an organization, we have completed only one phase 1 clinical trial, have not submitted an investigational new drug application, ("IND"), to the Food and Drug Administration ("FDA"), and we have never conducted later-stage clinical trials or submitted a Biologics License Application ("BLA"), and may be unable to do so for any of our product candidates.

- Because we have multiple product candidates in our clinical pipeline and are considering a variety of target indications, we may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

- Product candidates comprising a biologic within the RaniPill capsule employ novel technologies that have not yet been approved by the FDA or comparable foreign regulatory authorities, and we anticipate that our applications will have to be submitted as original, standalone BLAs. These regulatory authorities have limited experience in evaluating our technologies and product candidates. Our novel technologies also make it difficult to predict the time and cost of product candidate development.

- We have limited clinical data on our product candidates to indicate whether they are safe or effective for long-term use in humans.

- We depend on third-party suppliers for key materials used in our manufacturing processes as well as for the manufacturing of active pharmaceutical ingredients ("APIs") and drug substances. We do not have long-term supply arrangements in place for APIs and drug substances. The loss of third-party suppliers or their inability to supply us with adequate materials and APIs or drug substances could prevent or delay the conduct of our clinical trials and the commercialization of our products, if approved, and could harm our business.

- Our new high-capacity oral delivery device, RaniPill HC, is in early stages of development, and it is subject to the inherent risks and uncertainties of developing a novel, innovative technology. Our efforts to develop RaniPill HC may not be successful.

- We have conducted and may in the future conduct clinical trials for current or future product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

- The COVID-19 pandemic could adversely impact our business including our ongoing and planned preclinical studies and clinical trials.

- We face significant competition from other biotherapeutics and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

- Our future success depends on our ability to retain our executive officers and to attract, retain and motivate highly qualified personnel. If we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

- Failure or perceived failure to comply with existing or future laws, regulations, contracts, self-regulatory schemes, standards, and other obligations related to data privacy and security (including security incidents) could harm our business. Compliance or the actual or perceived failure to comply with such obligations could affect our ability to develop and commercialize RaniPill capsule, and otherwise negatively affect our operating results and business.

- Our commercial success may depend in part on our ability to build and maintain our intellectual property portfolio.

- We are a holding company and our principal asset is our interest in Rani LLC. Accordingly, we will depend on distributions from Rani LLC to pay our taxes, expenses (including payments under the Tax Receivable Agreement) and dividends. Rani LLC's ability to make such distributions may be subject to various limitations and restrictions.

- Rani LLC may make distributions of cash to us substantially in excess of the amounts we use to make distributions to our stockholders and pay our expenses (including our taxes and payments under the Tax Receivable Agreement). To the extent we do not distribute such excess cash as dividends on our Class A common stock, the holders of units of Rani LLC would benefit from any value attributable to such cash as a result of their ownership of Class A common stock upon an exchange or redemption of their units of Rani LLC.

- The multi-class structure of our common stock has the effect of concentrating voting control, which will limit your ability to influence the outcome of important transactions, including a change in control.

- Our principal stockholders and management own a significant percentage of our stock and are able to exert significant control over matters subject to stockholder approval and may prevent other stockholders from influencing significant corporate decisions.

PART I

Item 1. Business

Overview

We are a clinical stage biotherapeutics company focusing on advancing technologies to enable the administration of biologics orally, to provide patients, physicians, and healthcare systems with a convenient alternative to painful injections. We are advancing a portfolio of oral biologic therapeutics using our proprietary delivery technology.

We have developed and clinically tested a drug-agnostic oral delivery platform, the RaniPill capsule, which can deliver any drug, including large molecules such as peptides, proteins, and antibodies. The current RaniPill capsule can deliver up to a 3 mg dose of drug with high bioavailability. We are also developing a high-capacity version known as the RaniPill HC, which is in preclinical stage and which is intended to enable delivery of drug payloads up to 20 mg with high bioavailability. Our current RaniPill capsule is optimized to orally deliver a variety of biologic therapeutics, and we are advancing development of the RaniPill HC to address biologics with higher dosing requirements. Together, we believe that the current RaniPill capsule and RaniPill HC could enable us to deliver most biologics currently on the market via a convenient, oral daily dose.

We believe that our drug-agnostic and high bioavailability oral delivery technology positions us to be the leader in oral biologics.

In March 2022, we initiated a phase 1 clinical trial with RT-102, a RaniPill capsule containing our proprietary formulation of parathyroid hormone ("PTH"), in Australia. The study will compare pharmacokinetics of PTH administered via RaniPill capsule to PTH administered via subcutaneous injection. We previously completed a phase 1 clinical study with RT-101, a RaniPill capsule containing our proprietary formulation of octreotide, in Australia. The phase 1 study successfully achieved both its primary and secondary endpoints, demonstrating the safety and tolerability of RT-101 and achieving oral bioavailability of octreotide greater than 70%. No serious adverse events were reported.

Market segment and technology

More than half of the adult population of the U.S. has one or more chronic diseases. The affected population is expected to continue to grow as the population ages. Chronic conditions, including cancers, cardiovascular diseases, autoimmune diseases, and metabolic disorders, are increasingly being treated with biologics. In 2021, six of the ten highest revenue-producing drugs in the world were biologics. Current treatments using biologics are primarily via injection.

Biologics, the fastest growing segment of the drug industry, refers to a broad class of drugs that are derived from living sources. Biologics are distinguished from small molecules, like aspirin, which derive from chemistry. Biologics include, for example, recombinant therapeutic proteins, peptides, and monoclonal antibodies, as well as cell and gene therapies. In 2019, worldwide sales of biologics were estimated to have reached approximately $269.0 billion and are projected to reach $465.0 billion by 2023.

Biologics must generally be administered through intravenous, intramuscular, or subcutaneous injection. Patient aversion to injections has promoted a significant interest in the development of solutions to enable the oral delivery of biologics. However, a significant hurdle is the ability to achieve sufficient bioavailability with oral biologics to produce an intended therapeutic effect. Bioavailability refers to the proportion of a delivered dose that reaches the bloodstream in active form. Attempts at oral delivery of biotherapeutics have remained largely unsuccessful due to the rapid degradation and digestion of biologics in the gastrointestinal ("GI") environment before they can be absorbed into the bloodstream.

Our solution is our novel, proprietary and patented platform technology referred to as the RaniPill capsule, an orally ingestible pill designed to automatically deploy in the small intestine to administer a precise therapeutic dose of a biologic into the intestinal wall. Our several preclinical studies and clinical trials have demonstrated bioavailability of dosing via the RaniPill capsule that is generally comparable to dosing subcutaneously, with high dosing accuracy: this level of bioavailability is significantly higher than any that has been demonstrated with respect to others' attempts at oral delivery of biologics.

We are pursuing a number of clinical and preclinical pipeline programs utilizing our current RaniPill capsule. In addition, our newly designed high-capacity oral biologic delivery device, the RaniPill HC, has the potential to deliver 500%-plus higher payloads than our current RaniPill capsule. We believe this is a significant breakthrough in drug delivery with the potential to provide expansive opportunities for the company, such that we could potentially pursue a daily dosing option for over 50 additional biologics, for internal development or through partnership, including such biologics as pembrolizumab, etanercept, trastuzumab and

secukinumab. We believe that oral biologics utilizing our RaniPill technology have the potential to disrupt the large and growing biologics market.

Organizational Transactions

Rani Holdings was formed as a Delaware corporation in April 2021 for the purpose of facilitating an initial public offering ("IPO") of its Class A common stock, to facilitate certain organizational transactions, and to operate the business of Rani LLC and its consolidated subsidiary RMS. In connection with the IPO, we established a holding company structure with Rani Holdings as a holding company and its principal asset is the Class A common units ("Class A Units") of Rani LLC that it owns. As the sole managing member of Rani LLC, Rani Holdings operates and controls all of Rani LLC's operations, and through Rani LLC and its subsidiary, conducts all of Rani LLC's business.

In connection with the IPO, we were party to the following organizational transactions (the "Organizational Transactions"):

- Amended and restated Rani LLC's operating agreement (the "Rani LLC Agreement") to appoint Rani Holdings as the sole managing member of Rani LLC and effectuated an exchange of all outstanding interests in Rani LLC into Class A Units and an equal number of voting noneconomic Class B units.

- Amended and restated our certificate of incorporation to provide for the issuance of (i) Class A common stock, each share of which entitles its holders to one vote per share, (ii) Class B common stock, each share of which entitles its holders to 10 votes per share on all matters presented to the Company's stockholders, (iii) Class C common stock, which has no voting rights, except as otherwise required by law and (iv) preferred stock.

- Certain holders of Class A Units tendered their Class A Units for shares of our Class A common stock. Certain holders of Class A Units continued to hold such Class A Units ("Continuing LLC Owners") and received shares of our Class B common stock.

- Continuing LLC Owners are entitled to exchange, subject to the terms of the Rani LLC Agreement, the Class A Units they hold in Rani LLC, together with the shares they hold of our Class B common stock (together referred to as a "Paired Interest"), in return for shares of the Company's Class A common stock on a one-for-one basis provided that, at our election, we may effect a direct exchange of such Class A common stock or make a cash payment equal to a volume weighted average market price of one share of Class A common stock for each Paired Interest redeemed. Any shares of Class B common stock will be cancelled on a one-for-one basis if we, at the election of the Continuing LLC Owners, redeem or exchange such Paired Interest pursuant to the terms of the Rani LLC Agreement.

- Entered into a registration rights agreement and tax receivable agreement ("Tax Receivable Agreement" or "TRA") with certain of the Continuing LLC Owners.

Our Strategy

Our strategic vision is to disrupt and expand the approximately $269.0 billion market currently served by injectable only therapeutic biologics. We plan to do this by developing and advancing oral biologics therapies. We are committed to delivering oral biologic solutions for patients living with burdensome chronic diseases. We believe that the RaniPill capsule will improve the lives of millions of patients with chronic diseases who currently depend on biologics available only as injections.

Our strategy includes the following aspects.

- **Pursue validated and commercially established market opportunities**. We intend to pursue high-value markets with biologics that are already approved where we can develop our own differentiated products. We believe that these products will take market share from available therapies, while also expanding existing markets by reaching new patient populations that otherwise are not being treated by injectable biologics.

- **Establish the RaniPill capsule as a platform technology with regulatory authorities**. We plan to demonstrate the safety and tolerability of the RaniPill capsule through clinical trials independent of any biologic. Data from these studies will be used to support subsequent regulatory applications for our product candidates.

- **Expand in-house manufacturing of the RaniPill capsule**. We have vertically integrated our manufacturing, and plan to continue to scale and optimize our manufacturing processes by expanding our use of automation.

- **Invest in RaniPill capsule capabilities**. We intend to become a leader in oral biologics by continuing to invest in our technology, such as by expanding payload capacity and developing novel biologic formulations to maximize the number of therapeutic targets and addressable markets.

- **Expand our reach by selectively entering into strategic partnerships**. We are opportunistically exploring strategic partnerships to enable us to expand our commercial reach and enable oral administration of a broader array of biologics.

- **Continue to strengthen our intellectual property portfolio**. Our patent portfolio has helped establish us as a leading oral biologics company. We plan to continue to innovate and expand our intellectual property by developing novel formulations and new applications of the RaniPill capsule.

Rani LLC was founded by Mir Imran, our Chairman of the Board, who continues to contribute to our strategic planning and product development. Mir Imran has a background in medicine and engineering, is a prolific inventor, and a serial entrepreneur, having founded more than 20 life sciences companies.

Our Platform Technology

Each of our product candidates is a RaniPill capsule containing a biologic. We may use the term RaniPill platform herein to refer to the physical structure and/or mechanisms of the RaniPill capsule absent a biologic.

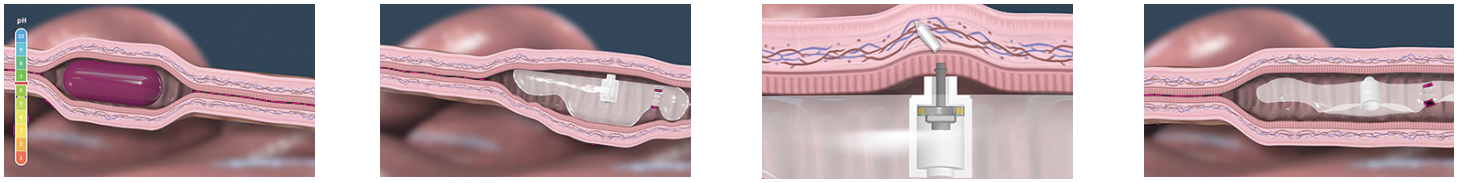
Our clinically tested RaniPill delivery platform described below is intended to be capable of delivering up to a 3 mg dose of any drug. We are also developing a high-capacity version known as the RaniPill HC, which is in preclinical stage and which is intended to enable delivery of drug payloads up to 20 mg.

The RaniPill capsule

The RaniPill capsule is a versatile, drug-agnostic, orally ingestible pill approximately the size of a fish oil or calcium pill or a ‘000’-sized capsule.

The capsule includes a proprietary coating designed to withstand stomach acid but dissolve in the jejunum portion of the small intestine. Dissolution of the coating leads to a series of steps that result in a biologic being delivered into the highly vascularized wall of the small intestine so that the biologic can be absorbed into the vasculature and enter the bloodstream.

The following illustrations depict the clinically tested RaniPill capsule traversing through and deploying within a lumen of the intestine illustrated in cross section.



Panel A Panel B Panel C Panel D

Panel A: As the RaniPill capsule exits the stomach and enters the small intestine, the higher pH environment of around 6.5 in the jejunum begins to dissolve the coating.

Panel B: Dissolution of the coating exposes a balloon in the RaniPill capsule to intestinal fluid which results in the balloon self-inflating.

Panel C: Inflation of the balloon orients a microneedle contained within the balloon approximately perpendicular to the intestinal wall. The pressure in the balloon delivers the microneedle, which is smaller than a grain of rice, into the intestinal wall. The microneedle dissolves in the moist tissue environment, and the drug is absorbed into the vasculature and thereby into the bloodstream.

Panel D: The balloon immediately deflates upon microneedle delivery and is excreted through normal digestive processes.

Features and advantages of the RaniPill capsule

The RaniPill capsule is a result of years of internal research activities to develop and optimize specialized components and systems that make up the RaniPill capsule. Several advanced features are included in the RaniPill capsule, providing what we believe to be significant and sustainable competitive advantages in the field of oral delivery of biologics. Some of the features and advantages of the RaniPill capsule are listed below.

- *High bioavailability and high dosing accuracy* – Our studies conducted to date have demonstrated that the RaniPill capsule delivers biologics with bioavailability that is generally comparable to dosing subcutaneously, with high dosing accuracy. This level of bioavailability is similar to subcutaneous injection and is significantly higher than that of currently marketed chemistry-based oral biologics, the best attempts of which to our awareness have resulted in peptides being delivered with only low single-digit bioavailability.

- *Protective coating avoids deployment in the stomach* – The proprietary protective coating formulation is pH-sensitive, enabling the RaniPill capsule to maintain its integrity through the acidic environment in the stomach for deployment in the small intestine.

- *Protection of the drug prior to delivery* – The microneedle is protected from intestinal fluid until delivery, and then the rapid injection of the microneedle into the intestinal wall during delivery provides for little or no exposure of the microneedle to intestinal fluid. This technique serves to overcome the body's natural mechanisms that break biologics down in the harsh GI environment and thus block biologics from reaching the blood stream from within the intestine.

- *Proprietary microneedle design preserves drug integrity and sterility* – The proprietary dissolvable microneedle is made from injectable-grade, sterile materials. The microneedle is designed to accommodate in its hollow interior a biologic formed into a microtablet of up to 3 mg. Once exposed to body fluids, the microneedle begins to dissolve and expose the biologic for absorption into the vasculature. The sealed microneedle preserves the integrity and sterility of the biologic until the microneedle dissolves.

- *Delivery of the microneedle in both fed and fasted states* – The RaniPill capsule is designed to deliver the microneedle even if the patient ingests the RaniPill capsule with or after a meal, which we expect will allow for more flexible dosing regimens and improved patient adherence to a given regimen.

- *Self-inflating balloon ensures reliable delivery* – The proprietary self-inflating balloon is designed to provide optimal pressure to deliver the microneedle. In addition, the novel design of the balloon positions the microneedle

approximately perpendicular to the intestinal wall for reliable drug delivery, with up to 80% drug delivery success observed in our clinical trial of RT-101. The self-inflating balloon has been designed to minimize GI discomfort.

- *Drug-agnostic design provides a standardized platform* – The RaniPill capsule is designed to deliver any molecule irrespective of molecular mass. This allows a single platform design to be used with multiple drugs.

- *Optimized dosing regimen* – Based on the confirmed patient preference for oral delivery alternatives, we expect better treatment adherence with oral dosing versus injections, thus enabling a more physician-selectable dosing regimen. For example, the RaniPill capsule may enable a regimen of small daily doses, versus larger less-frequent doses for injections prescribed to improve treatment adherence; small daily dosing may allow for therapeutic exposures to be maintained within a narrow range, whereas larger less frequent injection dosing can lead to large variations in therapeutic exposure, which can directly contribute to adverse events, loss of efficacy, and increased propensity for immunogenic response.

Studies underscoring the advantages of the RaniPill capsule

Platform study in humans confirming reliable deployment in fed and fasted states

An initial clinical assessment of the RaniPill capsule (without a drug) was conducted to evaluate the safety and tolerability of the platform and to compare device performance in fed and fasted states in twenty healthy volunteers, divided into two groups of ten. In one group, the RaniPill capsule was administered under fasting conditions, while the other group was given the RaniPill capsule 45 minutes after consumption of a standardized meal. X-ray imaging was used to monitor transit of the device as well as its deployment. The evaluation involved the use of capsules that were not equipped with a drug or needle. The goals of this study were tolerability and effects of food on the RaniPill capsule's functionality, as measured by the time required for the RaniPill capsule to reach and deploy in the small intestine.

The total transit time for the RaniPill capsule was longer in the fed group than in the fasted group because the capsule remained in the stomach longer in the fed group. However, food did not impact the deployment time of the RaniPill capsule. This was confirmed via radiographic tracking which showed successful balloon inflation, indicating both that the protective coating dissolved as designed and the balloon inflated as designed, regardless of the presence of matter in the lumen of the intestinal tract.

No volunteers reported difficulty in swallowing the capsule, nor did any study participant report experiencing pain or sensing an awareness upon balloon deployment.

Patient and physician survey indicating strong preference for pills over injections even for infrequent dosing

We commissioned an independent third-party survey to investigate United States patient and physician preference for oral medications versus injections. The results clearly indicated that both patients and prescribing physicians would prefer pills to injections over a broad base of patient populations and treatment regimens. The results also indicate that a majority of physicians would be likely to prescribe an oral regimen as a first line therapy.

Across all patient groups, genders, ages, conditions treated, and severity of condition, there was a consistently strong preference for switching from injections to pills, even for infrequent injection regimens of up to six months.

The 611 responding patients were aged 18 years or older and presently using an injectable biologic to treat a condition. Six patient groups each included 100-103 patients with current primary treatment being injections of Simponi, Entyvio, Stelara, Prolia, Evenity, or Cosentyx. The 201 responding physicians, mostly endocrinologists and rheumatologists, were presently prescribing injectable biologics to their patients. The physicians answered questions regarding the biologics listed with respect to the patient groups as well as five additional biologics (Natpara, Forteo, Tymlos, Norditropin, and Genotropin).

The results of this extensive patient preference survey across a large and varied patient population are consistent with the results obtained from our prior patient preference survey showing, for example, that 88% of rheumatoid arthritis patients taking Humira injections once every two weeks would prefer a daily pill and 76% of patients taking Prolia once every six months would prefer a daily pill. In each patient group surveyed, at least 64% of respondents would prefer a daily pill to their current injectable treatment regimen.

Repeat-dose studies

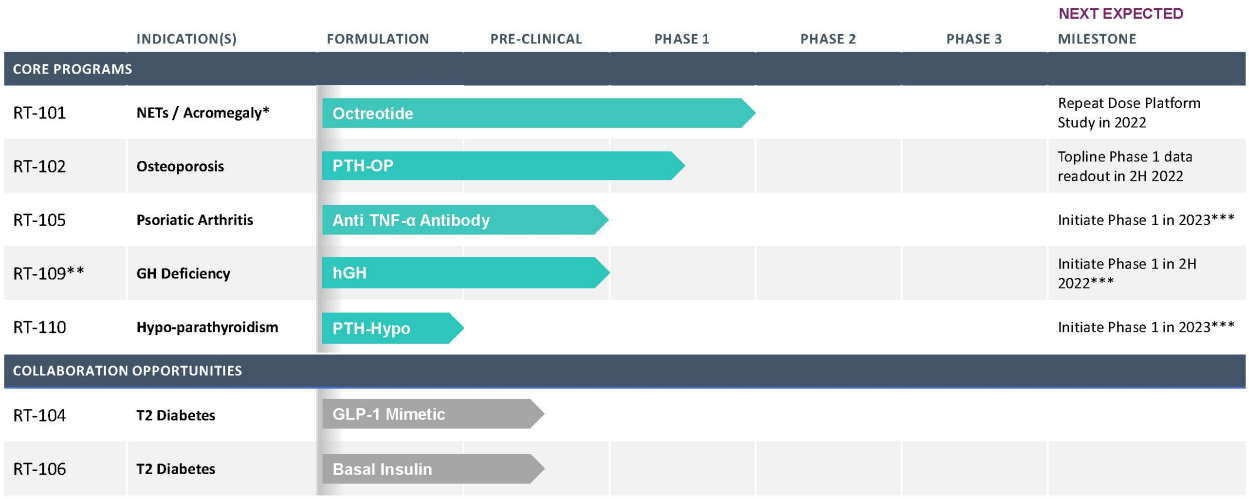
We have conducted two seven-day repeat-dose studies in canines under GLP guidelines, with no safety issues or adverse events observed. These studies indicate the potential for safe, daily dosing with the RaniPill capsule.

Our Pipeline

The broad utility of the RaniPill capsule to enable the oral delivery of biologics reliably provides us with a range of attractive development opportunities. We have prioritized development based on specific scientific, developmental, regulatory, and commercial considerations to optimize our portfolio of targeted product candidates. Our internal development targets are focused on well-characterized molecules with attractive commercial characteristics. We believe selection of these targets will allow us to potentially accelerate product approval and market launch, while also broadening patient, provider, and payor acceptance of the RaniPill capsule.

We have tested the RaniPill capsule with several biologics, in numerous preclinical studies. In March 2022, we initiated testing of RT-102 in a Phase 1 clinical trial in Australia. Previously, we completed a Phase 1 clinical trial of RT-101 in Australia.

Below is a summary of our product candidate pipeline. We believe these drugs are compatible with our technology based on their dosage and dosing schedule. Most importantly, if clinical testing proves successful and our product candidates are approved by regulatory authorities, these products would give millions of patients a convenient, oral option to effectively manage their diseases. We may complement these programs with robust partnering activities to maximize the value inherent in the RaniPill capsule.



RT-XXX refers to the RaniPill capsule containing a biologic in a proprietary Rani formulation.
** Each of these indications will require separate regulatory approvals.*
***Changchun High & New Technology Industries will have a limited opportunity to negotiate for rights within China.*
**** Timelines are subject to regulatory agency review delays.*

RT-101: Octreotide for the treatment of NETs and acromegaly

Market overview and currently approved products

Octreotide, developed by Novartis AG and sold under the brand name Sandostatin, is a truncated and modified form of the human somatostatin. Somatostatin is a peptide hormone involved in the regulation of the endocrine system. It acts as an inhibitory hormone and influences hGH release, insulin and glucagon secretion, regional blood flow, gastric acid secretion, intestinal mobility, and neuronal activity. Octreotide is a more potent mimetic with a significantly longer half-life than naturally occurring somatostatin.

Octreotide is currently approved by the FDA and EMA for the symptomatic treatment of acromegaly, a disorder involving the secretion of excessive growth hormone, as well as carcinoid syndrome, a condition involving NETs of the GI tract. Current treatment using octreotide involves painful subcutaneous injections administered three to four times daily or an extended-release formulation via painful, deep intramuscular injections every four weeks. Despite the inconvenience of the current route of administration, the worldwide market for octreotide in 2020 was approximately $2.7 billion. A chemistry-based attempt to develop an oral version of octreotide for treatment of acromegaly (MYCAPSSA from Amryt Pharma) resulted in a product with less than 1% bioavailability, which, due to this low bioavailability, was approved only for maintenance therapy of acromegaly patients on a low (100 μg) dose.

The total patient population of NETs and acromegaly in the United States is estimated to be around 200,000. Approximately 12,000 new cases of NETs and 3,000 new cases of acromegaly are diagnosed annually in the United States. The worldwide market for injectable somatostatin analogs is approximately $6.0 billion annually across both indications.

Our solution: RT-101

We are developing RT-101, the RaniPill capsule containing our novel formulation of octreotide, for oral treatment of NETs and acromegaly. We have worldwide commercial rights to RT-101. We believe that the oral delivery route provided by RT-101 has the potential to take market share from injectables and expand oral delivery of octreotide beyond the limited reach of MYCAPSSA.

Preclinical studies

RT-101 Pharmacokinetic study

Pharmacokinetic ("PK") profiles of octreotide delivered as RT-101 were obtained in conscious beagles, and compared to that of an equivalent IV dose of the commercially available product, Sandostatin®. All animals receiving RT-101 tolerated the oral administration of the capsule. For the RT-101 group, the average maximum concentration ("Cmax") was 9.9 ± 1.2 ng/ml and average Tmax for the group was 22 ± 3 minutes after payload delivery. The average absolute bioavailability of octreotide delivered via RT-101 was 78%.

RT-101 seven-day repeat dose GLP study

Tolerability and reliability of RT-101 was assessed in a seven-day administration study in canines, under GLP guidelines. RT-101 was orally administered daily to test group animals, and control group animals received an enteric coated capsule containing nonpareil sugar. Blood samples were collected after each RT-101 dose was administered to confirm successful payload delivery by measuring plasma concentrations of the drug. Plasma samples analyzed from test group animals showed that 77% of the administered devices successfully delivered the drug, with seven of eight animals having at least five successful payload deliveries over the seven-day dosing period. RT-101 was well-tolerated by all animals in the study. There were no clinical adverse effects observed in either group throughout the study duration. The GI tract was critically evaluated in all animals and no significant macroscopic or microscopic abnormalities were observed in any animal. These results demonstrated that the RaniPill capsule can be consumed on a daily basis for seven days, deploy within the targeted region of the small intestine without causing any adverse clinical effects, and remnants can be excreted without complications.

Clinical trials

Endoscopic delivery of octreotide into the jejunum of healthy volunteers

To obtain early proof-of-concept data, we evaluated PK of Sandostatin® (a commercial formulation of octreotide) delivered via a direct injection into the jejunal wall to mimic the intended route of delivery by the RaniPill capsule. Results from this study, which involved five healthy volunteers, showed a highly similar PK profile of octreotide delivered by a direct injection into the intestinal wall to that obtained with RT-101 in its Phase 1 clinical trial. (*See below RT-101 Phase 1 study*). These data indicate that a change in formulation of octreotide from liquid to solid form did not significantly affect the PK of the drug.

RT-101 Phase 1 study

We conducted a Phase 1 clinical trial with RT-101 in 62 healthy subjects to evaluate safety and tolerability as primary endpoints and bioavailability as a secondary endpoint. Bioavailability of octreotide delivered via RT-101 was 65% relative to an intravenous control group. We believe this is the first demonstration of such high bioavailability of an oral biologic in humans. To date, the best published bioavailability for oral octreotide is approximately 1%. The results of the RT-101 Phase 1 clinical trial support

the utility of the RaniPill capsule to deliver octreotide orally, and at levels of octreotide comparable to subcutaneous injection. In addition, the results indicate that the RaniPill capsule may be used for other biologics.

A similar study conducted in awake canines shows that the data from the canine model were consistent with the PK data obtained in humans, indicating that the canine is an appropriate model for octreotide.

Future clinical trials

We are currently optimizing the formulation for RT-101, to potentially enable once daily dosing. Once optimized, we will test and verify the formulation in appropriate animal models. Once the formulation is validated in preclinical studies, we plan to initiate clinical trials for the development of RT-101.

RT-102: Parathyroid hormone (PTH) for the treatment of osteoporosis

Market overview and currently approved products

Osteoporosis is a bone disease where bone mineral density and bone mass decreases, leading to a decrease in bone strength that can increase the risk of fractures. Osteoporosis affects women and men of all races and ethnic groups. Osteoporosis can occur at any age, although the risk for developing the disease increases with age.

PTH is an effective bone-building treatment for osteoporosis. PTH is a hormone secreted by the parathyroid glands that regulates serum calcium concentration and promotes bone growth. PTH therapies are delivered by daily subcutaneous injections for up to 2 years. Approximately 10 million Americans suffer from osteoporosis; however, we estimate that only a small fraction of this population is being treated with a form of PTH. While there may be other reasons for this, we believe that patient aversion to daily injections may be a major factor. As a result, non-bone-building and less effective antiresorptive drugs are used as first line therapies because they are available in oral form.

Teriparatide, a synthetic form of the natural human parathyroid hormone hPTH(1-34), is a PTH analog administered as a once-daily injection to treat osteoporosis, first developed by Eli Lilly and Company and sold under the brand name Forteo. Another PTH analog injectable is Tymlos by Radius Health, Inc., approved in 2017. A teriparatide biosimilar injectable by Pfenex, Inc. was approved in 2019. Annual sales revenue of PTH analogs and biosimilars globally in 2019 was approximately $2.0 billion.

Our solution: RT-102

We are developing RT-102, the RaniPill capsule containing our novel formulation of PTH, for oral treatment of osteoporosis. We have worldwide commercial rights to RT-102. In addition to the existing market, we believe there is an opportunity to expand the market by advancing RT-102 as a first line therapy for osteoporosis.

Preclinical studies

Dose escalation study

We conducted a preclinical study with RT-102 where PK of PTH was determined in awake beagles at varying dosage levels of teriparatide formulation. Reference PK curves were also generated using Forteo administered at the approved dose and route of delivery of 20 µg subcutaneous liquid injection. Results of this study in terms of concentration-time profiles of hPTH(1-34) are provided in the following graph.

RT-102 yielded steep increases in concentration of PTH followed by a rapid decline to baseline levels, similar to the subcutaneous controls. Such a profile is desirable to produce an osteoanabolic effect. The overall duration of drug exposures remained short with drug concentrations returning to baseline levels within three hours. RT-102 was well tolerated by all animals with no significant adverse events noted at any of the doses tested.

Seven-day repeat dose GLP study with RT-102

Tolerability and reliability of RT-102 was assessed in a multi-day administration study in canines, under GLP guidelines. RT-102 was administered daily to eight test animals, and another four control animals received an enteric coated capsule containing nonpareil sugar followed by a seven-day washout period. Blood samples were collected after each RT-102 dose was administered to determine payload delivery by measuring plasma concentrations of the drug. The RaniPill capsule was well-tolerated by all animals in the study. Plasma samples analyzed from test group animals showed that 61% of the administered devices successfully delivered the

drug. There were no clinical adverse effects observed in either group throughout the study duration. The GI tract was critically evaluated in all animals and no significant macroscopic abnormalities were observed in any animal.

Clinical trials

In March 2022, we initiated a Phase 1 clinical trial of RT-102 in Australia. The single-center, open label, Phase 1 study will evaluate the pharmacokinetics, safety, and tolerability of parathyroid hormone administered via the RaniPill capsule in healthy adult women volunteers. RT-102 will be ingested orally, administering a single dose of parathyroid hormone. Doses given will range from 20 to 80 µg.

RT-105: Anti-TNF-alpha antibody for the treatment of psoriatic arthritis

Market overview and currently approved products

Anti-TNF-alpha antibodies such as adalimumab are used to treat a range of inflammatory disorders and are among the largest selling class of pharmaceutical drugs globally as measured by revenue. Adalimumab, sold by AbbVie Inc. under the brand name Humira, generated sales of approximately $20.7 billion in 2021. Adalimumab is approved by the FDA and EMA to treat a range of autoimmune conditions, including psoriasis, rheumatoid arthritis, and Crohn's disease. In the U.S. alone, there are an estimated 1.5 million patients with rheumatoid arthritis, 7 million with psoriasis, and 3 million with Crohn's disease or ulcerative colitis. Currently, six Humira biosimilars have been approved by the FDA, but will not enter the U.S. market until 2023, per licensing agreements with the originator.

Patients who use adalimumab administer the drug through a painful subcutaneous injection once every two weeks. Despite the painful injections required to administer it, adalimumab was the best-selling drug globally in 2020.

Our solution: RT-105

We are developing RT-105, the RaniPill capsule containing our novel formulation of adalimumab, for oral treatment of a host of inflammatory conditions, beginning with treatment of psoriatic arthritis and later expanding to other indications for which TNF-alpha inhibitors are approved. We have worldwide commercial rights to RT-105. We believe that the development of an orally administered anti-TNF-alpha antibody represents a significant market opportunity.

Our preclinical studies and clinical trials with adalimumab have demonstrated the successful delivery of a large antibody via the RaniPill platform. Moreover, our studies indicate that serum concentrations comparable to the approved subcutaneous dosing method can achieved for antibody therapies using the RaniPill platform, providing compelling evidence that the RaniPill capsule could be a viable alternative to painful subcutaneous antibody injection therapies.

Preclinical studies

We evaluated the performance of RT-105 containing an adalimumab biosimilar in awake canines and compared it to the performance of the adalimumab biosimilar given by way of subcutaneous and intravenous injection. The PK profile for RT-105 was comparable to the profile for subcutaneous administration, and mean bioavailability for RT-105 was 49%, compared to 46% with subcutaneous injection.

Clinical trials

Endoscopic administration of adalimumab into the jejunum of healthy human volunteers

To assess whether the observations from preclinical studies regarding absorption of adalimumab through the intestinal wall translate to clinical trials, we conducted an endoscopic study in humans. The study involved 10 healthy volunteers and compared the PK of an approved formulation of adalimumab injected endoscopically into the jejunal intestinal wall, which mimics the RaniPill capsule route of administration, to that of an identical dose injected subcutaneously. Blood samples were obtained at prescribed intervals during a 14-day study period.

PK profiles were similar with no notable differences observed in either area under curve ("AUC") or Cmax. The mean AUC was 62.7 ± 11.4 µg/ml*day*kg/mg for the subcutaneous group and 45.0 ± 29.0 µg/ml*day*kg/mg for the intrajejunal group. No serious adverse events were noted in this study, and adverse events of headache and flu-like symptoms after intrajejunal administration resolved within 48 hours. The results are consistent with data obtained in preclinical studies, confirming intrajejunal delivery as a viable route of delivery for adalimumab.

Phase 1

We plan to initiate a Phase 1 clinical trial of RT-105 in healthy volunteers in 2023.

RT-109: Human growth hormone (hGH) for the treatment of growth hormone deficiency

Market overview and currently approved products

Juvenile growth disorders and adult growth hormone deficiency affect between 30,000 and 80,000 people in the U.S. Growth hormone is a peptide that is secreted by the pituitary gland and promotes cell growth, proliferation, and regeneration. This anabolic hormone also stimulates insulin-like growth factor 1 which has growth enhancing effects on a broad set of tissues.

HGH is approved by the FDA for the treatment of growth hormone deficiency. A recombinant form of hGH is used to treat juvenile growth disorders and adult growth hormone deficiency. Treatment involves painful daily subcutaneous hGH injections often over multiple years. Genentech, Inc., now part of Roche Holding AG, pioneered the use of recombinant hGH, receiving FDA approval for its commercial sale in 1985. HGH is currently available from a number of sources and is sold by Eli Lilly and Company under the brand name Humatrope and by Genentech, Inc. under the brand name Nutropin. Worldwide sales of hGH were approximately $3.9 billion in 2020 and are projected to reach $9.2 billion by 2030.

Our solution: RT-109

We are developing RT-109, the RaniPill capsule containing our novel formulation of hGH, for oral treatment of growth hormone deficiency. We have worldwide commercial rights to RT-109. We have entered into an Evaluation and First Right of Refusal Agreement with Changchun High & New Technology Industries (“CCHN”), which includes limited rights to negotiate commercialization rights for RT-109 in China. Because patients typically need daily injections of hGH over several years, we believe that a once-daily oral version would transform treatment regimens for both pediatric and adult patients.

Preclinical studies

We are conducting preclinical PK studies with RT-109.

Clinical trials

We plan to initiate a Phase 1 clinical trial in healthy volunteers in the second half of 2022.

RT-110: PTH for the treatment of hypoparathyroidism

Market overview and currently approved products

Hypoparathyroidism is a rare condition of low levels of serum PTH resulting in low calcium levels in the blood. The prevalence of hypoparathyroidism in the United States is approximately 115,000 people. PTH is currently approved for the treatment of hypoparathyroidism by the FDA and EMA. PTH treatment requires lifelong daily injections but has suboptimal efficacy. Treatment of hypoparathyroidism is most effective with consistent and sustained plasma levels of PTH.

Our solution: RT-110

We are developing RT-110, the RaniPill capsule containing our second novel formulation of PTH, for oral treatment of hypoparathyroidism. We have worldwide commercial rights to RT-110. We believe that there is an unmet need for a delivery method more convenient than injection, and we further believe that the RaniPill capsule will provide for a treatment regimen that can better maintain consistent and sustained plasma levels of PTH than the current treatment regimen of daily PTH injections.

Preclinical studies

We are creating a sustained release formulation of RT-110 which will provide for continuous exposures of the hormone required to normalize the calcium imbalance in hypoparathyroidism patients. We plan to conduct preclinical PK studies of RT-110 prior to initiating human clinical studies.

Clinical trials

We plan to initiate a Phase 1 clinical trial in healthy volunteers in 2023.

Collaboration Opportunities

We envision complementing our core programs with robust partnering activities to maximize the value inherent in the RaniPill capsule.

One market segment for which we believe that the RaniPill capsule can add significant value is the treatment of diabetes. The CDC estimates that approximately 10% of the U.S. population have diabetes. Of these, 90% to 95% suffer from Type 2 diabetes, which is characterized by progressive hyperinsulinemia (pre-diabetes or insulin resistance) followed by hyperglycemia as a result of the body's inability to properly respond to insulin and, eventually, produce sufficient insulin. Diabetes has no known cure and can give rise to a host of serious and often life-threatening complications, including cardiovascular disease, neuropathy, retinopathy, cognitive impairment, and stroke. This results in estimated economic costs totaling over $300.0 billion in the United States annually. Further, according to the CDC, about a third of Americans are pre-diabetic, a health condition in which blood glucose levels are higher than normal for long periods as a result of progressing insulin resistance.

In addition to the potential of the RaniPill capsule to replace treatment by injections, we believe that an oral treatment option could be adopted earlier in the treatment of diabetes or adopted to treat pre-diabetic patients, which could result in improved outcomes in the pre-diabetic and diabetic patient populations.

Due to the size, cost, and complexity of clinical trials required to address the diabetes market, our strategy is to partner with large pharmaceutical companies to create oral versions of injected diabetes drugs, such as GLP-1 mimetics and basal insulin.

RT-104: GLP-1 mimetic for the treatment of Type 2 diabetes

Market overview and currently approved products

GLP-1 mimetics are used to treat Type 2 diabetes by increasing insulin secretion and suppressing glucagon secretion. Several large pharmaceutical companies market GLP-1 mimetics, and the global combined sales of these were estimated to be $12.7 billion in 2020.

Our solution: RT-104

We are developing RT-104, the RaniPill capsule containing our novel formulation of a GLP-1 mimetic, for oral treatment of Type 2 diabetes. Based on a survey we commissioned, we found that 89% of endocrinologists prescribing GLP-1 mimetics were likely to switch their prescription to a once-daily pill if available, and we believe that RT-104 would be more appealing to patients than the presently available injectable form. We have worldwide commercial rights to RT-104.

Clinical trials

Clinical study with Byetta

We conducted a proof-of-concept study in humans with Byetta, a branded form of the GLP-1 mimetic exenatide. Five healthy subjects were dosed with Byetta via an intrajejunal injection to mimic the RT-104 route of administration and then, after a washout period, the subjects were dosed with a subcutaneous injection of Byetta. PK profiles of exenatide were similar between subcutaneous injection and intrajejunal injection. The AUC for intrajejunal injection was 27 ± 3 ng/ml*min and for subcutaneous injection was 23 ± 2 ng/ml*min. These data provide evidence that delivery of exenatide via the intrajejunal route of the RaniPill capsule will yield bioavailability similar to subcutaneous injections.

While we continue to optimize our formulation to increase drug half-life, we plan to pursue partnership opportunities with large pharmaceutical companies to further develop and commercialize RT-104.

RT-106: Basal insulin for the treatment of Type 2 diabetes

Market overview and currently approved products

In addition to oral anti-diabetic drugs and lifestyle changes, patients with advanced Type 2 diabetes manage their blood sugar by administering painful daily injections including one or both types of: (1) a single injection of a longer-acting insulin called basal insulin, which provides a steady baseline of insulin to offset insulin resistance and reduce hyperinsulinemia; and (2) a rapid-acting insulin called mealtime insulin, which is added in the later stages of the disease and injected several times daily approximately 20 to 30 minutes before the ingestion of a meal. Worldwide sales of basal insulin totaled an estimated $11.0 billion in 2019. Several long-acting insulin biosimilars are available in the market today.

We expect that the market for basal insulin would further expand in the currently unserved 'pre-diabetic' market segment if an oral version of basal insulin were available. Clinical research has indicated that early intervention with daily injections of basal insulin could prevent or slow down disease progression in pre-diabetic patients, as steady-state, low levels of insulin would reduce the hyperinsulinemia caused by insulin resistance. Despite this knowledge, pre-diabetic patients currently are not prescribed basal insulin or indeed any injectable as a first-line therapy, and instead are advised lifestyle changes and are prescribed only oral anti-diabetic drugs to manage the disease. However, in market research studies we commissioned, we found that approximately 81% of surveyed endocrinologists would initiate basal insulin therapy for diabetic patients earlier if an oral option were available and 87% of patients using insulin were likely to switch to a once-daily pill if available.

Our solution: RT-106

We are developing RT-106, the RaniPill capsule containing our novel formulation of basal insulin, for oral treatment of Type 2 diabetes. We have worldwide commercial rights to RT-106. We intend to pursue partnership opportunities with large pharmaceutical companies to co-develop and commercialize RT-106.

We believe that RT-106 would have significant benefit to the millions of people living with Type 2 diabetes who presently inject longer-acting basal insulin daily. Additionally, our RT-106 program aims to address the unserved pre-diabetic patients who would benefit from using basal insulin. Further, because of the solid form of the drug in the RaniPill capsule, generic or rapid acting insulin can be converted to a long-acting formulation using pharmaceutical approaches, enabling additional therapeutic regimen options.

Preclinical studies

As a proof-of-concept to demonstrate the viability of the RaniPill capsule to deliver insulin orally, we evaluated the efficacy of rapid-acting human insulin delivered via the RaniPill capsule in a preclinical study using anesthetized juvenile swine under a euglycemic glucose clamp. In this study, 20 IU of rapid-acting human insulin was delivered via the RaniPill capsule in one group and via subcutaneous injection in another group, and the associated PK and pharmacodynamic ("PD") profiles compared. Serum samples were taken at frequent intervals over a seven-hour period to quantify serum insulin levels with glucose infusion rates adjusted to maintain plasma glucose levels between 60 and 80 mg/dl (euglycemic glucose clamp). The changes in glucose infusion rates reflect the glucose disposing action of insulin.

Results of this study demonstrate that rapid-acting insulin was successfully delivered via the RaniPill capsule, comparable to subcutaneous injection. The AUC for delivery via RaniPill capsule was 83± 18 and AUC for subcutaneous injection was 81 ± 10 pmol/L.min.

Our Regulatory Pathways

Test, approval, manufacture, and sale of our products are subject to federal, state, local, and foreign statutes and regulations. We, along with our third-party contractors, will be required to navigate the various preclinical, clinical, and commercial approval requirements of the governing regulatory authorities of the countries in which we wish to conduct studies or seek approval or licensure of our product candidates. We detail the U.S. regulatory pathway in this section. In the United States, the FDA regulates biologic products such as ours under the FDCA and the PHSA and their implementing regulations. Other jurisdictions will have somewhat different requirements.

FDA centers: CDRH, CBER, CDER, OCP

Each of our product candidates includes the RaniPill platform and a biologic. The RaniPill platform if marketed without a biologic would be classified by the FDA as a device regulated by the Center for Devices and Radiological Health ("CDRH"). A biologic if marketed without the RaniPill platform would be classified by the FDA as either a "biological product" regulated by the

Center for Biologics Evaluation and Research ("CBER") or a "drug" regulated by the Center for Drug Evaluation and Research ("CDER"). The classification as biological product or drug would depend on the FDA's definition of "biological product" with respect to the active ingredient of a product candidate at the time a request for regulatory license or approval is submitted to the FDA to market that product candidate. The FDA currently defines a biological product as "a virus, therapeutic serum, toxin, antitoxin, vaccine, blood, blood component or derivative, allergenic product, protein, or analogous product, or arsphenamine or derivative of arsphenamine (or any other trivalent organic arsenic compound), applicable to the prevention, treatment, or cure of a disease or condition of human beings," and defines a protein as an "alpha amino acid polymer with a specific, defined sequence that is greater than 40 amino acids in size."

Because our product candidates each include a device and a biologic, it is expected that each of our product candidates will be classified by the FDA as a combination product. The FDA is charged with assigning a center with primary jurisdiction, or a lead center, for review of a combination product. The designation of a lead center generally eliminates the need to receive approvals from more than one center. The determination of which center will be the lead center is based on the "primary mode of action" of the combination product, although the other centers may participate in review. The FDA has also established an Office of Combination Products, ("OCP"), which serves as a focal point for combination product issues for agency reviewers and industry. OCP is also responsible for developing guidance and regulations to clarify the regulation of combination products, and for assignment of the FDA center that has primary jurisdiction for review of combination products where the jurisdiction is unclear or in dispute.

It is expected that most of our product candidates will include a biologic within the FDA's definition of "biological product" and some of our product candidates may include a biologic that will be considered a "drug." CDER is the lead center for review of therapeutic proteins at this time, thus most of our product candidates will have CDER as the lead center.

For each product candidate, we will perform numerous preclinical laboratory tests and animal studies, as well as perform human clinical trials. Preclinical laboratory tests, preclinical animal studies, and/or clinical trials may be ongoing concurrently for a product candidate in focused studies to assess various properties of a formulation and/or the platform of the product candidate. Animal studies require pre-approval by an independent IRB or ethics committee. Human studies in the United States require pre-approval by the FDA. For FDA approval of a human trial, if the trial will involve a biologic alone then an IND application will be needed, and if the trial will involve the RaniPill platform alone then an IDE application will be needed. For a clinical trial in which the RaniPill platform will be used in combination with a biologic, we must submit an IDE application if the lead center is CDRH or an IND application if the lead center is CBER or CDER. IND and IDE applications are discussed in more detail below.

Based on discussions with the FDA, we plan to test the RaniPill platform absent a biologic and create a Master File for the platform alone which can be referred to in subsequent FDA submissions.

Master file for the RaniPill platform

Our RaniPill platform will be used across multiple products and as such, the same device information may be applicable to and used to support multiple submissions to the FDA for our combination products. Based on discussions with the FDA and guidance we have received from CDRH and OCP, we intend to separately evaluate the safety and tolerability of the RaniPill capsule in an IDE study, absent a drug.

The IDE study is expected to confirm the safety results already obtained from the various studies we have performed, including repeat-dose GLP studies in canines. The IDE study will evaluate the safety and tolerability of the RaniPill capsule in an eight-week healthy volunteer study (n=40) with daily administration of a RaniPill capsule absent a biologic. The study will also evaluate the effect of food on the delivery performance of the RaniPill capsule.

After completion of the IDE study, we plan to create a Master File for the RaniPill platform with CDRH. The Master File would include at least facilities and manufacturing procedures and controls, verification and validation reports, biocompatibility test data, GLP canine study data, and IDE clinical trial data.

A master file is not itself approved by the FDA, but rather is a mechanism to provide information regarding the device constituent part when the same information is applicable to multiple approval submissions. The information in the RaniPill master file would be applicable to any of our product candidates and could be referenced in our IND, IDE, BLA, or NDA submissions.

Approval or license to market the RaniPill capsule

The FDA has specified a BLA path for seeking a license to market a biological product and an NDA path for seeking approval to market a drug. It is expected that most of our product candidates will follow the BLA path while some may follow the NDA path.

Our current pipeline includes well-characterized biologics that have been in clinical use for several years. We believe that we may be able to leverage the FDA's prior conclusions of safety, purity, and potency for already-approved products in our own BLA or NDA. The degree to which we may be able to reduce the burden on our own development may depend on whether the API is the same as the original approved product. Additionally, because certain products originally approved under an NDA have been reclassified by the FDA and would now follow a BLA pathway, it is unclear whether conclusions regarding such reclassified products can be leveraged in our BLA submissions. We intend to have the scope of the leverage that will be available from already-approved biologics clarified on a product-by-product basis for each product candidate in pre-IND meetings with the FDA.

CBER and CDER may ask for additional testing for specific biologics, disease indications, or patient populations.

Additional information regarding regulatory pathways is provided in the "Government Regulation" section below.

Evaluation Agreements

Novartis evaluation agreement

In May 2015, we entered into an Evaluation and First Rights Agreement (the "Novartis Agreement"), with Novartis Pharmaceuticals Corporation, or Novartis, in which we agreed to perform certain specified research for Novartis to evaluate two specified Novartis compounds with our oral drug delivery technology. In August 2019 and July 2020, we amended the agreement to focus on one compound. Under the agreement, we granted Novartis an exclusive, fully paid-up license to the intellectual property it generates for the sole purpose of delivering that compound via any delivery route other than through use of any microtablet. Novartis will own intellectual property generated related to that compound and we will own all other intellectual property regardless of inventorship. We are currently in the process of completing our own internal testing of higher capacity payloads in the RaniPill capsule. Certain data from such testing was shared with Novartis pursuant to the July 2020 amendment. Following delivery of a report by us, Novartis will have a right of first negotiation to obtain rights to research, develop, manufacture, and commercialize a specified class of biologics formulated with our delivery technology ("Novartis Field") for a period of four months. If we and Novartis do not reach an agreement in this period, for a period of another six months, Novartis will have the opportunity to make a topping bid on any third-party transaction proposal in the Novartis Field. Unless earlier terminated, the Novartis Agreement will expire upon the expiration of the last-to-expire time periods for which Novartis has a right of first negotiation or a right to make a topping bid. Prior to these periods, Novartis may terminate the Novartis Agreement at any time for convenience, and we and Novartis may terminate the Novartis Agreement for the other party's uncured material breach.

Novartis has paid us an aggregate of $7.0 million under the Novartis Agreement as of December 31, 2021 and made an equity investment of approximately $5 million in our Series C preferred unit financing. As part of the Organizational Transactions, the Series C preferred units were exchanged for 404,638 Paired Interests. We do not expect any future payments under the Novartis Agreement unless we and Novartis negotiate a new agreement constructed around a higher-capacity payload system.

Takeda evaluation agreement

In November 2017, we entered into an Evaluation and First Rights Agreement (the "Takeda Agreement") with Shire International GmbH, which was subsequently acquired by Takeda Pharmaceutical Company Limited ("Takeda"). This agreement is now terminated.

Changchun High & New Technology Industries evaluation agreement

In August 2017, we entered into an Evaluation and Right of First Refusal Agreement, or the CCHN Agreement, with CCHN in which we agreed to perform and share data from preclinical testing of RT-109. We will provide CCHN with reports and data resulting from our performance of our preclinical testing and CCHN will have a non-exclusive right to use this information in connection with specified activities. CCHN will own intellectual property generated under the CCHN Agreement that comprises of or relates to certain materials and assays provided by CCHN and we will own all other intellectual property generated under the CCHN Agreement. Following the completion of the evaluation program, we and CCHN will negotiate, for a period of 90 days, an agreement to provide CCHN with commercial rights for RT-109 in China. Additionally, we granted CCHN a right of first refusal with respect to commercial rights for RT-109 in China for a period of two years following the completion of our preclinical testing, pursuant to which CCHN will have a period of 90 days following our receipt of a third-party proposal for commercial rights for RT-109 in China to make a competing offer for such rights. The CCHN Agreement will expire upon the expiration of CCHN's right of first refusal, or up to 90 days longer if CCHN makes a bid under its right of first refusal. Prior to these periods, CCHN may terminate for convenience upon 30 days' notice, and we and CCHN may terminate for the other party's material uncured breach.

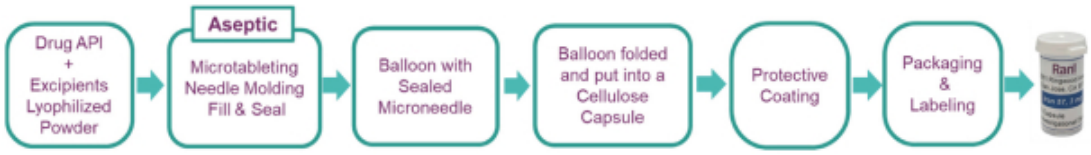
There are no payment obligations under the CCHN Agreement.

Manufacturing and Quality Assurance

We currently manufacture and assemble RaniPill capsules at our facilities in San Jose and Milpitas, California. We also inspect, package and ship finished products to support our clinical trials from this facility. We are intentionally pursuing a vertically integrated manufacturing strategy, which we believe offers significant advantages, including rapid product iteration, control over our product quality, and the ability to rapidly scale our manufacturing capacity. This capability also allows us to develop future generations of products while maintaining the confidentiality of our intellectual property.

Each RaniPill capsule is assembled through a process which involves a series of integrated, well-developed, and highly reproducible steps that have been optimized to consistently produce capsules of high reliability.

The RaniPill capsule manufacturing process



A drug API or drug substance combined with excipients specific to the drug API or drug substance is lyophilized and compressed into a solid microtablet form. The microtablet is sealed inside the microneedle and is then packaged in a tiny vial under aseptic conditions. The vial containing the microneedle is incorporated in the RaniPill capsule, which is given a protective coating. Each of these steps in the manufacturing process has been subjected to rigorous testing and process qualification procedures to ensure manufacturing consistency. We rely on non-exclusive, third-party relationships with several manufacturers for the drug API or drug substance. We maintain in-house capabilities related to the aseptic manufacturing, following FDA Current Good Manufacturing Practice regulations for drugs that contain minimum requirements for the methods, facilities, and controls used in manufacturing, processing, and packing of a drug product ("cGMP") guidelines. Our personnel have significant technical, manufacturing, analytical, quality, regulatory, and project management experience to oversee our third-party manufacturers and to manage in-house manufacturing and quality operations in compliance with regulatory requirements.

The current semi-automated manufacturing process will be sufficient to support our currently planned clinical trials. In parallel, we are in the process of automating the entire manufacturing process, which we anticipate being complete by the time the RaniPill capsule is commercialized.

Commercialization

Markets

The key markets for our products, once approved, will be in the United States, Europe, and Asia.

Sales and supply infrastructure

Development of our product candidates includes identifying sources that can provide consistent quality and increasing quantities of APIs, or drug substance to meet our needs through in vitro studies, preclinical studies, and clinical trials, and later into commercialization. We currently do not have agreements in place for long-term supplies of any API or drug substance. Availability of API or drug substance supply may inform our decisions regarding which product candidates present the best development opportunities.

Currently we do not have any approved products. We intend to either develop the commercialization sales and supply infrastructure as our product candidates are approved, or partner with pharma companies for commercialization.

Coverage and reimbursement of approved products by third-party payors

Sales of any product, if approved, depend in part on the extent to which such product will be covered by third-party payors, such as federal, state, and foreign government healthcare programs, commercial insurance, and managed healthcare organizations, and the level of reimbursement, if any, for such product by the payors. Decisions regarding whether to cover a product, the extent of coverage, and the amount of reimbursement to be provided are made separately, and these decisions are made on a plan-by-plan basis because there is no uniform policy for coverage and reimbursement. As a result, one payor's decision to cover a

particular product does not ensure that other payors will also provide coverage for the product, or that any of the reimbursement rates will be adequate.

Third-party payors often rely upon Medicare coverage policy and payment limitations in setting their own coverage policy, formulary, and reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific, clinical, and/or cost-effectiveness support for the use of our products to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance.

For products administered under the supervision of a physician, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, separate reimbursement for the treatment or procedure in which the product is used may not be available, which may impact physician utilization.

In addition, the U.S. government, state legislatures, and foreign governments have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement, and requirements for substitution of generic products when available. Third-party payors are increasingly challenging prices charged, examining medical necessity, and reviewing cost effectiveness in addition to questioning safety and efficacy. A decrease in, or decision to stop, payor reimbursement for a product could reduce physician prescribing of, and patient demand for, the product.

Competition

Our industry is highly competitive and subject to rapid and significant technological changes as researchers learn more about diseases and develop new technologies and treatments. Key competitive factors affecting the commercial success of product candidates we may develop are likely to be efficacy, safety and tolerability profile, reliability, convenience of administration, price, and reimbursement.

Broadly speaking, we will face competition from current and future (generic or biosimilar) manufacturers of the branded injectable versions of our pipeline drugs, manufacturers such as AbbVie Inc., Eli Lilly and Company, Novartis AG, Roche Holdings AG, etc. However, we believe that oral biologics have the potential to take significant market share from current injectable therapies. We also believe that oral biologics have the potential to expand existing markets by an early reach into new patient populations that are averse to taking injections.

We are aware of a few companies that are pursuing oral biologics through either device-based or chemistry-based technologies. Early stage device-based technologies such as the SOMA and LUMI from the Novo Nordisk-MIT collaboration were reported to be in preclinical stages several years ago. Chemistry-based oral delivery companies include Oramed Pharmaceuticals, Inc., Entera Bio Ltd., Applied Molecular Transport Inc., Protagonist Therapeutics, Inc., i2O, Therapeutics, Progenity, Inc., Intract Pharma, and two with recently approved oral peptide products – Amryt Pharma (*Mycappssa*) and Novo Nordisk A/S (*Rybelsus*). Chemistry-based approaches have limited applications because they work only for small peptides and, even then, with low (often less than 1%) bioavailability, far lower than injections. In contrast, our versatile technology is designed to deliver biologics, from small peptides to large proteins, irrespective of molecular mass and with bioavailability similar to that of injections.

Environmental impact

We have instituted policies and procedures related to appropriate chemical and biological material handling, use, and disposal in our facilities, and we train our employees on these policies and procedures.

Regulations in certain jurisdictions may require us to submit with our marketing approval request an environmental impact assessment related to our biologics, our RaniPill platform, or both. Such assessments could cause significant expenditures. We may be able to reduce expenditures related to these assessments by our strategy of using biologics already approved for marketing.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain protection for our current and future product candidates and the technologies used to develop and manufacture them. Our development efforts have enabled us to construct an extensive intellectual property portfolio that we believe provides us a competitive advantage. Our policy is to seek to protect our proprietary position through patents, trademarks, trade secrets, domain names, intellectual property assignment agreements, confidentiality agreements, and facility and network security measures. Some of our intellectual property is in-licensed. We believe that our intellectual property portfolio provides good coverage for our current and pipeline product candidates.

For information regarding the risks related to our intellectual property, see the section titled *"Risk Factors— Risks Related to Our Intellectual Property."*

Patents

We have built a patent portfolio globally around several aspects of the current and future generations of our technology. We file new patent applications as we conduct research and development, initiate new programs and monitor the activities of others. Generally, issued patents are granted a term of 20 years from the earliest claimed non-provisional filing date if all fees continue to be paid. In some cases, the term of a United States patent may be shortened by terminal disclaimer, such that its term is reduced to end with that of an earlier-expiring patent. In some cases, U.S. patent term can be adjusted to recapture a portion of delay by the U.S. Patent & Trademark Office ("USPTO") in examining the patent application (patent term adjustment) or extended to account for term effectively lost as a result of the FDA regulatory review period (patent term extension), or both.

Our initial patent family has a priority date in 2009, with patent term expected to extend into at least 2030 if all fees are paid. This patent family claims many device aspects of the RaniPill capsule, and the delivery of a wide variety of biologics using the RaniPill capsule. Patents and patent applications in this core family number more than 230. As of January 14, 2022, this patent family included 65 patents issued in the United States and 126 patents issued in other jurisdictions (in Australia, Austria, Belgium, Canada, China, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom), with applications pending in the United States, Australia, Canada, China, Europe, Hong Kong, India, and Japan.

Our microtablet patent family includes claims covering the microtablets delivered by the RaniPill capsule. This patent family has a priority date in 2014, includes several dozen patents and patent applications, and is expected to have patent terms extending into at least 2035 if all fees are paid. As of January 14, 2022, this patent family included 8 patents issued in the United States, 2 patents issued in Australia, and 1 patent issued in China, with applications pending in the United States, Australia, Canada, China, Europe, India, and Japan.

We own numerous additional patents and patent applications, with claims to additional biologics, pharmacologic properties of various biologics and various next generation devices, with applications pending in the United States, Australia, Brazil, Canada, China, Europe, Hong Kong, India, Japan, Mexico, and South Korea. Patents in these families are expected to expire between the late 2030s and early 2040s if all fees are paid.

Trade secrets and other proprietary information

We rely in part on keeping our trade secrets and other proprietary information confidential. We protect proprietary information by executing confidentiality agreements and intellectual property assignment agreements with employees, and consulting or other contractual agreements with consultants, scientific advisors, sponsored researchers, contractors, and other collaborators, prior to commencement of our relationship with them. Confidentiality agreements limit use and disclosure of our confidential information during and after the relationship. Intellectual property assignment agreements require that all inventions resulting from work performed for us or relating to our business and conceived during the period of the relationship are our exclusive property. We take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary information by third parties.

Government Regulation

Regulatory authorities at federal, state, and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, quality control, import, export, safety, effectiveness, labeling, packaging, storage, distribution, record keeping, approval, advertising, promotion, marketing, post-approval monitoring, and post-approval reporting of products such as those we are developing. We, along with our third-party contractors, will be required to navigate the various preclinical, clinical, and commercial approval requirements of the governing regulatory authorities of the countries in which we wish to conduct studies or seek approval or licensure of our product candidates. Failure to comply with applicable regulations at any time during the product development process or approval process or after approval may result in delays to the conduct of a study, regulatory review, or commercialization authorization, or may subject an applicant to administrative or judicial actions. In the United States, such actions could include, among other actions, refusal to allow proceeding with clinical trials, imposition of a clinical hold, refusal to approve pending applications, withdrawal of an approval, license suspension or revocation, issuance of untitled or warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement of profits, or civil or criminal investigations or penalties.

Current Good Manufacturing Practices (cGMP)

To obtain marketing approval for a candidate product, we must finalize processes for manufacturing the product in commercial quantities in accordance with cGMP requirements. These processes must address design, monitoring, control, and maintenance of manufacturing processes and facilities, and the implemented processes must be capable of consistently producing quality batches of the product candidate. Our processes must, among other things, enable us to monitor several aspects of the interim and finished product, such as identity, purity, strength, quality, potency, and sterility as applicable. Additionally, stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life, and appropriate packaging must be selected and tested.

Preclinical and clinical development

For each product candidate, we perform numerous laboratory tests and preclinical animal studies, as well as human clinical trials. Preclinical laboratory tests, preclinical animal studies, and/or clinical trials may be ongoing concurrently for a product candidate in focused studies to assess various properties of a formulation and/or platform of the product candidate. Animal studies require pre-approval by an independent Institutional Animal Care and Use Committee ("IACUC"). Human studies in the United States require pre-approval by the FDA and an independent IRB, requested by way of an IDE or IND for investigational products such as our product candidates.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with cGCP, which includes the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. Furthermore, an independent IRB or ethics committee for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial and its informed consent form before the clinical trial begins at that site, and an IRB or ethics committee must monitor the study until completed. An IRB is charged with protecting the welfare and rights of trial participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. Regulatory authorities, the IRB, or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the subjects are being exposed to an unacceptable health risk, the trial is not being performed in accordance with the investigational plan or associated protocols, or that the trial is unlikely to meet its stated objectives. Some studies also include oversight by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board, which provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study and may halt the clinical trial if the data safety monitoring board determines that there is an unacceptable safety risk for subjects, no demonstration of efficacy, or other grounds. There are also requirements governing the reporting of ongoing preclinical studies, clinical trials, and clinical trial results to public registries. Sponsors of certain clinical trials of FDA-regulated products, including biologics, are required to register and disclose certain clinical trial information, which is publicly available at www.clinicaltrials.gov.

Human clinical trials are typically conducted in three phases that may be performed sequentially, in overlapping time frames, or in combination.

- Phase 1 includes the initial introduction of an investigational new drug into humans. Phase 1 studies may be conducted in patients or normal volunteer subjects. These studies are designed to determine the metabolism and pharmacologic actions of the drug in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness. The total number of subjects and patients included in Phase 1 studies varies with the drug, but is generally in the range of 20 to 80.

- Phase 2 includes the controlled clinical studies conducted to evaluate the effectiveness of the drug for a particular indication or indications in patients with the disease or condition under study and to determine the common short-term side effects and risks associated with the drug. Phase 2 studies are typically conducted in a relatively small number of patients, usually involving no more than several hundred subjects.

- Phase 3 studies are expanded controlled and uncontrolled trials. They are performed after preliminary evidence suggesting effectiveness of the drug has been obtained, and are intended to gather the additional information about effectiveness and safety that is needed to evaluate the overall benefit-risk relationship of the drug and to provide an adequate basis for physician labeling. Phase 3 studies usually include from several hundred to several thousand subjects.

For each of our product candidates, we may conduct Phase 1, Phase 2, and Phase 3 clinical trials of our formulation, the RaniPill platform, or the formulation in combination with the RaniPill platform.

In some cases, the FDA may require, or we may voluntarily pursue, additional clinical trials after a product is approved to gain more information about the product. These so-called Phase 4 studies may alternatively be made a condition to approval of the BLA or NDA. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication and further document clinical benefit in the case of drugs approved under certain regulatory programs, such as accelerated approval regulations. Failure to exhibit due diligence with regard to conducting Phase 4 clinical trials could result in withdrawal of approval for the associated product.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA, and written IND or IDE safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from other studies suggesting a significant risk to humans exposed to a particular or similar biologic, findings from animal or in vitro testing that suggest a significant risk for human subjects, and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure.

Investigational products

Prior to initiating a clinical trial of an investigational product such as for one of our product candidates, the FDA must grant authorization to proceed. A request for authorization is made by way of an IND or IDE application as applicable for the clinical trial.

An IND is a request for authorization from the FDA to administer an investigational new drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocols to be used in associated preclinical studies and clinical trials. The IND also includes results of animal and in vitro studies already performed to assess toxicology, pharmacokinetics, pharmacology and pharmacodynamic characteristics of the product. The IND further includes chemistry, manufacturing, and controls information, and human data or literature to support the use of the investigational product.

An IDE is a request for authorization from the FDA to allow an investigational device to be used in a clinical trial to collect safety and effectiveness data. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound.

An IND or IDE must become effective before human clinical trials may begin. The IND or IDE automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day period, raises safety concerns or questions about the proposed clinical trial. In such a case, the IND or IDE may be placed on clinical hold to resolve any outstanding concerns or questions before the clinical trial can begin.

The FDA's approval of an IND or IDE does not bind the FDA to accept the results of the trial as sufficient to prove the stated conclusions, even if the trial meets its intended success criteria.

All clinical trials must be conducted in accordance with FDA regulations that govern investigational product labeling, prohibit promotion, and specify an array of recordkeeping, reporting, and monitoring responsibilities of study sponsors and study investigators. Required records and reports are subject to inspection by the FDA. Clinical trials must further comply with FDA regulations that govern institutional review board approval, informed consent, and other human subject protections.

An amendment to the existing IND or IDE must be made for subsequent protocol changes and also for each successive clinical trial conducted during product development.

Although the FDA Quality System Regulation does not fully apply to investigational products, the requirement for controls on design and development does apply. The sponsor also must manufacture the investigational product in conformity with the quality controls described in the IND or IDE application and any conditions of IND or IDE approval that FDA may impose with respect to manufacturing.

BLA/NDA review process

Following completion of clinical trials, data are analyzed to assess whether the investigational product is safe and effective for the proposed indicated use or uses. The results of preclinical studies and clinical trials are then submitted to the FDA as part of an NDA or BLA, along with proposed labeling, chemistry, and manufacturing information to ensure product quality and other relevant data. In short, the NDA or BLA is a request for approval to market the product candidate for one or more specified indications and must contain proof of safety and efficacy for a drug or safety, purity, and potency for a biological product. The application may include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings. Data

may come from company-sponsored clinical trials intended to test the safety and efficacy of a product's use and/or from a number of alternative sources, including studies initiated by investigators or cooperative clinical groups. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational product to the satisfaction of FDA. FDA approval of an NDA or BLA must be obtained before a drug or biologic may be marketed in the United States.

Under the Prescription Drug User Fee Act ("PDUFA") and the Biologics Price Competition and Innovation Act of 2009 ("BPCI"), as amended, each NDA or BLA must be accompanied by a user fee. User fees may be adjusted on an annual basis. PDUFA also imposes an annual program fee for each marketed human drug or biologic. BsUFA imposes a user fee for a biosimilar development program at the time of the first meeting with the FDA or the initial IND submission, whichever occurs first. This fee must be paid annually.

The FDA reviews all submitted NDAs and BLAs before it accepts them for filing and may request additional information rather than accepting the NDA or BLA for filing. The FDA must make a decision on accepting an NDA or BLA for filing within 60 days of receipt. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA or BLA. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months from the filing date in which to complete its initial review and respond to the applicant, or six months if the submission is designated for priority review. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs or BLAs, and the review process may be extended by FDA requests for additional information or clarification.

Before approving an NDA or BLA, the FDA will conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with cGMP requirements. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The FDA also may audit data from clinical trials to ensure compliance with GCP requirements. Additionally, the FDA may refer applications for novel drug products or drug products which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation, and a recommendation as to whether the application should be approved and under what conditions, if any. The FDA is not bound by recommendations of an advisory committee, but it considers such recommendations when making decisions on approval. The FDA likely will reanalyze the clinical trial data, which could result in extensive discussions between the FDA and the applicant during the review process. After the FDA evaluates an NDA or BLA, it will issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes specific deficiencies in the NDA or BLA identified by the FDA. A Complete Response Letter may require additional clinical data, additional pivotal Phase 3 clinical trial(s), and/or other significant and time-consuming requirements related to clinical trials, preclinical studies, or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the NDA or BLA addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information are submitted, the FDA may decide that the NDA or BLA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data.

Pediatric Research Equity Act (PREA)

Under the Pediatric Research Equity Act ("PREA"), a BLA or NDA submission or supplement must contain data to assess the safety and efficacy of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDCA requires that a sponsor who is planning to submit a marketing application for a product that includes a new active ingredient, new indication, new dosage form, new dosing regimen, or new route of administration submit an initial Pediatric Study Plan, ("PSP"), within sixty days of an end-of-Phase 2 meeting or as may be agreed between the sponsor and FDA. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints, and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. The FDA and the sponsor must reach agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from nonclinical studies, early phase clinical trials, and/or other clinical development programs. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of data or full or partial waivers.

Expedited development and review programs

The FDA has a number of programs intended to expedite the development or review of products that meet certain criteria. For example, presently the FDA has a fast-track designation, a priority review path, an accelerated approval path, and a breakthrough therapy designation. Any product submitted to the FDA for approval may be eligible for one or more of such FDA programs intended

to expedite development and review. These expedited approvals do not change the standards for approval but may expedite the development or approval process. We may explore some of these opportunities for our product candidates as appropriate.

- New drugs may be eligible for fast-track designation if they are intended to treat a serious or life-threatening disease or condition and demonstrate the potential to address unmet medical needs for the disease or condition. Fast-track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a fast-track product has opportunities for more frequent interactions with the review team during product development, and the FDA may consider sections of the BLA or NDA for review on a rolling basis before the complete application is submitted.

- A product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or to provide a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of a BLA or NDA designated for priority review in an effort to facilitate the review. The FDA endeavors to review applications with priority review designations within six months of the filing date as compared to ten months for review of standard review designation under its current PDUFA review goals.

- Products intended to treat serious or life threatening diseases or conditions may be eligible for accelerated approval upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, has an effect on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a product receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires pre-approval of promotional materials as a condition for accelerated approval, which could adversely impact the timing of the commercial launch of the product.

- The Food and Drug Administration Safety and Innovation Act established a category referred to as “breakthrough therapies.” A sponsor may seek FDA designation of a product candidate as a “breakthrough therapy” if the product is intended, alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or may decide that the time period for FDA review or approval will not be shortened.

Post-approval requirements

Any products manufactured or distributed by us pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to cGMP, quality controls, record-keeping, reporting of adverse experiences, periodic reporting, product sampling and distribution, and advertising and promotion of the product. After approval, most changes to the approved product, including adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing user fee requirements, under which the FDA assesses an annual program fee for each approved product. The FDA regulations require that products be manufactured in specific approved facilities and in accordance with cGMP. Biologics manufacturers and their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP, which impose certain organizational, procedural and documentation requirements with respect to manufacturing and quality assurance activities. Changes to the manufacturing process are strictly regulated, and, depending on the significance of the change, may require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting requirements upon us and any third-party manufacturers that we may decide to use. We are responsible for the selection and monitoring of qualified contract manufacturers, laboratories, and packagers, and, in certain circumstances, qualified suppliers to them. These facilities and, where applicable, their suppliers are subject to inspections by the FDA at any time, and the discovery of violative conditions, including failure to conform to cGMP, could result in enforcement actions that interrupt the operation of any such facilities or the ability to distribute products manufactured, processed, or tested by them. Accordingly, we must continue to expend time, money, and effort on quality control for our own facilities and the facilities of others which contribute to the commercialization of our final product, to maintain compliance with cGMP and other aspects of regulatory compliance.

The FDA may withdraw approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information, imposition of post-market studies or

clinical trials to assess new safety risks, or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- Restrictions on the marketing or manufacturing of a product, complete withdrawal of the product from the market, or product recalls
- Fines, warning letters, or holds on post-approval clinical trials
- Refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of existing product approvals
- Product seizure or detention, or refusal of the FDA to permit the import or export of products
- Consent decrees, corporate integrity agreements, debarment, or exclusion from federal healthcare programs
- Mandated modification of promotional materials and labeling and the issuance of corrective information
- The issuance of safety alerts, Dear Healthcare Provider letters, press releases, and other communications containing warnings or other safety information about the product
- Injunctions or the imposition of civil or criminal penalties

The FDA closely regulates the marketing, labeling, advertising, and promotion of biologics. A company can make only those claims relating to safety, efficacy, purity, and potency that are approved by the FDA and in accordance with the provisions of the approved label. However, companies may share truthful and not misleading information that is otherwise consistent with a product's FDA approved labeling. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses. Failure to comply with these requirements can result in, among other things, one or more of adverse publicity, warning letters, corrective advertising, civil penalties, criminal penalties, government investigation, debarment, or exclusion from participation in federal health care programs. Physicians may prescribe legally available products for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA. Such off-label uses are common across medical specialties. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate the practice of medicine by physicians or their choice of treatments. The FDA does, however, regulate manufacturer's communications on the subject of off-label use of their products.

Orange Book; Purple Book

The FDA publishes the Orange Book for products following the NDA pathway and the Purple Book for products following the BLA pathway. Our product candidates will be listed in the Orange Book after approval for marketing or listed in the Purple Book after license for marketing, as applicable.

The Orange Book contains information about all FDA-approved drug products regulated by CDER and their exclusivities. The Orange Book also includes patent information. The applicant provides patent information to the FDA as part of its NDA, or after patent grant. Orange Book patent listing provides a 30 month stay of FDA approval of any generic submitted via an ANDA. An applicant submitting an ANDA must, for each patent listed against the approved drug in the Orange Book, either (i) state that the ANDA applicant is not seeking approval for a patented method of use, (ii) ask the FDA to delay approval until that patent is expired (a "Paragraph III" certification), or (iii) attest that the patent is invalid, unenforceable, or will not be infringed by the generic product (a "Paragraph IV" certification), which can trigger ANDA litigation over the associated patent.

The purple book contains information about all FDA-licensed biological products regulated by CBER, including licensed biosimilar and interchangeable products and their reference products, and FDA-licensed allergenic, cellular and gene therapy, hematologic, and vaccine products regulated by CBER. The Purple Book includes granted exclusivity information. The Purple Book also includes for each biological product a list of patents identified to a biosimilar applicant during biosimilar litigation under the BPCIA.

Exclusivities

Some of our product candidates may be eligible for exclusivities provided under various FDA programs. Exclusivity refers to certain delays and prohibitions on approval of competitor drugs available under an applicable statute that take effect upon

FDA's approval of a biologics or drug, or of certain supplements to the BLA or NDA. Exclusivities do not convey any advantage in or shorten the duration of the regulatory review and approval process.

The Pediatric exclusivity might apply to most or all of our product candidates. For an applicant to be able to take advantage of the Pediatric exclusivity, the FDA must make a written request for a pediatric study to be performed, although the applicant may request for the FDA to make the request for a pediatric study. After the study is performed, the applicant may request Pediatric exclusivity. If granted, 180 days of patent term are added to the patent term listed in the Orange Book.

With respect to other FDA exclusivity programs, in some cases the exclusivity programs will not apply to our product candidates due to our unique formulation or oral capsule technology, or it is unclear the extent to which they will apply, or they will not apply to most or all of the product candidates in our pipeline.

For exclusivity programs that apply to our product candidates, we will consider pursuing such exclusivities at the appropriate time. However, we do not expect any of the exclusivities to provide us significant competitive advantage. Exclusivities granted to our competitors could block approval and/or commercialization of one or more of our product candidates, possibly for several years.

Other healthcare laws and compliance requirements

Pharmaceutical companies are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business. Such laws include, without limitation: the federal Anti-Kickback Statute, the federal False Claims Act, the Sunshine Act, the federal Health Insurance Portability and Accountability Act of 1996, ("HIPAA"), and similar foreign, federal, and state fraud and abuse, transparency, and data privacy and security laws.

The federal Anti-Kickback Statute prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering or paying remuneration, to induce, or in return for, either the referral of an individual, or the purchase or recommendation of an item or service for which payment may be made under any federal healthcare program. The term remuneration has been interpreted broadly to include anything of value, including stock options. The federal Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers, and formulary managers, among others, on the other. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but they are drawn narrowly and require strict compliance in order to offer protection. Our activities, including our engagement of consultants, may be alleged to be intended to induce prescribing, purchasing, or recommending and so may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of an applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the federal Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all relevant facts and circumstances. Our practices may not in all cases meet all of the criteria for protection under a statutory exception or regulatory safe harbor. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. In addition, a claim including items or service resulting from a violation of the federal Anti-Kickback Statute, can result in a false or fraudulent claim for purposes of the federal False Claims Act.

Civil and criminal false claims laws, including the federal False Claims Act, which can be enforced through civil whistleblower or qui tam actions, and civil monetary penalty laws prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment to the federal government, including federal healthcare programs, that are false or fraudulent. For example, the federal False Claims Act prohibits any person or entity from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, using, or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government.

The U.S. federal Physician Payments Sunshine Act requires applicable manufacturers of prescription drugs, devices, biological products, or medical supplies subject to FDA approval or clearance for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, with specific exceptions, to annually report to the Centers for Medicare & Medicaid Services ("CMS") information related to certain payments or other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other healthcare professionals (such as physician assistants and nurse practitioners), and teaching hospitals, including ownership and investment interests held by physicians and their immediate family members.

HIPAA created additional federal criminal statutes that prohibit, among other things, executing a scheme to defraud any healthcare benefit program, including private third-party payors, and making false statements relating to healthcare matters. In addition, HIPAA, as amended the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their implementing regulations, impose certain requirements on HIPAA covered entities, which include certain healthcare providers,

healthcare clearinghouses, and health plans, and individuals and entities, known as business associates, that provide services for or on behalf of the covered entities that involve individually identifiable health information as well as their covered subcontractors, relating to the privacy, security, and transmission of individually identifiable health information.

We are also subject to additional similar U.S. state and foreign law equivalents of each of the above federal laws, which, in some cases, differ from each other in significant ways, and may not have the same effect, complicating compliance efforts.

If our operations are found to be in violation of any of such laws or any other governmental regulations that apply, we may be subject to penalties including, without limitation, significant civil, criminal, and administrative penalties, damages, fines, exclusion from participating in government-funded healthcare programs such as Medicare and Medicaid or similar programs in other countries or jurisdictions, government investigations, consent decrees, corporate integrity agreements, integrity oversight and reporting obligations to resolve allegations of non-compliance, disgorgement, imprisonment, contractual damages, reputational harm, diminished profits and market share, and the curtailment or restructuring of our operations.

Healthcare reform

The United States and some foreign jurisdictions are considering or have enacted a number of reform proposals to change the healthcare system. There is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality, or expanding access.

In the United States, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by federal and state legislative initiatives, including those designed to limit the pricing, coverage, and reimbursement of pharmaceutical and biopharmaceutical products, especially under government-funded health care programs, and increased governmental control of drug pricing. For example, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, the "ACA"), which was enacted in March 2010, contains a number of provisions of particular import to the pharmaceutical and biotechnology industries, including, but not limited to, those governing enrollment in federal healthcare programs, a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated, and annual fees based on pharmaceutical companies' share of sales to federal health care programs. There have been executive, judicial and Congressional challenges to certain aspects of the ACA. For example, on June 17, 2021, the United States Supreme Court dismissed a challenge on procedural grounds that argued the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the ACA will remain in effect in its current form. It is possible that the ACA will be subject to additional challenges in the future. It is unclear how such challenges and the healthcare reform measures of the Biden administration will impact the ACA, or the impact any changes to the ACA may have on our ability to commercialize products or the prices we are able to obtain.

Other legislative changes have been proposed and adopted since the ACA was enacted, including aggregate reductions of Medicare payments to providers of 2% per fiscal year and reduced payments to several types of Medicare providers. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, including the Infrastructure Investment and Jobs Act, will remain in effect through 2031 unless additional action is taken by Congress. COVID-19 relief legislation suspended the 2% Medicare sequester from May 1, 2020 through March 31, 2022. Under current legislation the actual reduction in Medicare payments will vary from 1% in 2022 to up to 3% in the final fiscal year of this sequester. Further, Congress is considering additional health reform measures.

Moreover, there has recently been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several Presidential executive orders, Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drug products. For example, in July 2021, the Biden administration released an executive order, "Promoting Competition in the American Economy," with multiple provisions aimed at prescription drugs. In response to Biden's executive order, on September 9, 2021, the U.S. Department of Health and Human Services ("HHS") released a Comprehensive Plan for Addressing High Drug Prices that outlines principles for drug pricing reform and sets out a variety of potential legislative policies that Congress could pursue as well as potential administrative actions HHS can take to advance these principles. No legislation or administrative actions have been finalized to implement these principles.

At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic.

Data privacy and security obligations

In the ordinary course of our business, we may collect, receive, process, generate, use, transfer, disclose, make accessible, protect, secure, dispose of, transmit, share and store (commonly known as processing) proprietary, confidential and sensitive information, including personal data, intellectual property, trade secret, and proprietary information owned or controlled by ourselves or third parties (collectively, sensitive information). We, and the third parties upon whom we rely, use information technology, software and services to process other sensitive information. Accordingly, we are, or may become, subject to numerous data privacy and security obligations, including federal, state, local, and foreign laws, regulations, guidance, and industry standards related to data privacy and security. Such obligations may include, without limitation, the Federal Trade Commission Act, the California Consumer Privacy Act of 2018 ("CCPA"), the European Union's General Data Protection Regulation 2016/679 ("EU GDPR") and the EU GDPR as it forms part of United Kingdom law by virtue of section 3 of the European Union (Withdrawal) Act 2018 ("UK GDPR"). In addition, several states within the United States have enacted or proposed data privacy and security laws. For example, Virginia passed the Consumer Data Protection Act, and Colorado passed the Colorado Privacy Act.

Obligations related to the processing of personal data worldwide is rapidly evolving. The number and scope of data privacy and security laws, regulations and other obligations is changing, subject to differing applications and interpretations, and may be inconsistent among jurisdictions, or in conflict with other data processing obligations. Efforts to ensure that our current and future business arrangements, including our relationship with our CROs or other vendors who process data on our behalf, comply with applicable data privacy and security obligations will involve substantial costs.

Foreign data privacy and security laws (including but not limited to the EU GDPR and UK GDPR) impose significant and complex compliance obligations on entities that are subject to those laws. For example, the EU GDPR, imposes several requirements relating to the consent of the individuals to whom personal data relates, the information provided to the individuals, the security and confidentiality of the personal data, data breach notification, and the use of third-party processors in connection with the processing of personal data. Additional requirements may include limiting personal data processing to only what is necessary for specified, explicit, and legitimate purposes; requiring a legal basis for personal data processing; requiring the appointment of a data protection officer in certain circumstances; requiring data protection impact assessments in certain circumstances; limiting the collection and retention of personal data; formalizing a heightened and codified standard of data subject consents; requiring the implementation and maintenance of technical and organizational safeguards for personal data; and mandating the appointment of representatives in the UK and/or the EU in certain circumstance. European data protection laws, such as the EU GDPR, also impose strict rules on the transfer of personal data out of the European Economic Area.

Various data privacy and security laws in the U.S. also impose compliance obligations. For example, the CCPA imposes obligations on covered businesses to provide specific disclosures related to a business's collection, use, and disclosure of personal data and to respond to certain requests from California residents related to their personal data (for example, requests to know of the business's personal data processing activities, to delete the individual's personal data, and to opt out of certain personal data disclosures). Also, the CCPA provides for civil penalties and a private right of action for data breaches which may include an award of statutory damages. Although the CCPA exempts certain data processed in the context of clinical trials, the CCPA, to the extent applicable to our business and operations, may increase our compliance costs and potential liability with respect to the personal data we maintain about California residents. In addition, the California Privacy Rights Act of 2020, or CPRA, effective January 1, 2023, will expand the CCPA. The CPRA will, among other things, give California residents the ability to limit the use of certain sensitive personal data, establish restrictions on personal data retention, expand the types of data breaches that are subject to the CCPA's private right of action, and establish a new California Privacy Protection Agency to implement and enforce the new law. U.S. federal and state consumer protection laws require us to publish statements that accurately and fairly describe how we handle personal data and choices individuals may have about the way we handle their personal data

Employees and Human Capital Resources

As of December 31, 2021, we had 114 full-time employees and no part-time employees. The majority of our employees are based at our facilities in San Jose and Milpitas, California, with a contingent of employees based outside of California. None of our employees are represented by a labor union or are a party to a collective bargaining agreement and we believe that we have good relations with our employees.

Attracting and Retaining Talent

Our human capital objectives include, as applicable, identifying, recruiting, retaining, incentivizing, and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract, retain, and motivate selected employees, consultants, and directors through the granting of stock-based compensation awards. In addition, we have added a People Ops team that has launched multiple initiatives focused on employee health and engagement, inter and intra team building and

collaboration, and individual career development planning. We have implemented a health engagement program that is completed by all new hires. We have also implemented a health engagement check-in for all existing employees. This is all in support and encouragement of a more collaborative environment at the company, which is vital to our efforts to recruit, retain and develop our employees.

Compensation and Benefits

The success of our business is fundamentally connected to the well-being of our employees. We provide market competitive compensation and benefits programs. In addition to salaries, these programs include potential annual discretionary bonuses, broad-based equity awards, a 401(k) plan, healthcare and insurance benefits, health savings and flexible spending accounts, paid time off, family leave and flexible work schedules, among others. These benefits provide our employees choices where possible so they can customize their benefits to meet their needs and the needs of their families.

COVID-19 and Employee Safety

In response to the COVID-19 pandemic and the related guidelines and orders issued by federal, state and local governments, we continue to restrict access to our offices in California, limit work gatherings, and suspend non-essential business travel. Many of our employees are conducting their work remotely, wholly or in part, to reduce the risk of a COVID-19 outbreak in our facilities. We have modified workspaces for employees that are essential to continue to work in the office. The safety, health, and well-being of our employees is paramount. As such, we will consider ongoing government regulations and local health conditions in establishing and implementing workplace practices.

Initial Public Offering

We became publicly traded in July 2021 through the IPO in which the Company sold 7,666,667 shares of its Class A common stock, including shares issued pursuant to the exercise in full of the underwriters' option, for cash consideration of $11.00 per share. We received approximately $73.6 million in net proceeds, after deducting underwriting discounts, offering costs and commissions. We used the proceeds from the IPO to purchase 7,666,667 newly issued economic nonvoting Class A units of Rani LLC. Details regarding the IPO can be found in "*Notes to the Consolidated Financial Statements*" below.

Capital Structure

We have three classes of common stock. Our Class A common stock has one vote per share, our Class B common stock has 10 votes per share, and our Class C common stock has no voting rights, except as otherwise required by law.

All shares of our Class B common stock are held by certain stockholders who held equity in Rani LLC before the IPO. The shares beneficially owned by the Continuing LLC Owners represent more than 80% of the total voting power of our outstanding capital stock as of March 15, 2022. The Continuing LLC Owners will be able to determine or significantly influence any action requiring the approval of our stockholders, including the election of our board of directors, the adoption of amendments to our certificate of incorporation and bylaws, and the approval of any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction.

Shares of our Class C common stock are not issued nor outstanding and we have no current plans to issue shares of Class C common stock. These shares will be available to be used in the future to further strategic initiatives, such as financings or acquisitions, or issue future equity awards to our service providers. Because the shares of Class C common stock have no voting rights (except as otherwise required by law), the issuance of such shares will not result in further dilution to the voting power held by the Continuing LLC Owners.

The multi-class structure of our common stock is intended to ensure that, for the foreseeable future, the Continuing LLC Owners continue to control or significantly influence our governance which we believe will permit us to continue to prioritize our long-term goals rather than short-term results, to enhance the likelihood of stability in the composition of our board of directors and its policies, and to discourage certain types of transactions that may involve an actual or threatened acquisition of us.

Corporate Information

Our principal offices are located at 2051 Ringwood Ave., San Jose, California 95131. Our telephone number is 408-457-3700. Our website address is www.ranitherapeutics.com. References to our website address do not constitute incorporation by reference of the information contained on the website, and the information contained on the website is not part of this document.

Copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements, and all amendments to these reports, filed with or furnished to the Securities and Exchange Commission ("SEC") pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as amended may be obtained from the SEC's on-line database, which is located at www.sec.gov. Our common stock is traded on the Nasdaq Stock Market ("Nasdaq") under the symbol "RANI."

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012. As such, we are eligible for exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and reduced disclosure obligations regarding executive compensation.

Item 1A. Risk Factors.

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the risks described below, including our consolidated financial statements and related notes, as well as the other information in this report, and in our other public filings, before investing in our Class A common stock. While we believe that the risks and uncertainties described below are the material risks currently facing us, additional risks that we do not yet know of or that we currently think are immaterial may also arise and materially affect our business. If any of the following risks materialize, our business, financial condition and results of operations could be adversely affected. In that case, the trading price of our Class A common stock could decline. You should consider all of the risk factors described when evaluating our business.

Risks Related to Our Limited Operating History, Financial Position and Capital Requirements

We have a very limited operating history, have incurred operating losses since our inception and expect to incur significant losses for the foreseeable future. We may never generate any commercial product revenue or become profitable or, if we achieve profitability, we may not be able to sustain it.

Biologics delivery is a highly speculative undertaking and involves a substantial degree of risk. We are an early clinical stage biopharmaceutical company with a very limited operating history upon which you can evaluate our business and prospects. We were formed in 2012, and to date, we have devoted the majority of our resources to research and development, manufacturing automation and scaleup, and establishing our intellectual property portfolio. RT-101 and RT-102 are in early clinical development, while our other product candidates remain in formulation and preclinical development. We have not yet demonstrated an ability to successfully complete pivotal clinical trials, obtain regulatory approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions made about our future success or viability may not be as accurate as they could be if we had a history of successfully developing and commercializing oral biologics products.

We have incurred significant operating losses since our formation in 2012. Our net loss for the year ended December 31, 2021 was approximately $53.1 million. As of December 31, 2021, we had an accumulated deficit of $8.3 million. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders, deficit and working capital. The majority of our losses have resulted from expenses incurred in connection with research and development, manufacturing automation and scaleup, and establishing our intellectual property portfolio. All of our product candidates will require substantial additional development time and resources before we would be able to apply for or receive regulatory approvals and begin generating revenue from product sales. We expect to continue incurring significant research, development, manufacturing and other expenses related to our ongoing business operations and product development, and as a result, we expect to continue incurring losses for the foreseeable future. We also expect these losses to increase as we continue our development of, and seek regulatory approvals for, our product candidates.

We do not anticipate generating revenue from sales of products for the foreseeable future, if ever, and our product candidates are in preclinical and early-stage clinical trials. If any of our product candidates fail in preclinical studies or clinical trials or do not gain regulatory approval, or even if approved, fail to achieve market acceptance, we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Failure to become and remain profitable may adversely affect the market price of our Class A common stock and our ability to raise capital and continue operations.

If one or more of our product candidates is approved for commercial sale and we retain commercial rights, we anticipate incurring significant costs associated with manufacturing and commercializing such approved product. Therefore, even if we are able to generate revenue from the sale of any approved product, we may never become profitable.

We are an early clinical stage biopharmaceutical company with no approved products and no historical commercial product revenue, which makes it difficult to assess our future prospects and financial results.

We are an early clinical stage biopharmaceutical company with a limited operating history upon which you can evaluate our business and prospects. Biologics development, especially as it relates to biologic-device combination products, is a highly speculative undertaking and involves a substantial degree of uncertainty. Our operations to date have been limited to developing our technology and undertaking preclinical studies and early clinical trials of our product candidates, which consist of investigational biologics delivered via the RaniPill capsule. We completed a Phase 1 clinical trial of RT-101 in Australia, and have completed preclinical studies of other product candidates. We plan to initiate Phase 1 clinical trials of certain of these product candidates in 2022 and in 2023. We initiated a Phase 1 clinical trial of RT-102 in Australia in March 2022. As an early clinical stage company, we have not yet demonstrated an ability to generate revenue or successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields such as biologics development and delivery. Consequently, the ability to accurately assess our future operating results or business prospects is significantly more limited than if we had a longer operating history or approved products on the market.

We expect that our financial condition and operating results will fluctuate significantly from period to period due to a variety of factors, many of which are beyond our control, including, but not limited to:

- the clinical outcomes from the continued development of our product candidates;
- occurrence of adverse events or serious adverse events in preclinical studies or clinical trials of our product candidates;
- potential side effects of our product candidates, whether caused by the biologic formulation or the RaniPill capsule, that could delay or prevent approval or cause an approved product to be taken off the market;
- our ability to obtain, as well as the timeliness of obtaining, additional funding to develop, and potentially manufacture and commercialize our product candidates;
- our ability to manufacture our product candidates to our specifications and in a timely manner to support our preclinical studies and clinical trials, and, if approved, commercialization;
- our ability to scale, optimize and expand automation of our manufacturing processes for our product candidates for the conduct of preclinical studies and clinical trials and, if approved, for successful commercialization;
- competition from existing products directed against the same biologic target or therapeutic indications of our product candidates as well as new products that may receive marketing approval;
- the timing of regulatory review and approval of our product candidates;
- market acceptance of our product candidates that receive regulatory approval, if any, including perception of the safety and efficacy of the oral delivery of biologics;
- our ability to expand our commercial reach by selectively entering into strategic partnerships on favorable terms or at all;
- our ability to establish an effective sales and marketing infrastructure directly or through collaborations with third parties;
- the ability of patients or healthcare providers to obtain coverage or sufficient reimbursement for our products;
- our ability to manufacture our product candidates in accordance with cGMP, for the conduct of preclinical studies and clinical trials and, if approved, for successful commercialization;
- our ability as well as the ability of any third-party collaborators, to obtain, maintain and protect intellectual property rights covering our product candidates and technologies, and our ability to develop, manufacture and commercialize our product candidates without infringing on the intellectual property rights of others;
- our ability to add infrastructure and adequately manage our future growth; and

- our ability to attract and retain key personnel with appropriate expertise and experience to manage our business effectively.

Accordingly, the likelihood of our success must be evaluated in light of many potential challenges and variables associated with a clinical stage biopharmaceutical company, many of which are outside of our control, and past results, including operating or financial results, should not be relied on as an indication of future results.

If we are unable to raise additional capital when needed on acceptable terms, we may be forced to delay, limit, reduce or terminate our product development programs, commercialization efforts or other operations.

Our operations have consumed substantial amounts of cash since our inception. We conducted a Phase 1 clinical trial of RT-101 in healthy volunteers, initiated a Phase 1 clinical trial of RT-102 in March 2022, conducted or are in the process of conducting preclinical studies of other product candidates, and are preparing to conduct Phase 1 clinical trials of certain of these product candidates in 2022 and 2023. In addition, we are developing the RaniPill HC and intend to evaluate the safety of the RaniPill capsule, independent of any biologic. Developing biologic product candidates, including conducting preclinical studies and clinical trials, and developing the RaniPill platform, is expensive. We will require substantial additional future capital in order to complete the development of the RaniPill platform, expand our manufacturing capabilities, and seek regulatory approval thereof, and to complete the clinical development of our intended biologics for use within the RaniPill capsule and, if we are successful, to commercialize any of our current product candidates. If the FDA or any comparable foreign regulatory authorities, such as the EMA, require that we perform studies or trials in addition to those that we currently anticipate with respect to the development of our product candidates or any of our future product candidates, or repeat studies or trials, our expenses would further increase beyond what we currently expect, and any delay resulting from such further or repeat studies or trials could also result in the need for additional financing.

Based on our current operating plan, we estimate that our existing cash and cash equivalents will be sufficient to fund our operating expenses and capital expenditure requirements through at least the next 12 months. This period could be shortened if there are any significant increases beyond our expectations in spending on development programs or more rapid progress of development programs than anticipated. Our existing capital resources, including the net proceeds from our IPO, will not be sufficient to enable us to initiate any pivotal clinical trials. Accordingly, we expect that we will need to raise substantial additional funds in the future in order to complete the development of the RaniPill platform, to complete the clinical development of our product candidates and seek regulatory approval thereof, to expand our manufacturing capabilities, to further develop the RaniPill HC device and to commercialize any of our product candidates.

Our funding requirements and the timing of our need for additional capital are subject to change based on a number of factors, including:

- the progress, costs, trial design, results of and timing of our preclinical studies and clinical trials;
- the progress, costs, and results of our research pipeline;
- the progress and costs of development of the RaniPill HC device and other improvements or advancements to our delivery technologies;
- the willingness of the FDA or other regulatory authorities to accept data from our clinical trials, as well as data from our completed and planned preclinical studies and clinical trials and other work, as the basis for review and approval of our product candidates;
- the outcome, costs, and timing of seeking and obtaining FDA, and any other regulatory approvals;
- the number and characteristics of product candidates that we pursue;
- our ability to manufacture sufficient quantities of the RaniPill capsule;
- our need to expand our research and development activities;
- the costs associated with manufacturing our product candidates, including establishing commercial supplies and sales, marketing, and distribution capabilities;
- the costs associated with securing and establishing commercial infrastructure;

- the costs of acquiring, licensing, or investing in businesses, product candidates, and technologies;
- our ability to maintain, expand, and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense, and enforcement of any patents or other intellectual property rights;
- our need and ability to retain key management and hire scientific, technical, business, and engineering personnel;
- the effect of competing drugs and product candidates and other market developments;
- the timing, receipt, and amount of sales from our potential products, if approved;
- our ability to establish strategic collaborations;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems;
- security breaches, data losses or other disruptions affecting our information systems;
- the economic and other terms, timing of and success of any collaboration, licensing, or other arrangements which we may enter in the future; and
- the effects of disruptions to and volatility in the credit and financial markets in the United States and worldwide from the COVID-19 pandemic, the conflict between Ukraine and Russia or other such disruptions.

Additional funding may not be available to us on acceptable terms, or at all. As a result of the COVID-19 pandemic and actions taken to slow its spread as well as the conflict between Ukraine and Russia, the global credit and financial markets have experienced volatility and disruptions. If we are unable to obtain additional funding from equity offerings or debt financings, including on a timely basis, we may be required to:

- seek collaborators for one or more of our product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available;
- relinquish or license on unfavorable terms our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves; or
- significantly curtail one or more of our research or development programs or cease operations altogether.

Conducting preclinical studies and clinical trials is a time consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all.

Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product candidates or technologies.

We may seek additional funding through a combination of equity offerings, debt financings, collaborations and/or licensing arrangements. Additional funding may not be available to us on acceptable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, current stockholders' interest will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of existing stockholders. The incurrence of indebtedness and/or the issuance of certain equity securities could result in fixed payment obligations and could also result in certain additional restrictive covenants, such as limitations on our ability to incur debt and/or issue additional equity, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our Class A common stock to decline. In the event that we enter into collaborations and/or licensing arrangements in order to raise capital,

we may be required to accept unfavorable terms, including relinquishing or licensing to a third party on unfavorable terms our rights to the RaniPill capsule, the RaniPill HC or our product candidates that we otherwise would seek to develop or commercialize ourselves or potentially reserve for future potential arrangements when we might be able to achieve more favorable terms.

Risks Related to the Development and Regulatory Approval of Our Product Candidates

We are early in our development efforts and have only two product candidates in early clinical development. All of our other product candidates are still in preclinical development. If we are unable to advance our product candidates through clinical development, obtain regulatory approval and ultimately commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.

We are in the early stages of our development efforts and have only two product candidates, RT-101 and RT-102, in early clinical development. We intend to evaluate the safety of the RaniPill capsule, independent of any biologic, through a clinical trial conducted under an IDE. Any delays or setback in the clinical testing of the RaniPill capsule independent of any biologic, could delay or prevent the clinical testing of any of our current or future product candidates. We completed a Phase 1 clinical trial of RT-101 in Australia to evaluate safety as a primary endpoint and bioavailability as a secondary endpoint. In March 2022, we initiated a Phase 1 clinical trial of RT-102 in Australia to compare pharmacokinetics of PTH administered via RaniPill capsule to PTH administered via subcutaneous injection. Our other product candidates are still in the formulation and preclinical stages. We intend to initiate Phase 1 clinical trials for certain of these product candidates in 2022 and in 2023. We will need to progress these product candidates through IND-enabling studies and submit INDs to the FDA or equivalent regulatory filings to foreign regulatory authorities prior to initiating their clinical development. None of our product candidates have advanced into a pivotal study.

Our ability to generate product revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on several factors, including the following:

- successful enrollment in clinical trials and completion of preclinical studies and clinical trials with favorable results;
- acceptance of INDs by the FDA or similar regulatory filings by comparable foreign regulatory authorities for the conduct of clinical trials of our product candidates and our proposed design of future clinical trials;
- demonstrating safety and efficacy to the satisfaction of applicable regulatory authorities;
- receipt of marketing approvals from applicable regulatory authorities, including BLAs or NDAs, from the FDA, and maintaining such approvals;
- establishing clinical and commercial manufacturing capabilities;
- expanding automation of our manufacturing machinery and procedures;
- establishing and maintaining multiple suppliers for our critical manufacturing materials;
- establishing sales, marketing and distribution capabilities and launching commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- establishing and maintaining patent and trade secret protection or regulatory exclusivity for our product candidates;
- maintaining an acceptable safety profile and shelf life of our products following approval;
- the class of drugs that are included in our product candidates continuing to represent the standard-of-care for the respective disease target and continuing to have a long-term favorable safety profile; and
- maintaining and growing an organization of people who can develop our products and technology.

The success of our business, including our ability to finance our company and generate any revenue in the future, will depend on the successful development, regulatory approval and commercialization of our product candidates, which may never occur. We have not yet succeeded and may not succeed in demonstrating efficacy and safety for any product candidates in clinical trials or in obtaining marketing approval thereafter. We may not be able to successfully deliver the biologic payload to the intestinal wall with great enough certainty to achieve adequate efficacy or safety for any of our product candidates or to the satisfaction of the FDA or

other regulatory bodies. Given our early stage of development, it may be several years, if at all, before we have demonstrated the safety and efficacy of a treatment sufficient to warrant approval for commercialization. If we are unable to develop, or obtain regulatory approval for, or, if approved, successfully commercialize our product candidates, we may not be able to generate sufficient revenue to continue our business.

The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for our product candidates, our business will be substantially harmed.

Our business and future profitability is substantially dependent on our ability to successfully develop, obtain regulatory approval for and then successfully commercialize the RaniPill capsule with oral versions of multiple biologics. Our approach presents a novel method of delivering biologics directly into the intestinal wall, and we are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or any comparable foreign regulatory authorities. The pathway for obtaining regulatory approval for our approach has not been definitively established, and we may never receive such regulatory approval for any of our product candidates. The time required to obtain approval by the FDA and comparable foreign authorities is unpredictable, typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the substantial discretion of regulatory authorities. Approval policies, regulations and the types and amount of clinical and manufacturing data necessary to gain approval may change during the course of clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates or any product candidates we have in development or may seek to develop in the future will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may fail to achieve the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data submitted in support of regulatory approval;
- the data collected from preclinical studies and clinical trials of our product candidates may not be sufficient to support the submission of a BLA or other regulatory submissions necessary to obtain regulatory approval in the United States or elsewhere;
- we may not meet the cGMP and other applicable requirements for manufacturing processes, procedures, documentation and facilities necessary for approval by the FDA or comparable foreign regulatory authorities; and
- changes to the approval policies or regulations of the FDA or comparable foreign regulatory authorities with respect to our product candidates may result in our clinical data becoming insufficient for approval.

The lengthy regulatory approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market the RaniPill capsule with our core programs and any other biologics, which would harm our business, results of operations and prospects significantly.

In addition, even if we were to obtain regulatory approval, regulatory authorities may approve our product candidates for fewer or more limited indications than what we requested approval for, may include safety warnings or other restrictions that may negatively impact the commercial viability of our product candidates, including the potential for a favorable price or reimbursement at a level that we would otherwise intend to charge for our products. Likewise, regulatory authorities may grant approval contingent on the performance of costly post-marketing clinical trials, which could significantly reduce the potential for commercial success or viability of our product candidates. Any of the foregoing possibilities could materially harm the prospects for our product candidates and business and operations.

We have not previously submitted a BLA, or a marketing authorization application, ("MAA"), or any corresponding drug approval filing to the FDA or any comparable foreign regulatory authorities for any product candidate. Further, our product candidates may not receive regulatory approval even if we complete such filing. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations.

Clinical development is a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results. Clinical failure can occur at any stage of clinical development.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical development process. The results of preclinical studies and early clinical trials of our product candidates and studies and trials of other products may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical trials. For example, the results generated to date in preclinical studies and the Phase 1 clinical trial of RT-101 do not ensure that future Phase 2 or later clinical trials of RT-101 will have similar results or be successful. In our Phase 1 clinical trial of RT-101, we tested the RaniPill capsule in a limited number of healthy volunteers. While we have not observed any serious adverse events as a result of these preclinical studies or clinical trial, we have not widely tested the RaniPill capsule in humans and cannot be certain how the RaniPill capsule will perform when more widely tested in humans in any later clinical trials. In addition to our ongoing and planned preclinical studies and clinical trials, we expect to have to complete at least two large scale, or adequate, well-controlled trials to demonstrate substantial evidence of efficacy and safety for each product candidate we intend to commercialize. Further, given the patient populations for which we are developing biologics, we expect to have to evaluate long-term exposure to establish the safety of our biologics in a chronic dose setting.

We are currently optimizing the formulation for RT-101, to enable once daily dosing. If we are able to optimize the formulation, we plan to test and verify the formulation in appropriate animal models. Once the formulation is validated in preclinical studies, we plan to submit an IND and initiate clinical trials for the development of RT-101. The scale-up development related to this formulation could delay commencement of such clinical trials, and the revised formulation could cause RT-101 to perform differently than the original formulation and affect the results of our planned clinical trials. We are currently conducting a Phase 1 clinical trial of RT-102. The outcome of that study is uncertain.

Clinical trial failures may result from a multitude of factors including, but not limited to, flaws in trial design, dose and formulation selection, placebo effect, patient enrollment criteria and failure to demonstrate favorable safety and/or efficacy traits of the product candidate. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Based upon negative or inconclusive results, we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials.

We may experience delays in ongoing clinical trials, and we do not know whether planned clinical trials will begin on time, need to be redesigned, enroll patients on time or be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays related to:

- obtaining regulatory approvals to commence a clinical trial;
- fraud or negligence on the part of consultants or contractors;
- obtaining Institutional Review Board or Ethics Committee approval at each site;
- recruiting suitable patients to participate in a clinical trial;
- having patients complete a clinical trial or return for post-treatment follow-up;
- clinical sites deviating from the clinical trial's protocol or dropping out of a clinical trial;
- the impacts of the COVID-19 pandemic on our ongoing and planned preclinical studies and clinical trials;
- adding new clinical trial sites; or
- manufacturing sufficient quantities of product candidate for use in our preclinical studies and clinical trials, including product candidates manufactured in accordance with our specifications.

In addition, disruptions caused by the COVID-19 pandemic may increase the likelihood that we encounter such difficulties or delays in initiating, enrolling, conducting, or completing our ongoing and planned clinical trials. We could encounter delays if a clinical trial is modified, suspended or terminated by us, by the IRBs or ECs of the institutions in which such clinical trials are being conducted, by a Data Safety Monitoring Board for such trial or by the FDA or comparable foreign regulatory authorities. Such authorities may impose a modification, suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical trial protocols, inspection of the clinical trial operations or clinical trial site by the FDA or comparable foreign regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed and our ability to generate product revenue from any of these product candidates will be delayed. Any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenue. Any of these occurrences may harm our business, financial condition and prospects significantly. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

In addition, data obtained from trials and studies are susceptible to varying interpretations, and regulators may not interpret our data as favorably as we do, which may delay, limit or prevent regulatory approval. Further, if patients drop out of our clinical trials, miss scheduled doses or follow-up visits, or otherwise fail to follow clinical trial protocols, whether as a result of the COVID-19 pandemic, actions taken to slow the spread of COVID-19 or otherwise, the integrity of data from our clinical trials may be compromised or not accepted by the FDA or comparable foreign regulatory authorities, which would represent a significant setback for the applicable program.

For the foregoing reasons, our ongoing and planned preclinical studies and clinical trials may not be successful. Any safety concerns observed in any one of our clinical trials in our targeted or contemplated biologic indications could limit the prospects for regulatory approval of our product candidates in those and other indications, which could have an adverse effect on our business, financial condition and results of operations.

Any difficulties or delays in the commencement or completion, or termination or suspension, of our current or planned clinical trials could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. We are in the early stages of our development efforts and have two product candidates, RT-101 and RT-102, in early clinical development. We completed a Phase 1 clinical trial of RT-101 to evaluate safety as a primary endpoint and bioavailability as a secondary endpoint. In March 2022, we initiated a Phase 1 clinical trial of RT-102 in Australia to compare pharmacokinetics of PTH administered via RaniPill capsule to PTH administered via subcutaneous injection. Our other product candidates are still in the formulation or preclinical stages. We intend to initiate Phase 1 clinical trials for certain of these product candidates in 2022 and in 2023. However, we have not, to date, submitted an IND for any of our product candidates. We will be required to submit applicable equivalent regulatory filings to foreign regulatory authorities to the extent we initiate clinical trials outside of the United States.

We do not know whether our planned clinical trials will begin on time or be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- the FDA or comparable foreign regulatory authorities disagreeing with the design or implementation of our clinical trials;
- obtaining regulatory authorizations to commence a trial, or reaching a consensus with regulatory authorities on trial design;
- any failure or delay in reaching an agreement with CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- obtaining approval from one or more IRBs;
- IRBs refusing to approve, suspending or terminating the trial at an investigational site, precluding enrollment of additional volunteers or withdrawing their approval of the trial;

- changes to clinical trial protocol;
- clinical sites deviating from trial protocol or dropping out of a trial;
- manufacturing sufficient quantities of a product candidate or obtaining sufficient quantities of other therapies or APIs for use in clinical trials;
- volunteers failing to enroll or remain in our trial at the rate we expect, or failing to return for post-treatment follow-up;
- volunteers choosing an alternative treatment for the indication for which we are developing our product candidates, or participating in competing clinical trials;
- lack of adequate funding to continue the clinical trial;
- volunteers experiencing severe or unexpected drug-related adverse effects;
- occurrence of serious adverse events in clinical trials of the same class of agents conducted by other companies;
- selection of clinical endpoints that require prolonged periods of clinical observation or analysis of the resulting data;
- a facility manufacturing our product candidates or any of their components being ordered by the FDA or comparable foreign regulatory authorities to temporarily or permanently shut down due to violations of cGMP regulations or other applicable requirements, or infections or cross-contaminations of product candidates in the manufacturing process;
- any changes to our manufacturing process or product formulation that may be necessary or desired;
- shortages in, or delays in obtaining, raw materials for manufacturing our product candidates or adequately scaling our manufacturing processes and procedures to deliver sufficient quantities for use in our clinical trials;
- third-party clinical investigators losing the licenses or permits necessary to perform our clinical trials, not performing our clinical trials on our anticipated schedule or consistent with the clinical protocol or relevant regulatory requirements;
- third-party contractors not performing data collection or analysis in a timely or accurate manner; or
- third-party contractors becoming debarred or suspended or otherwise penalized by the FDA or other government or comparable foreign regulatory authorities for violations of regulatory requirements, in which case we may need to find a substitute contractor, and we may not be able to use some or all of the data produced by such contractors in support of our marketing applications.

We could also encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by a Data Safety Monitoring Board for such trial or by the FDA or comparable foreign regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or comparable foreign regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial. In addition, changes in regulatory requirements and policies may occur, and we may need to amend clinical trial protocols to comply with these changes. Amendments may require us to resubmit our clinical protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial.

Further, conducting clinical trials in foreign countries, as we may do for our product candidates, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocol as a result of differences in healthcare services or cultural customs, managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks relevant to such foreign countries.

Moreover, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of

these relationships to the FDA or comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authorities may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of the study. The FDA or comparable foreign regulatory authorities may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA or comparable foreign regulatory authorities, as the case may be, and may ultimately lead to the denial of marketing approval of one or more of our product candidates.

In addition, we work with third parties to manufacture, develop, and supply the biologic payloads for inclusion in the RaniPill capsule, a development process that is lengthy and expensive. Some of the active ingredients we are utilizing in our development and used by other sponsors to make biosimilars in the United States, and others are not. We and our third party manufacturers may discover, even late in the process, that a particular biologic payload does not demonstrate the necessary characteristics or is unacceptable to the FDA or other regulatory authorities, and we may be forced to abandon such manufacturing and development efforts for such compound and pursue alternative sourcing, or conduct additional, more involved development work to be able to use such compound, which could have an adverse effect on our operations.

If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. Moreover, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues.

In addition, many of the factors that cause, or lead to, termination or suspension of, or a delay in the commencement or completion of, clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. We may make formulation or manufacturing changes to our product candidates, in which case we may need to conduct additional preclinical studies or clinical trials to bridge our modified product candidates to earlier versions. Any delays to our clinical trials that occur as a result could shorten any period during which we may have the exclusive right to commercialize our product candidates and our competitors may be able to bring products to market before we do, and the commercial viability of our product candidates could be significantly reduced. Any of these occurrences may harm our business, financial condition and prospects significantly.

Enrollment and retention of patients in clinical trials is an expensive and time-consuming process and could be made more difficult or rendered impossible by multiple factors outside our control.

We may encounter delays in enrolling, or be unable to enroll or maintain, a sufficient number of patients to complete any of our clinical trials. Patient enrollment and retention in clinical trials is a significant factor in the timing of clinical trials and depends on many factors, including the size and nature of the patient population, the nature of the trial protocol, the existing body of safety and efficacy data with respect to the study drug, the number and nature of competing treatments and ongoing clinical trials of competing drugs for the same indication, the proximity of patients to clinical trial sites and the eligibility criteria for the clinical trial.

For most of our product candidates, we are working to deliver known biologic products via the RaniPill platform, and accordingly, patients who are currently prescribed or eligible to be prescribed the approved injectable versions of these biologics may be unable or unwilling to participate in our clinical trials to test an unapproved delivery system of these medications. Our inability to enroll a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

Furthermore, any negative results we may report in clinical trials of our product candidates may make it difficult or impossible to recruit and retain patients in other clinical trials of that same candidate. Also, negative results in clinical trials by other companies regarding the biologics we are using or biosimilars or analogs thereof can additionally make it difficult or impossible to recruit and retain patients in our clinical trials. Delays or failures in planned patient enrollment or retention may result in increased costs, program delays or both, which could have a harmful effect on our ability to develop our product candidates, or could render further development impossible.

Our preclinical studies and clinical trials have been affected and may in the future be affected by the COVID-19 pandemic, such as by a reduction in staffing at a CRO, a pause in clinical trial patient enrollment to focus on, and direct resources to, COVID-19, or patients choosing not to enroll or continue participating in a clinical trial as a result of the pandemic. For example, we are developing RT-106 and RT-104 as an oral version of basal insulin and GLP-1 mimetic, respectively, for the treatment of Type 2 diabetes. According to the Centers for Disease Control and Prevention, people who have Type 2 diabetes are at higher risk of getting severely ill from COVID-19. As a result, potential patients in contemplated clinical trials may choose to not enroll, not participate in follow-up clinical visits or drop out of the trial as a precaution against contracting COVID-19, even if vaccinated. Further, some patients may not be able or willing to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services.

Our product candidates or similar investigational or approved drugs may cause undesirable side effects or have other properties impacting safety that could delay or prevent the regulatory approval of, limit the commercial profile of an approved label for, or result in limiting the commercial opportunity for our product candidates if approved.

Undesirable side effects that may be caused by our product candidates or caused by similar investigational or approved drugs within the same class by other companies, could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign authorities. Results of our clinical trials could reveal a high and unacceptable severity and prevalence of side effects or adverse events related to our product candidates. In such an event, our clinical trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development of our product candidates for any or all targeted biologic indications.

For example, in our Phase 1 clinical trial of RT-101, the RaniPill capsule was well tolerated by all subjects, and no subjects had difficulty swallowing the pill. Capsule remnants were passed by all trial subjects and no serious adverse events were observed. However, we have generated limited clinical data with the RaniPill capsule to date, and further analysis may reveal adverse events inconsistent with the safety profile observed to date.

Drug-related side effects could negatively affect patient recruitment or the ability of enrolled patients to complete the trial and even if our clinical trials are completed and our product candidate is approved, drug-related side effects could restrict the label or result in potential product liability claims. Any of these occurrences could significantly harm our business, financial condition and prospects.

Moreover, since our product candidates are being developed for indications for which subcutaneous and IV injectable pharmaceuticals have been approved, we expect that our clinical trials would need to show a risk/benefit profile that is competitive with those existing products and product candidates in order to obtain regulatory approval or, if approved, a product label that is favorable for commercialization.

In addition, similar investigational or approved drugs within the same class as our product candidates may encounter serious adverse events. In the event these products encounter serious adverse events, the FDA may remove the class of drugs from the market, impose a class wide REMS, or require other class wide regulatory requirements. We may face increased regulatory scrutiny and ultimately may have to abandon our product candidate of the same class, which would have an adverse effect on our business, financial condition and operations.

Additionally, if one or more of our product candidates receives marketing approval and we or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product;
- regulatory authorities may require additional warnings on the label;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate which could significantly harm our business and prospects. Also, any undesirable side effects caused by or safety concerns related to our delivery device apart from a drug or biologic could delay, limit or prevent us from developing and commercializing any product candidates.

As an organization, we have completed only one Phase 1 clinical trial, have not submitted an IND to the FDA and we have never conducted later-stage clinical trials or submitted a BLA, and may be unable to do so for any of our product candidates.

We are early in our development efforts for our product candidates, and we will need to successfully complete later-stage and pivotal clinical trials in order to obtain FDA or comparable foreign regulatory approval to market our current or any future product candidates. Carrying out later-stage clinical trials and the submission of a successful BLA is a complicated process. As an organization, we completed a Phase 1 clinical trial for RT-101 conducted in Australia, initiated a Phase 1 clinical trial for RT-102 in Australia in March 2022, and have not yet conducted any clinical trials for our other product candidates. We have not previously

conducted any later stage or pivotal clinical trials, have limited experience as a company in preparing, submitting and prosecuting regulatory filings and have not previously submitted a BLA or other comparable foreign regulatory submission for any product candidate. We also plan to conduct a number of clinical trials for multiple product candidates in parallel over the next several years. For example, we plan to initiate two clinical trials in 2022, including the ongoing clinical trial involving RT-102. This may be a difficult process to manage with our limited resources and may divert the attention of management. In addition, we have had limited interactions with the FDA, through the pre-submission process with the Center for Devices and Radiological Health, and we have never filed an IDE or IND. We cannot be certain how many clinical trials of our product candidates will be required or how such trials will have to be designed. For example, we anticipate relying on data developed on the RaniPill platform to enable shortened or more efficient development for our subsequent product candidates, but this may not be the case and the FDA or other regulatory authorities may require us to perform a full suite of studies for each of our product candidates. Consequently, we may be unable to successfully and efficiently commence, execute and complete necessary clinical trials in a way that leads to regulatory submission and approval of any of our product candidates. We may require more time and incur greater costs than our competitors and may not succeed in obtaining regulatory approvals of product candidates that we develop. Failure to commence or complete, or delays in, our planned clinical trials, could prevent us from or delay us in submitting BLAs for and commercializing our product candidates.

Our product candidates are subject to extensive regulation and compliance, which is costly and time consuming, and such regulation may cause unanticipated delays or prevent the receipt of the required approvals to commercialize our product candidates.

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of our product candidates are subject to extensive regulation by the FDA in the United States and by comparable foreign regulatory authorities in foreign markets. In the United States, we are not permitted to market our product candidates until we receive regulatory approval from the FDA. The process of obtaining regulatory approval is expensive, often takes many years following the commencement of clinical trials and can vary substantially based upon the type, complexity and novelty of the product candidates involved, as well as the target indications and patient population. The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels and the ability to hire and retain key personnel and accept the payment of user fees. In addition, approval policies or regulations may change, and the FDA has substantial discretion in the approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. Despite the time and expense invested in clinical development of product candidates, regulatory approval is never guaranteed.

Prior to obtaining approval to commercialize a product candidate in the United States or abroad, we must demonstrate with substantial evidence from adequate and well-controlled clinical trials, and to the satisfaction of the FDA or comparable foreign regulatory authorities, that such product candidates are safe and effective for their intended uses. Results from nonclinical studies and clinical trials can be interpreted in different ways. Even if we believe the nonclinical or clinical data for our product candidates are promising, such data may not be sufficient to support approval by the FDA and comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authorities, as the case may be, may also require us to conduct additional preclinical studies or clinical trials for our product candidates either prior to or post-approval, or may object to elements of our clinical development program.

The FDA or comparable foreign regulatory authorities can delay, limit or deny approval of a product candidate for many reasons, including:

- such authorities may disagree with the design or implementation of our clinical trials;
- negative or ambiguous results from our clinical trials or results may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- serious and unexpected drug-related side effects may be experienced by participants in our clinical trials or by individuals using drugs similar to our product candidates;
- the population studied in the clinical trial may not be sufficiently broad or representative to assure safety in the full population for which we seek approval;
- such authorities may not accept clinical data from trials which are conducted at clinical facilities or in countries where the standard of care is potentially different from that of the United States;
- we may be unable to demonstrate that a product candidate’s clinical and other benefits outweigh its safety risks;
- such authorities may disagree with our interpretation of data from preclinical studies or clinical trials;

- such authorities may not agree that the data collected from clinical trials of our product candidates are acceptable or sufficient to support the submission of a BLA or other submission or to obtain regulatory approval in the United States or elsewhere, and such authorities may impose requirements for additional preclinical studies or clinical trials;

- such authorities may disagree regarding the formulation, labeling and/or the specifications of our product candidates;

- approval may be granted only for indications that are significantly more limited than what we apply for and/or with other significant restrictions on distribution and use;

- such authorities may find deficiencies in the manufacturing processes or facilities of our third-party manufacturers with which we contract for clinical and commercial supplies;

- regulations of such authorities may significantly change in a manner rendering our or any of our potential future collaborators' clinical data insufficient for approval; or

- such authorities may not accept a submission due to, among other reasons, the content or formatting of the submission.

With respect to foreign markets, approval procedures vary among countries and, in addition to the foregoing risks, may involve additional product testing, administrative review periods and agreements with pricing authorities. In addition, events raising questions about the safety of certain marketed biologics may result in increased cautiousness by the FDA and comparable foreign regulatory authorities in reviewing new biologics based on safety, efficacy or other regulatory considerations and may result in significant delays in obtaining regulatory approvals. Any delay in obtaining, or inability to obtain, applicable regulatory approvals would prevent us from commercializing our product candidates.

Because we have multiple product candidates in our clinical pipeline and are considering a variety of target indications, we may expend our limited resources to pursue a particular product candidate and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on specific product candidates, indications and development programs. We also plan to conduct several clinical trials for our product candidates in parallel over the next several years, including initiating two clinical trials across our product candidates in 2022, including the ongoing clinical trial involving RT-102, which may make our decision as to which product candidates to focus on more difficult. As a result, we may forgo or delay pursuit of opportunities with other product candidates or other indications that could have had greater commercial potential or likelihood of success. In addition, we are focused on developing the RaniPill capsule in addition to the biologic formulations for use in the RaniPill capsule. While we intend to focus on well-characterized molecules with attractive commercial characteristics, focusing both on biologics delivery and formulation will require substantial resource and attention. In addition, we are developing a new device with a payload capacity up to 20 mg, RaniPill HC, and in the future we may seek to develop other variations of the RaniPill capsule. In such cases, we need to redesign and conduct additional preclinical and clinical studies of any new design of the RaniPill capsule. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through future collaborations, licenses and other similar arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

Additionally, we may pursue additional in-licenses or acquisitions of development-stage assets or programs, which entails additional risk to us. Identifying, selecting and acquiring promising product candidates requires substantial technical, financial and human resources expertise. Efforts to do so may not result in the actual acquisition or license of a particular product candidate, potentially resulting in a diversion of our management's time and the expenditure of our resources with no resulting benefit. For example, if we are unable to identify programs that ultimately result in approved products, we may spend material amounts of our capital and other resources evaluating, acquiring and developing products that ultimately do not provide a return on our investment.

A breakthrough therapy designation or Fast Track designation by the FDA for a drug may not lead to a faster development or regulatory review or approval process, and it would not increase the likelihood that the drug will receive marketing approval.

In the future, we may seek a breakthrough therapy designation for one or more of our product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing

therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA are also eligible for priority review if supported by clinical data at the time of the submission of the biologics license application.

Designation as a breakthrough therapy is at the discretion of the FDA. Accordingly, even if we believe that one of our product candidates meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of a breakthrough therapy designation for a drug may not result in a faster development process, review, or approval compared to drugs considered for approval under conventional FDA procedures and it would not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualify as breakthrough therapies, the FDA may later decide that the product candidates no longer meets the conditions for qualification, or it may decide that the time period for FDA review or approval will not be shortened.

We may seek Fast Track designation for some of our product candidates. If a therapy is intended for the treatment of a serious or life-threatening condition and the therapy demonstrates the potential to address significant unmet medical needs for this condition, the drug sponsor may apply for Fast Track designation. The FDA has broad discretion whether or not to grant this designation, and even if we believe a particular product candidates is eligible for this designation, the FDA may not decide to grant it. Even if we do receive Fast Track designation, we may not experience a faster development process, review, or approval compared to conventional FDA procedures. If our clinical development program does not continue to meet the criteria for Fast Track designation, or if our clinical trials are delayed, suspended, or terminated, or put on clinical hold due to unexpected adverse events or issues with clinical supply, we will not receive the benefits associated with the Fast Track program. Furthermore, Fast Track designation and priority review do not change the standards for approval. The FDA may withdraw Fast Track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast Track designation alone does not guarantee qualification for the FDA's priority review procedures.

Interim, topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose interim, topline or preliminary data from our clinical trials, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the topline results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution until the final data are available. From time to time, we may also disclose interim data from our clinical studies. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects. Further, others, including regulatory authorities, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and our company in general. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is the material or otherwise appropriate information to include in our disclosure, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular drug, drug candidate or our business. If the topline data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be harmed, which could harm our business, operating results, prospects or financial condition.

Product candidates comprising a biologic within the RaniPill capsule employ novel technologies that have not yet been approved by the FDA or comparable foreign regulatory authorities, and we anticipate that our applications will have to be submitted as original, standalone BLAs. These regulatory authorities have limited experience in evaluating our technologies and product candidates. Our novel technologies also make it difficult to predict the time and cost of product candidate development.

We and our collaboration partners are developing product candidates based on novel technologies, and we intend to work closely with our collaboration partners to understand and deliver the requisite demonstration of safety and efficacy that the FDA and comparable foreign regulatory authorities may seek for the approval of our product candidates, which comprise a biologic within the

RaniPill capsule. It is possible that the regulatory approval process may take significant time and resources and require deliverables from independent third parties not under our control. We anticipate that our marketing applications to the FDA will have to be submitted as 351(a) BLAs. For some of our product candidates, the regulatory approval path and requirements may not be clear or may change, which could add significant delay and expense. For example, although we have engaged in pre-submission meetings with FDA's CDRH regarding our planned evaluation of the RaniPill platform under an IDE, we have not yet engaged in formal interactions with CDER or CBER to obtain FDA feedback on the clinical trials that will be necessary to support BLA submissions for any of our product candidates. Delays or failure to obtain regulatory approval of any of the products that we or our collaboration partners develop using our novel technologies would adversely affect our business.

In addition, we are in the early stages of developing our platform and any development problems we experience in the future may cause significant delays or unanticipated costs, and such development problems may not be able to be overcome. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process or transferring that process to commercial partners, which may prevent us from completing our clinical trials or commercializing our products on a timely or profitable basis, if at all. In addition, our expectations with regard to our scalability and costs of manufacturing may vary significantly as we develop our product candidates and understand these critical factors.

We have limited clinical data on our product candidates to indicate whether they are safe or effective for long-term use in humans.

We have limited clinical data on our product candidates and we have not conducted any studies to evaluate whether they are safe or effective for long-term use in humans, including to evaluate the safety of any degradation products that may result after the drug is injected into the intestinal wall. In our Phase 1 clinical trial of RT-101, we tested the RaniPill capsule in a limited number of healthy volunteers. While we have not observed any serious adverse events as a result of these preclinical studies or clinical trial, we have not widely tested the RaniPill capsule in humans and cannot be certain how the RaniPill capsule will perform when more widely tested in humans in any later clinical trials.

If treatment with any of our product candidates in our ongoing or future clinical trials results in concerns about their safety or efficacy, we and our collaboration partners may be unable to successfully develop or commercialize any or all of our product candidates or enter into collaborations with respect to our product candidates.

We have conducted and may in the future conduct clinical trials for current or future product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

We have conducted and may in the future choose to conduct one or more clinical trials outside the United States. For example, we conducted a Phase 1 clinical trial of RT-101 in Australia and in March 2022 we initiated a Phase 1 clinical trial of RT-102 in Australia. The acceptance of study data from clinical trials conducted outside the United States or another jurisdiction by the FDA or comparable foreign regulatory authority may be subject to certain conditions or may not be accepted at all. In cases where data from foreign clinical trials are intended to serve as the sole basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the U.S. population and U.S. medical practice; (ii) the trials were performed by clinical investigators of recognized competence and pursuant to Good Clinical Practice regulations ("GCP"); and (iii) the data may be considered valid without the need for an on-site inspection by the FDA, or if the FDA considers such inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. In addition, even where the foreign study data are not intended to serve as the sole basis for approval, the FDA will not accept the data as support for an application for marketing approval unless the study is well-designed and well-conducted in accordance with GCP and the FDA is able to validate the data from the study through an onsite inspection if deemed necessary. Many foreign regulatory authorities have similar approval requirements. In addition, such foreign trials would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any comparable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA or any comparable foreign regulatory authority does not accept such data, it would result in the need for additional trials, which could be costly and time-consuming, and which may result in current or future product candidates that we may develop not receiving approval for commercialization in the applicable jurisdiction.

Risks Related to Commercialization of Our Product Candidates

Even if we receive regulatory approval for any product candidate, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions on marketing or withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our product candidates, when and if any of them are approved.

If any of our product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies, and submission of safety, efficacy, and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities.

Manufacturers and manufacturers' facilities are required to comply with extensive requirements imposed by the FDA and comparable foreign regulatory authorities, including ensuring that quality control and manufacturing procedures conform to cGMP regulations. As such, we and our contract manufacturers, if any, will be subject to continual review and inspections to assess compliance with cGMP and adherence to commitments made in any BLA or MAA. Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production, and quality control.

Any regulatory approvals that we receive for our product candidates will be subject to limitations on the approved indicated uses for which the product may be marketed and promoted or to the conditions of approval (including the requirement to implement a risk evaluation and mitigation strategy), or contain requirements for potentially costly post-marketing testing. We will be required to report certain adverse reactions and production problems, if any, to the FDA and comparable foreign regulatory authorities. The FDA and other agencies, including the Department of Justice, closely regulate and monitor the post-approval marketing and promotion of products to ensure that they are manufactured, marketed, and distributed only for the approved indications and in accordance with the provisions of the approved labeling. We will have to comply with requirements concerning advertising and promotion for our products. The holder of an approved BLA or MAA must submit new or supplemental applications and obtain approval for certain changes to the approved product, product labeling, or manufacturing process. We could also be asked to conduct post-marketing clinical trials to verify the safety and efficacy of our products in general or in specific patient subsets. If original marketing approval was obtained via the accelerated approval pathway, we could be required to conduct a successful post-marketing clinical trial to confirm clinical benefit for our products. An unsuccessful post-marketing study or failure to complete such a study could result in the withdrawal of marketing approval.

If a regulatory authority discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, such regulatory authorities may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory authority or enforcement authority may, among other things:

- issue warning letters that would result in adverse publicity;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approvals;
- suspend any of our ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our contract manufacturers' facilities;
- seize or detain products; or
- require a product recall.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and

adversely affect our ability to commercialize and generate revenue from our products. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

Even if our product candidates receive marketing approval, they may fail to achieve market acceptance by physicians, patients, government payors (including Medicare and Medicaid programs), private insurers, and other third-party payors, or others in the medical community necessary for commercial success.

If any of our product candidates receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, government payors, other third-party payors and other healthcare providers. If any of our approved products fail to achieve an adequate level of acceptance, we may not generate significant revenue to become profitable. The degree of market acceptance, if approved for commercial sale, will depend on a number of factors, including but not limited to:

- the potential or perceived advantages or disadvantages of the oral delivery of biologics as compared to subcutaneous or IV injections of biologics;
- the efficacy of our product candidates compared to alternative treatments;
- the shelf-life of our product candidates;
- the effectiveness of sales and marketing efforts;
- the cost of treatment in relation to alternative treatments;
- our ability to offer our product candidates for sale at competitive prices;
- the willingness of the target patient population to try the RaniPill capsule;
- the class of drugs that are included in our product candidates continuing to represent the standard-of-care for the respective disease target and continuing to have a long-term favorable safety profile;
- the willingness of physicians to prescribe use of the RaniPill capsule and to prescribe biologics that utilize the RaniPill capsule;
- the willingness of the medical community to offer patients our product candidates in addition to or in the place of current subcutaneous and IV injectable therapies;
- the strength of marketing and distribution support;
- the availability of government and third-party coverage and adequate reimbursement;
- our ability to manufacture sufficient supply to meet patients' demand;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our product candidates together with other medications or treatments.

Because we expect sales of our product candidates, if approved, to generate revenue for us to achieve profitability, the failure of our product candidates to achieve market acceptance would harm our business and could require us to seek collaborations or undertake additional financings sooner than we would otherwise plan.

The FDA and comparable foreign regulatory authorities actively enforce the laws and regulations prohibiting the promotion of off-label uses. If we are found or alleged to have improperly promoted off-label uses, we may become subject to significant liability.

The FDA and comparable foreign regulatory authorities strictly regulate the promotional claims that may be made about prescription products, as our product candidates would be, if approved. In particular, a product may not be promoted for uses that are not approved by the FDA or comparable foreign regulatory authorities as reflected in the product's approved labeling. However, companies may share truthful and not misleading information that is otherwise consistent with a product's FDA approved labeling. If we receive marketing approval for any one of our product candidates, physicians could prescribe such product to their patients in a

manner that is inconsistent with the approved label. If we are found to have promoted such off-label uses, we may become subject to significant liability. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. If we become the target of such an investigation or prosecution based on our marketing and promotional practices, we could face similar sanctions, which would materially harm our business. In addition, management's attention could be diverted from our business operations, significant legal expenses could be incurred, and our reputation could be damaged. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed. If we cannot successfully manage the promotion of our product candidates, if approved, we could become subject to significant liability, which would adversely affect our business and financial condition.

The insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for our product candidates could limit our ability to generate revenue.

The availability and extent of reimbursement by governmental and private payors is essential for most patients to be able to afford medications and therapies. Sales of any of our product candidates that receive marketing approval will depend substantially, both in the United States and internationally, on the extent to which the costs of our product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third-party payors. If reimbursement is not available, or is available only to limited levels, we may not be able to successfully commercialize our product candidates. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain adequate pricing that will allow us to realize a sufficient return on our investment.

Factors payors consider in determining reimbursement are based on whether the product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the United States, the principal decisions about reimbursement for new products are typically made by the Centers for Medicare and Medicaid Services, an agency within the United States Department of Health and Human Services. CMS decides whether and to what extent a new product will be covered and reimbursed under Medicare. Private payors tend to follow CMS to a substantial degree. It is difficult to predict what CMS will decide with respect to reimbursement for novel products such as ours since there is no body of established practices and precedents for these new products. Reimbursement agencies in Europe may be more conservative than CMS.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries may cause us to price our product candidates on less favorable terms that we currently anticipate. In many countries, particularly the countries of the European Union, the prices of medical products are subject to varying price control mechanisms as part of national health systems. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidates to other available therapies. In general, the prices of products under such systems are substantially lower than in the United States. Certain other countries allow companies to fix their own prices for products, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates. Accordingly, in markets outside the United States, the reimbursement for our products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenues and profits.

Moreover, increasing efforts by governmental and third-party payors, in the United States and internationally, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for our product candidates. We expect to experience pricing pressures in connection with the sale of any of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in

general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products into the healthcare market.

We face significant competition from other biotherapeutics and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

The biotherapeutics and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. We have competitors worldwide, including major multinational pharmaceutical companies, biotherapeutics companies, specialty pharmaceutical and generic pharmaceutical companies as well as universities and other research institutions.

Many of our competitors have substantially greater financial, technical and other resources, such as larger research and development staff, and experienced marketing and manufacturing organizations. Mergers and acquisitions in our industry may result in even more resources being concentrated in our competitors. As a result, these companies may obtain regulatory approval more rapidly than we are able and may be more effective in selling and marketing their products. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies.

Competition may increase further as a result of advances in the commercial applicability of newer technologies and greater availability of capital for investment in these industries. Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, pharmaceutical products that are easier to develop, more effective or less costly than any product candidates that we are currently developing or that we may develop. Unforeseen technological advances to those of our technologies may be developed by these competitors. If approved, our product candidates are expected to face competition from commercially available drugs as well as drugs and devices that are in the development pipelines of our competitors.

Pharmaceutical companies may invest heavily to accelerate discovery and development of novel technologies or to in-license novel technologies that could make our product candidates less competitive. In addition, any new product that competes with an approved product must demonstrate advantages in efficacy, convenience, tolerability or safety in order to overcome price competition and to be commercially successful. If our competitors succeed in obtaining FDA or comparable foreign regulatory approval before we do or develop blocking intellectual property to which we do not have a license, there would be a material adverse impact on the future prospects for our product candidates and business.

We face competition primarily from current and future (generic and biosimilars) manufacturers of subcutaneous and IV injectable versions of our product candidates, such as AbbVie Inc., Eli Lilly and Company, Novartis AG, Roche Holdings AG and the SOMA and LUMI from the Novo Nordisk-MIT collaboration. Additionally, we face competition from companies that are pursuing the development and manufacture of oral biologics, including Oramed Pharmaceuticals, Inc., Entera Bio Ltd., Applied Molecular Transport Inc., Protagonist Therapeutics, Inc., Amryt, Inc., i2O Therapeutics, Progenity, Inc., Intract Pharma, and Novo Nordisk A/S. For example, Amryt, Inc. (which acquired Chiasma, Inc.) received FDA approval for an oral octreotide product, MYCAPSSA, in June 2020. We also face competition from gene and cell therapy companies. Further, our product candidates aim to treat chronic diseases. As a result, we also compete with curative therapies on the basis that they cure the chronic disease we are intending to treat.

We believe that our ability to successfully compete will depend on, among other things:

- the efficacy and safety of our product candidates, in particular compared to marketed products and products in late-stage development;
- the time it takes for our product candidates to complete clinical development and receive regulatory approval, if at all;
- the ability to commercialize and market any of our product candidates that receive regulatory approval;
- the price of our products, including in comparison to branded or generic competitors;
- whether coverage and adequate levels of reimbursement are available under private and governmental health insurance plans, including Medicare;
- the ability to protect our intellectual property rights related to our product candidates;
- the ability to avoid infringing on the intellectual property rights of others;

- the ability to manufacture and sell commercial quantities of any of our product candidates that receive regulatory approval; and
- acceptance of any of our product candidates, if approved, by payors, patients, and physicians and other healthcare providers, including perception of the safety and efficacy of the oral delivery of biologics.

Because our research approach depends on our proprietary RaniPill platform, it may be difficult for us to continue to successfully compete in the face of rapid changes in technology. If we fail to continue to advance the RaniPill platform, technological change may impair our ability to compete effectively and technological advances or products developed by our competitors may render our technologies or product candidates obsolete, less competitive or not economical.

We currently have no marketing and sales organization. To the extent any of our product candidates for which we maintain commercial rights is approved for marketing, if we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our product candidates, we may not be able to effectively market and sell any of our product candidates, or generate product revenue.

We currently do not have a marketing or sales organization for the marketing, sales and distribution of biologics products. In order to commercialize any product candidates that receive marketing approval, we would have to build marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. In the event of successful development of any of our product candidates, we may elect to build a targeted specialty sales force which will be expensive and time consuming. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. With respect to our product candidates, we may choose to partner with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems. If we are unable to enter into collaborations with third parties for the commercialization of approved products, if any, on acceptable terms or at all, or if any such partner does not devote sufficient resources to the commercialization of our products or otherwise fails in commercialization efforts, we may not be able to successfully commercialize any of our product candidates that receive regulatory approval. If we are not successful in commercializing our product candidates, either on our own or through collaborations with one or more third parties, our future revenue will be materially and adversely impacted.

If the market opportunities for any product that we develop are smaller than we believe they are, our commercial revenue may be adversely affected and our business may suffer.

Our projections of both the number of people who have the diseases we may be targeting, as well as the subset of people with these health issues who have the potential to benefit from treatment with our current and any of our future product candidates are based on our beliefs and estimates. For example, we are developing RT-101 for the treatment of acromegaly, for which we estimate the patient population is approximately 25,000 people in the United States as of November 2016, RT-102, an oral administration of parathyroid hormone (PTH) for the treatment of osteoporosis, for which we estimate the patient population is approximately ten million in the United States as of 2018, and RT-105, an oral administration of TNF-alfa antibody for the treatment of psoriatic arthritis, for which we estimate the patient population is approximately 2.4 million in the United States as of March 2014. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, or market research, and may prove to be incorrect. Further, new information may change the estimated incidence or prevalence of these diseases. The total addressable market across all of our product candidates will ultimately depend upon, among other things, the diagnosis criteria for indications included in the final label for each of our product candidates approved for sale for these indications, the availability of alternative treatments and the safety, convenience, cost and efficacy of our product candidates relative to such alternative treatments, acceptance by the medical community and patients, and patient access, drug pricing and reimbursement. The number of patients in the United States and other major markets and elsewhere may turn out to be lower than expected, patients may not be otherwise amenable to treatment with our products or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business. Even if we obtain significant market share for our products, if approved, if the potential target populations are small, we may never achieve profitability without obtaining regulatory approval for additional indications.

Additional time may be required to obtain regulatory approval for our product candidates because they are combination products.

We believe our product candidates are biologic-device combination products that require coordination within the FDA and comparable foreign regulatory authorities for review of their device and biologic components. Although the FDA and comparable foreign regulatory authorities have systems in place for the review and approval of combination products such as ours, we may experience delays in the development and commercialization of our product candidates due to regulatory timing constraints and uncertainties in the product development and approval process.

Even if we obtain and maintain approval for any of our product candidates from the FDA, we may never obtain approval for our product candidates outside of the United States, which would limit our market opportunities and adversely affect our business.

Sales of our product candidates outside of the United States will be subject to foreign regulatory requirements governing clinical trials and marketing approval and, to the extent that we retain commercial rights following clinical development, we would plan to seek regulatory approval to commercialize our product candidates in the United States, the European Union and additional foreign countries. Even if the FDA grants marketing approval for a product candidate, comparable foreign regulatory authorities must also approve the manufacturing and marketing of that product candidate in those countries. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials. In many countries outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that country. In some cases, the price that we intend to charge for our products is also subject to approval. We may decide to submit an MAA to the EMA for approval in the European Economic Area ("EEA"). As with the FDA, obtaining approval of an MAA from the EMA is a similarly lengthy and expensive process and the EMA has its own procedures for approval of product candidates. Even if a product is approved, the FDA or the EMA, as the case may be, may limit the indications for which the product may be marketed, require extensive warnings on the product labeling or require expensive and time-consuming clinical trials or reporting as conditions of approval. Foreign regulatory authorities in countries outside of the United States and the EEA also have requirements for approval of drug candidates with which we must comply prior to marketing in those countries. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. Further, clinical trials conducted in one country may not be accepted by comparable foreign regulatory authorities in other countries and regulatory approval in one country does not ensure approval in any other country, while a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory approval process in others. Also, regulatory approval for any of our product candidates may be withdrawn. If we fail to comply with the regulatory requirements in international markets or fail to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our product candidates will be harmed and our business will be adversely affected.

Risks Related to Our Reliance on Third Parties

We may not be successful in maintaining or obtaining formulation and manufacturing collaborations, and any potential partner may not devote sufficient resources to the formulation and manufacturing of our product candidates or may otherwise fail in formulation and manufacturing efforts, which could adversely affect our ability to develop certain of our product candidates and adversely affect our financial condition and operating results.

In the past, we have entered into evaluation agreements with Takeda and certain other pharmaceutical companies concerning the formulation and manufacture of oral versions of Factor VIII and other molecules. We currently have no active evaluation agreements. Future evaluation agreements, and any additional collaborations entered into, may not ultimately be successful, which could have a negative impact on our business, results of operations, financial condition and growth prospects. While we plan to expand our reach by selectively entering into strategic partnerships, we may not be able to enter into such partnerships, and if we do, we may not be able to maintain significant rights or control of future development and commercialization of our product candidates. Accordingly, if we collaborate with a third party for development and commercialization of a product candidate, we may relinquish some or all of the control over the future success of that product candidate to the third party, and that partner may not devote sufficient resources to the formulation and manufacture of our product candidate or may otherwise fail in these efforts, in which event the formulation and manufacture of the product candidate in the collaboration could be delayed or terminated and our business could be substantially harmed.

We believe our product candidates are biologic-device combination products that we anticipate will be regulated under the biologic regulations of the FDA based on its primary mode of action as a biologic. Third-party manufacturers may not be able to comply with the regulatory requirements, known as cGMP, applicable to biologic-device combination products, including applicable provisions of the FDA's drug and biologics cGMP regulations, device cGMP requirements embodied in the medical device Quality System Regulations ("QSRs"), or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates, operating restrictions and criminal prosecutions, any of which could significantly affect supplies of our product candidates. The facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted after we submit any BLA to the FDA.

In addition, the terms of any potential collaboration or other arrangement that we may establish may not be favorable to us or may not be perceived as favorable, which may negatively impact the price of our Class A common stock. In some cases, we may be responsible for continuing formulation of a product candidate under a collaboration, and the payments we receive from our partner may be insufficient to cover the cost of this formulation or may result in a dispute between the parties. Moreover, collaborations and

sales and marketing arrangements are complex and time consuming to negotiate, document and implement and they may require substantial resources to maintain, which may be detrimental to the development of our other product candidates.

We are subject to a number of additional risks associated with our dependence on collaborations with third parties, the occurrence of which could cause our collaboration arrangements to fail. Conflicts may arise between us and partners, such as conflicts concerning the implementation of development plans, efforts and resources dedicated to the product candidate, interpretation of clinical data, the achievement of milestones, the interpretation of financial provisions or the ownership of intellectual property developed during the collaboration. If any such conflicts arise, a collaborator could act in its own self-interest, which may be adverse to our interests. Any such disagreement between us and a partner could result in one or more of the following, each of which could delay or prevent the development or commercialization of our product candidates, and in turn prevent us from generating sufficient revenue to achieve or maintain profitability:

- reductions in the payment of royalties or other payments we believe are due pursuant to the applicable collaboration arrangement;
- actions taken by a partner inside or outside our collaboration which could negatively impact our rights or benefits under our collaboration; or
- unwillingness on the part of a partner to keep us informed regarding the progress of its development and commercialization activities or to permit public disclosure of the results of those activities.

In addition, the termination of a collaboration may limit our ability to obtain rights to the product or intellectual property developed by our collaborator under terms that would be sufficiently favorable for us to consider further development or investment in the terminated collaboration product candidate, even if it were returned to us.

We rely on third parties to conduct our preclinical studies and clinical trials. If these third parties do not successfully carry out their contractual duties or do not meet regulatory requirements or expected deadlines, we may not be able to obtain timely regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We have relied upon and plan to continue to rely upon third-party CROs to monitor and manage clinical trials and collect data during our preclinical studies and clinical programs. We rely on these parties for execution of our preclinical studies and clinical trials, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that their conduct meets regulatory requirements and that each of our studies and trials is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on CROs does not relieve us of our regulatory responsibilities. Thus, we and our CROs are required to comply with GCPs, which are regulations and guidelines promulgated by the FDA and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may not accept the data or may require us to perform additional clinical trials before considering our filing for regulatory approval or approving our marketing application. We cannot assure you that upon inspection by a regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCPs. While we have agreements governing activities of our CROs, we may have limited influence over their actual performance and the qualifications of their personnel conducting work on our behalf. Failure to comply with applicable regulations in the conduct of the clinical studies for our product candidates may require us to repeat clinical trials, which would delay the regulatory approval process.

Some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the volunteers participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors or if we are liquidated.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs or do so on commercially reasonable terms. In addition, our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our preclinical and clinical programs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a

result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase substantially and our ability to generate revenue could be delayed significantly.

Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

We depend on third-party suppliers for key materials used in our manufacturing processes as well as for the manufacturing of APIs and drug substances. We do not have long-term supply arrangements in place for APIs and drug substances. The loss of third-party suppliers or their inability to supply us with adequate materials and APIs or drug substances could prevent or delay the conduct of our clinical trials and the commercialization of our products, if approved, and could harm our business.

We rely on third-party suppliers for the supply of the raw materials and APIs or drug substances required for the production of our product candidates, and we may to some extent rely on third-party manufacturers for the commercial supply of any of our product candidates for which we seek to obtain marketing approval. In addition, we work with third parties to manufacture and develop biologics for inclusion in the RaniPill capsule and for use in our clinical trials.

Our dependence on these third parties and the challenges we may face in obtaining adequate supplies of raw materials, APIs and drug substances involve several risks, including limited control over pricing, availability, quality, delivery schedules and non-exclusivity. As a small company, our negotiation leverage is limited, and we are likely to get lower priority than our competitors who are larger than we are. We do not have long-term supply agreements, and we purchase our required supplies on a development manufacturing services agreement or purchase order basis or the like. These third parties may not continue to provide us with the quantities of these materials that we require to satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or sole sourced raw materials, APIs or drug substances could materially harm our ability to manufacture our product candidates until a new source of supply, if any, could be identified and qualified. We may be unable to find a sufficient alternative supply channel in a reasonable time or on commercially reasonable terms. Any performance failure on the part of our suppliers could prevent us from conducting, or cause delays to, our current or planned clinical trials, commercialization of our products, if approved, and have an adverse effect on our business, financial condition and results of operations.

We may seek to enter into collaborations, licenses and other similar arrangements and may not be successful in doing so, and even if we are, we may not realize the benefits of such relationships.

We may seek to enter into, and have entered into, collaborations, joint ventures, licenses and other similar arrangements for the development or commercialization of our product candidates, due to capital costs required to develop or commercialize the product candidate or manufacturing constraints. We may not be successful in our efforts to establish or maintain such collaborations for our product candidates because our research and development pipeline may be insufficient, our product candidates may be deemed to be at too early of a stage of development for collaborative effort or third parties may not view our product candidates as having the requisite potential to demonstrate safety and efficacy or significant commercial opportunity. In addition, we face significant competition in seeking appropriate strategic partners, and the negotiation process can be time consuming and complex. Further, any future collaboration agreements may restrict us from entering into additional agreements with potential collaborators. Following a strategic transaction or license, we may not achieve an economic benefit that justifies such transaction.

Even if we are successful in our efforts to establish such collaborations, the terms that we agree upon may not be favorable to us, and we may not be able to maintain such collaborations if, for example, development or approval of a product candidate is delayed, the safety of a product candidate is questioned or sales of an approved product candidate are unsatisfactory.

In addition, any potential future collaborations may be terminable by our strategic partners, and we may not be able to adequately protect our rights under these agreements. Furthermore, strategic partners may negotiate for certain rights to control decisions regarding the development and commercialization of our product candidates, if approved, and may not conduct those activities in the same manner as we do. Any termination of collaborations that we may enter into in the future, or any delay in entering into collaborations related to our product candidates, could delay the development and commercialization of our product candidates and reduce their competitiveness if they reach the market, which could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to Our Business and Industry

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the timing, degree of success and cost of, and level of investment in, research, development, regulatory approval and commercialization activities relating to our product candidates, which may change from time to time;
- coverage and reimbursement policies with respect to our product candidates, if approved, and potential future drugs that compete with our products;
- the cost of manufacturing our product candidates, which may vary depending on the quantity of production;
- expenditures that we may incur to acquire, develop or commercialize additional product candidates and technologies;
- the level of demand for any approved products, which may vary significantly;
- future accounting pronouncements or changes in our accounting policies; and
- the timing and success or failure of preclinical studies or clinical trials for our product candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue or earnings guidance we may provide.

We are heavily dependent on the success of our product candidates in our core programs, and if any of these product candidates fail to enter clinical trials, receive regulatory approval or are not successfully commercialized, our business would be adversely affected.

We currently have no product candidates that are in late-stage clinical trials or are approved for commercial sale, and we may never be able to develop a marketable product. We have two product candidates, RT-101 and RT-102, in clinical development. We expect that a substantial portion of our efforts and expenditures over the next few years will be devoted to the development of the RaniPill platform that is designed to enable the oral administration of a broad range of biologics used to treat multiple diseases and disorders. We intend to evaluate the safety of the RaniPill capsule independent of any biologic. The RaniPill capsule may not receive regulatory approval in connection with any biologic or, if approved, it may not be successfully commercialized. The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of the RaniPill capsule for the indications we are seeking will remain subject to extensive regulation by the FDA and comparable foreign regulatory authorities in the United States and other countries, each of which has differing regulations. In addition, even if approved, pricing and reimbursement will be subject to further review and discussions with payors. We are not permitted to market any product candidate in the United States until after approval of a BLA from the FDA, or a similar marketing authorization from comparable authorities in any foreign countries until after approval of a marketing application by corresponding foreign regulatory authorities. We completed a Phase 1 clinical trial of RT-101, initiated a Phase 1 clinical trial of RT-102 in March 2022, and have completed preclinical studies of other product candidates. We plan to initiate Phase 1 clinical trials of certain product candidates in 2022 and in 2023. We will need to conduct larger, more extensive clinical trials in the target patient populations for these product candidates and their indications to support a potential application for regulatory approval by the FDA or corresponding foreign regulatory authorities, and we do not expect to be in a position to do so for the near term.

We have not previously submitted a BLA to the FDA, or similar product approval filings to comparable foreign authorities, for any product candidate, and our product candidates may not be successful in clinical trials or receive regulatory approval. Filing an application and obtaining regulatory approval for a biologic product candidate is an extensive, lengthy, expensive and inherently uncertain process, and the regulatory authorities may delay, limit or deny approval of our product candidates for many reasons, including:

- we may not be able to demonstrate that any of our product candidates is safe and effective to the satisfaction of the FDA or comparable foreign regulatory authorities;
- the FDA or comparable foreign regulatory authorities may require additional preclinical studies or clinical trials prior to granting approval, which would increase our costs and extend the pre-approval development process;
- the results of our clinical trials may not meet the level of statistical or clinical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the FDA or comparable foreign regulatory authorities may disagree with the number, design, size, conduct or statistical analysis of one or more of our clinical trials;
- the FDA or comparable foreign regulatory authorities may disagree with, or not accept, our interpretation of data from our preclinical studies and clinical trials;
- the FDA or comparable foreign regulatory authorities may identify deficiencies in our manufacturing processes or facilities which would be required to be corrected prior to regulatory approval;
- the success or further approval of competitor products approved in indications in which we undertake development of our product candidates may change the standard of care or change the standard for approval of our product candidate in our proposed indications; and
- the FDA or comparable foreign regulatory authorities may change their approval policies or adopt new regulations.

Our product candidates will require additional research, clinical development, manufacturing activities, regulatory approval in multiple jurisdictions (if regulatory approval can be obtained at all), securing sources of commercial manufacturing supply and building of or partnering with a commercial organization. Our planned clinical trials for the RaniPill platform may not be initiated or completed in a timely manner or successfully, or at all. Further we may not advance any other product candidates into clinical trials. Moreover, any delay or setback in the development of any product candidate would be expected to adversely affect our business and cause our stock price to fall.

We may not be successful in our efforts to use and expand our proprietary RaniPill platform to build a pipeline of product candidates.

A key element of our strategy is to leverage the RaniPill platform to expand our pipeline of product candidates and in order to do so, we must continue to invest in the RaniPill platform and development capabilities. Although our research and development efforts to date have resulted in a pipeline of our core product candidates, these product candidates may not be safe and effective and may not obtain regulatory approval. In addition, although we plan to develop the RaniPill platform to deliver a diverse pipeline of product candidates across multiple diseases and disorders, we may not prove to be successful at doing so. Furthermore, we may also find that the uses of the RaniPill platform are limited because alternative uses of our biologics prove not to be safe or effective. Even if we are successful in continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval or achieve market acceptance. Even after approval, if we cannot successfully develop or commercialize our products, or if serious adverse events are discovered after commercialization, we will not be able to generate any product revenue, which would adversely affect business.

Changes in regulatory requirements and guidance may also occur and we may need to amend clinical trial protocols submitted to applicable regulatory authorities to reflect these changes. Amendments may require us to resubmit clinical trial protocols to IRBs or ECs for re-examination, which may impact the costs, timing or successful completion of a clinical trial.

The policies of the FDA and comparable foreign regulatory authorities may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our current or any of our future product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or

administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, and we may not achieve or sustain profitability, which would harm our business, prospects, financial condition and results of operations.

If we are required to conduct additional clinical trials or other preclinical studies with respect to our current or future product candidates, or if we are unable to successfully complete our preclinical studies or planned clinical trials, we may be delayed in obtaining regulatory approval of our current or any of our future product candidates, we may not be able to obtain regulatory approval at all or we may obtain approval for indications that do not provide a broad commercial opportunity. Our product development costs will also increase if we experience delays in testing or approvals, and we may not have sufficient funding to complete the testing and approval process for our current or any of our future product candidates. Significant clinical trial delays could allow our competitors to bring products to market before we do and impair our ability to commercialize our products if and when approved. If any of this occurs, our business would be harmed.

All of our product candidates, except for RT-101 and RT-102, are in research or preclinical development and have not entered into clinical trials. If we are unable to develop, test and commercialize our product candidates, our business will be adversely affected.

As part of our strategy, we seek to discover, develop and commercialize a portfolio of product candidates that deliver different biologics through the RaniPill capsule. Research programs to identify appropriate biological targets and product candidates require substantial scientific, technical, financial and human resources, whether or not any product candidates are ultimately identified. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for many reasons, including:

- our financial and internal resources are insufficient;
- our research methodology used may not be successful in identifying potential product candidates;
- competitors may develop alternatives that render our product candidates uncompetitive;
- our product candidates may be shown to have harmful side effects or other characteristics that indicate such product candidate is unlikely to be effective or otherwise unlikely to achieve applicable regulatory approval;
- our product candidates may not be capable of being produced in commercial quantities at an acceptable cost, or at all; or
- our product candidates may not be accepted by patients, the medical community, healthcare providers or third-party payors.

Our proprietary RaniPill platform may not result in any products of commercial value.

We have developed a proprietary platform designed to enable the administration of biologics previously only administrable by subcutaneous or IV injection, and this approach forms the basis of our overall development strategy for all of our product candidates.

For multiple reasons, the RaniPill platform may not ultimately be commercially valuable, including:

- the RaniPill platform may not work in conjunction with our targeted biologic indications or future indications to yield product candidates that can enter clinical development;
- we may not be successful in our efforts to expand the applicability of the RaniPill platform beyond our current product pipeline;
- we may not be able to enter into licensing or partnership agreements on suitable terms to obtain and develop oral versions of biologics; and
- the medical community may not accept the RaniPill platform and physicians may not prescribe our products to patients, if approved.

In addition, we have designed our platform to be drug-agnostic, which we believe could enable us to expand into additional markets beyond our current pipeline. While our research and development efforts support the use of the peptides and antibodies we have evaluated to date for inclusion in the RaniPill capsule, there could be molecules that are unable to be inserted in the RaniPill capsule, whether as a result of payload capacity, mechanism of action, or otherwise, the result of which would significantly harm our product candidates' commercial potential.

Furthermore, the product candidates contemplated by our current product pipeline were designed with needles that have the ability to deliver 3 mg of a biologic, which we refer to as payload capacity. While we are developing an oral delivery capsule intended to deliver up to 20 mg which could enable us to expand our platform to include additional molecules, we may still be precluded from using certain high load biologics for inclusion in the RaniPill capsule, which could adversely affect the commercial potential of the RaniPill platform. Additionally, to the extent we are able to develop RaniPill HC or another device with a larger payload capacity, we may be required to conduct additional preclinical or clinical studies to establish performance characteristics of the updated design, and for regulatory authorities to permit evaluation of the updated design in human subjects.

As a result of a failure in any one of these factors, our business, financial condition and results of operations could be adversely affected.

Our new high-capacity oral delivery device, RaniPill HC, is in early stages of development, and it is subject to the inherent risks and uncertainties of developing a novel, innovative technology. Our efforts to develop RaniPill HC may not be successful.

RaniPill HC is in early stages of development, and it is subject to the inherent risks and uncertainties of developing a novel, innovative potential technology. Development of a new delivery device is time-consuming and costly, and could distract the attention of our management or other employee resources from our existing and future business. Our efforts to develop RaniPill HC may not be successful or RaniPill HC may require modifications that could limit its utility or viability as an oral delivery device. We may not be able to complete development of RaniPill HC in a timely manner, or at all, or such development may require an amount of time and resource that we are not able to devote to it or believes is not warranted based on the estimated benefits. The potential value of RaniPill HC may never be realized for a variety of reasons, including that we are not able to successfully develop RaniPill HC, third parties develop competitive technologies or products similar to or more effective or attractive than RaniPill HC, we are not able to develop manufacturing processes to produce RaniPill HC consistently and reliably or within a cost range that makes RaniPill HC products commercially viable. Any such factor could reduce or eliminate the potential value of RaniPill HC or product candidates that could be developed using RaniPill HC. In addition, while we currently expect that RaniPill HC will be able to leverage many of the same components and manufacturing processes as are used for our existing delivery device, it may turn out that such components or manufacturing processes are not suited for RaniPill HC or RaniPill HC may require modifications that negatively affect our ability to use common components or processes between the existing device and RaniPill HC. Any of the foregoing factors or circumstances may adversely affect our business prospects, our attractiveness as a business partner or collaborator, our ability to raise additional capital, and our financial results.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of any of our product candidates, if approved.

We face an inherent risk of product liability as a result of the clinical testing of our product candidates and will face an even greater risk if we commercialize any products. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to stop development or, if approved, limit commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- delay or termination of clinical studies;
- injury to our reputation;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- costs to defend the related litigation;

- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- decreased demand for our product candidates;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue from product sales; and
- the inability to commercialize any of our product candidates, if approved.

Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the development or commercialization of our product candidates. Although we maintain clinical trial liability insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

The manufacture and packaging of biologics is subject to FDA requirements and those of comparable foreign regulatory authorities. If we or our third-party manufacturers fail to satisfy these requirements, our product development and commercialization efforts may be harmed.

The manufacture and packaging of biologics is regulated by the FDA and comparable foreign regulatory authorities and must be conducted in accordance with the FDA's cGMP and comparable requirements of foreign regulatory authorities. There are a limited number of manufacturers that operate under these cGMP regulations who are both capable of manufacturing biologics and willing to do so. Failure by us or our third-party manufacturers to comply with applicable regulations or requirements could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delays, suspension or withdrawal of approvals, seizures or voluntary recalls of product, operating restrictions and criminal prosecutions, any of which could harm our business. Our product candidates require aseptic manufacturing techniques that may present additional manufacturing challenges compared to other oral route of administration products. The same requirements and risks are applicable to the suppliers of the key raw material used to manufacture the active pharmaceutical ingredients or drug substances for the biologics of our product candidates.

Manufacturers of combination products need to comply with both pharmaceutical cGMPs and medical device QSRs enforced by the FDA through its facilities inspection programs. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation. We or third party manufacturers of our product candidates may be unable to comply with these cGMP and QSR requirements and with other FDA and foreign regulatory requirements. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval. If the safety of any of our product candidates is compromised due to failure to adhere to applicable laws or for other reasons, we may not be able to successfully commercialize such product candidate, and we may be held liable for any injuries sustained as a result. Any of these factors could cause a delay in the commercialization of our product candidates, entail higher costs or even prevent us from effectively commercializing our product candidates.

Changes in the manufacturing process or procedure, including a change in the location where the product is manufactured or a change of a third-party manufacturer, may require prior FDA review and approval of the manufacturing process and procedures in accordance with the FDA's cGMPs and QSRs. Any new facility is subject to a pre-approval inspection by the FDA and would again require us to demonstrate product comparability to the FDA. We would also need to verify, such as through a manufacturing comparability study, that any new manufacturing process would produce our product candidate according to the specifications previously submitted to the FDA, and there are comparable foreign requirements. The delays associated with the verification of a new third party manufacturer could negatively affect our ability to develop product candidates or commercialize our products in a timely manner or within budget. This review may be costly and time consuming and could delay or prevent the launch of a product.

Furthermore, in order to obtain approval of our product candidates by the FDA and comparable foreign regulatory authorities, we will be required to consistently produce our formulation of the API or drug substance, and the finished product in commercial quantities and of specified quality on a repeated basis and document our ability to do so. This requirement is referred to as process validation. Each of our potential API and drug substance suppliers will likely use a different method to manufacture API or

drug substance, which has the potential to increase the risk to us that our manufacturers will fail to meet applicable regulatory requirements. We also need to complete process validation on the finished product in the packaging we propose for commercial sales. This includes testing of stability, measurement of impurities and testing of other product specifications by validated test methods. If the FDA does not consider the result of the process validation or required testing to be satisfactory, we may not obtain approval to launch the product or approval, launch or commercial supply after launch may be delayed.

The FDA and comparable foreign regulatory authorities may also implement new requirements, or change their interpretation and enforcement of existing requirements, for manufacture, packaging or testing of products at any time. If we are unable to comply, we may be subject to regulatory actions, civil actions or penalties which could harm our business.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws health information privacy and security laws, and other healthcare laws and regulations. Violations of such laws and regulations could subject us to significant penalties.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws data privacy and security laws, and other healthcare laws and regulations. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties. Healthcare providers and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may affect the business or financial arrangements and relationships through which we would market, sell and distribute our products. Even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. The laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, receiving, offering, or paying remuneration, directly or indirectly, in cash or in kind, in exchange for or to induce either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation;

- the federal false claims and civil monetary penalties laws, including the False Claims Act, which can be enforced through civil whistleblower or qui tam actions, impose criminal and civil penalties against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious, or fraudulent; knowingly making, using, or causing to be made or used, a false record or statement to get a false or fraudulent claim paid or approved by the government; or knowingly making, using, or causing to be made or used, a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false of fraudulent claim for purposes of the False Claims Act. Manufacturers can be held liable under the federal False Claims Act even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims;

- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which created new federal criminal statutes that prohibit a person or entity from, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false, fictitious, or fraudulent statements or representations in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH"), and their implementing regulations, which also imposes obligations, including mandatory contractual terms, on "covered entities," including certain healthcare providers, health plans, and healthcare clearinghouses, and their respective "business associates" that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity as well as their covered subcontractors with respect to safeguarding the privacy, security and transmission of individually identifiable health information. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal

courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions;

- the federal civil monetary penalties statute, which prohibits, among other things, the offering or giving of remuneration to a Medicare or Medicaid beneficiary that the person knows or should know is likely to influence the beneficiary's selection of a particular supplier of items or services reimbursable by a Federal or state governmental program;

- the federal Physician Payment Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to the government information related to certain payments and other "transfers of value" made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other healthcare professionals (such as physician assistants and nurse practitioners), and teaching hospitals, and requires applicable manufacturers to report annually to the government ownership and investment interests held by the physicians described above and their immediate family members and payments or other "transfers of value" to such physician owners; and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; and state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws governing the data privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Further, in March 2010, the ACA, among other things, amended the intent requirements of the federal Anti-Kickback Statute and certain criminal statutes governing healthcare fraud. A person or entity can now be found guilty of violating the statute without actual knowledge of the statute or specific intent to violate it. In addition, the ACA provided that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act. Moreover, while we do not submit claims and our customers make the ultimate decision on how to submit claims, from time to time, we may provide reimbursement guidance to our customers. If a government authority were to conclude that we provided improper advice to our customers or encouraged the submission of false claims for reimbursement, we could face action against us by government authorities. Any violations of these laws, or any action against us for violation of these laws, even if we successfully defend against it, could result in a material adverse effect on our reputation, business, results of operations and financial condition.

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform. Federal and state enforcement bodies have continued their scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and significant settlements in the healthcare industry. Responding to investigations can be time-and resource-consuming and can divert management's attention from the business. Additionally, as a result of these investigations, healthcare providers and entities may have to agree to additional onerous compliance and reporting requirements as part of a consent decree or corporate integrity agreement. Any such investigation or settlement could increase our costs or otherwise have an adverse effect on our business.

If our operations are found to be in violation of any of these laws or any other governmental laws and regulations that may apply to us, we, or our directors, officers, employees, independent contractors, and/or agents, may be subject to significant civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, contractual damages, reputational harm, diminished profits and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.

In the United States and some foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could, among other things, prevent or

delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

For example, in the United States in March 2010, the ACA was enacted to increase access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and the health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The law has continued the downward pressure on pharmaceutical pricing, especially under the Medicare program, and increased the industry's regulatory burdens and operating costs. Among the provisions of the ACA of importance to our potential product candidates are the following:

- an annual, non-tax deductible fee payable by any entity that manufactures or imports specified branded prescription drugs and biologic agents payable to the federal government based on each company's market share of prior year total sales of branded products to certain federal healthcare programs;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- a methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected;
- extension of manufacturers' Medicaid rebate liability to individuals enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs in certain states;
- a Medicare Part D coverage gap discount program, in which manufacturers must now agree to offer 50% (increased to 70% pursuant to the Bipartisan Budget Act of 2018, effective as of January 1, 2019) point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries under their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

There have been executive, judicial and Congressional challenges to certain aspects of the ACA. For example, on June 17, 2021 the U.S. Supreme Court dismissed a challenge on procedural grounds that argued the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. Thus, the ACA will remain in effect in its current form. It is possible that the ACA will be subject to additional challenges in the future. It is unclear how such challenges and the healthcare reform measures of the Biden administration will impact the ACA, or the impact any changes to the ACA may have on our ability to commercialize products or the prices we are able to obtain.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. These changes included aggregate reductions to Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and, due to subsequent legislative amendments to the statute, including the Infrastructure Investment and Jobs Act, will remain in effect through 2031 unless additional action is taken by Congress. However, the Medicare sequester reductions under the Budget Control Act of 2011 have been suspended from May 1, 2020 through March 31, 2022 due to the COVID-19 pandemic. Under current legislation the actual reduction in Medicare payments will vary from 1% in 2022 to up to 3% in the final fiscal year of this sequester. Further, Congress is considering additional health reform measures.

In addition, recently there has been heightened governmental scrutiny over the manner in which drug manufacturers set prices for their commercial products. At the federal level, the former Trump administration used several means to propose or implement drug pricing reform, including through federal budget proposals, executive orders and policy initiatives. In July 2021, the Biden administration released an executive order, "Promoting Competition in the American Economy," with multiple provisions aimed at prescription drugs. In response to Biden's executive order, on September 9, 2021, the U.S. Department of Health and Human Services ("HHS") released a Comprehensive Plan for Addressing High Drug Prices that outlines principles for drug pricing reform and sets out a variety of potential legislative policies that Congress could pursue as well as potential administrative actions HHS can take to advance these principles. No legislation or administrative actions have been finalized to implement these principles. It is unclear whether these or similar policy initiatives will be implemented in the future. Individual states in the United States have also

become increasingly aggressive in passing legislation and implementing regulations designed to control drug pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our product candidates, if approved.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare therapies, which could result in reduced demand for our product candidates or additional pricing pressures.

Legislative and regulatory proposals have also been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic.

Governments outside the United States tend to impose strict price controls, which may adversely affect our revenues, if any.

In some countries, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product candidate. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after coverage and reimbursement have been obtained. Reference pricing used by various countries and parallel distribution or arbitrage between low-priced and high-priced countries, can further reduce prices. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies, which is time-consuming and costly. If coverage and reimbursement of our product candidates are unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be harmed, possibly materially.

Our future success depends on our ability to retain our executive officers and to attract, retain and motivate highly qualified personnel. If we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our industry has experienced a high rate of turnover of management personnel in recent years. Our ability to compete in the highly competitive biotherapeutics and pharmaceuticals industries depends upon our ability to attract and retain highly qualified managerial, scientific, medical, engineering and regulatory personnel. We are highly dependent on our founder and Executive Chairman, Mir Imran, and our existing senior management team. We are not aware of any present intention of any of these individuals to leave us. All of our employees may terminate their employment with us at any time, with or without notice. In addition, we manufacture the RaniPill capsule internally. As a result, we rely and will continue to rely on highly qualified manufacturing personnel to manufacture the RaniPill capsule. The loss of the services of any of our executive officers or other key employees and our inability to find suitable replacements would harm our manufacturing efforts as well as our business, financial condition and prospects. Our success depends on our ability to continue to attract, retain and motivate highly skilled and experienced personnel with scientific, medical, regulatory, manufacturing and management training and skills.

We may not be able to attract or retain qualified personnel in the future due to the intense competition for a limited number of qualified personnel among biotherapeutics, biotechnology, pharmaceutical and other businesses. Many of the other biopharmaceutical companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. Our competitors may provide higher compensation or more diverse opportunities and better opportunities for career advancement. Any or all of these competing factors may limit our ability to continue to attract and retain high quality personnel, which could negatively affect our ability to successfully develop and commercialize product candidates and to grow our business and operations as currently contemplated.

We will need to expand the size of our organization, and we may experience difficulties in managing this growth.

As our development and commercialization plans and strategies develop and we operate as a public company, we expect to need additional managerial, operational, scientific, sales, marketing, development, regulatory, manufacturing, financial and other resources. Future growth would impose significant added responsibilities on members of management, including:

- designing and managing our clinical trials effectively;

- identifying, recruiting, maintaining, motivating and integrating additional employees;
- managing our manufacturing and development efforts effectively;
- improving our managerial, development, operational and financial systems and controls; and
- expanding our facilities.

As our operations expand, we expect that we will need to manage relationships with our partners, suppliers, vendors and other third parties. Our future financial performance and our ability to develop and commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. We may not be successful in accomplishing these tasks in growing our company, and our failure to accomplish any of them could adversely affect our business and operations.

If we do not achieve our projected development and commercialization goals in the timeframes we announce and expect, the commercialization of our product candidates may be delayed, and our business will be harmed.

We estimate for planning purposes the timing of the accomplishment of various scientific, clinical, regulatory and other product development objectives. These milestones may include our expectations regarding the commencement or completion of scientific studies, clinical trials, the submission of regulatory filings, or commercialization objectives. From time to time, we may publicly announce the expected timing of some of these milestones, such as the completion of an ongoing clinical trial, the initiation of other clinical programs, receipt of marketing approval, or a commercial launch of a product. The achievement of many of these milestones may be outside of our control. All of these milestones are based on a variety of assumptions which may cause the timing of achievement of the milestones to vary considerably from our estimates, including:

- our available capital resources or capital constraints we experience;
- the rate of progress, costs and results of our clinical trials and research and development activities, including the extent of scheduling conflicts with participating clinicians and collaborators, and our ability to identify and enroll patients who meet clinical trial eligibility criteria;
- our receipt of approvals by the FDA and comparable foreign regulatory authorities and the timing thereof;
- other actions, decisions or rules issued by regulators;
- our ability to access sufficient, reliable and affordable supplies of compounds used in the manufacture of our product candidates;
- the ability of our suppliers to reliably provide the quantity of materials needed to manufacture and commercialize our products;
- the non-occurrence of adverse events or serious adverse events in preclinical studies or clinical trials of our product candidates;
- the efforts of our collaborators and the success of our own efforts with respect to the commercialization of our products; and
- the securing of, costs related to, and timing issues associated with, product manufacturing, including scale and automation processes, as well as sales and marketing activities.

If we fail to achieve announced milestones in the timeframes we announce and expect, the commercialization of our product candidates may be delayed and our business and results of operations may be harmed.

We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of intellectual property, products or technologies. Any future transactions could increase our near and long-term expenditures, result in potentially dilutive issuances of our equity securities, including our common stock, or the incurrence of

debt, contingent liabilities, amortization expenses or acquired in-process research and development expenses, any of which could affect our financial condition, liquidity and results of operations. Additional potential transactions that we may consider in the future include a variety of business arrangements, including spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Future acquisitions may also require us to obtain additional financing, which may not be available on favorable terms or at all. These transactions may never be successful and may require significant time and attention of management. In addition, the integration of any business that we may acquire in the future may disrupt our existing business and may be a complex, risky and costly endeavor for which we may never realize the full benefits of the acquisition. Accordingly, although we may not undertake or successfully complete any additional transactions of the nature described above, any additional transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition and prospects.

Our insurance policies are expensive and only protect us from some business risks, which will leave us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include products and completed operations liability, business personal property and directors' and officers' insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities. In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Our employees, independent contractors, principal investigators, consultants and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

We are exposed to the risk that our employees, independent contractors, principal investigators, consultants and vendors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violates: (i) FDA laws and regulations or those of comparable foreign regulatory authorities, including those laws that require the reporting of true, complete and accurate information to the FDA, (ii) manufacturing standards, (iii) federal and state data privacy, security, fraud and abuse and other healthcare laws and regulations established and enforced by comparable foreign regulatory authorities, or (iv) laws that require the true, complete and accurate reporting of financial information or data. Activities subject to these laws also involve the improper use or misrepresentation of information obtained in the course of clinical trials, creating fraudulent data in our preclinical studies or clinical trials or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and third-parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Additionally, we are subject to the risk that a person or government could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

Our headquarters and certain of our data storage facilities are located near known earthquake fault zones. The occurrence of an earthquake, fire or any other catastrophic event could disrupt our operations or the operations of third parties who provide vital support functions to us, which could have a material adverse effect on our business and financial condition.

We and some of the third-party service providers on which we depend for various support functions, such as data storage, are vulnerable to damage from catastrophic events, such as power loss, natural disasters, terrorism and similar unforeseen events beyond our control. Our corporate headquarters is located in San Jose, which in the past has experienced severe earthquakes and fires.

We do not carry earthquake insurance. Earthquakes or other natural disasters could severely disrupt our operations, and have a material adverse effect on our business, results of operations, financial condition and prospects.

If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, damaged critical infrastructure, such as our data storage facilities or financial systems, or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time. We do not have a disaster recovery and business continuity plan in place. We may incur substantial expenses as a result of the absence or limited nature of our internal or third-party service provider disaster recovery and business continuity plans, which, particularly when taken together with our lack of earthquake insurance, could have a material adverse effect on our business. Furthermore, integral parties in our supply chain are operating from single sites, increasing their vulnerability to natural disasters or other sudden, unforeseen and severe adverse events. If such an event were to affect our supply chain, it could have a material adverse effect on our development plans and business.

Changes in funding for the FDA and other government agencies could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory authorities, such as the FDA, have had to furlough critical FDA employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

Since March 2020 when foreign and domestic inspections were largely placed on hold, the FDA has been working to resume routine surveillance, bioresearch monitoring and pre-approval inspections to prioritized basis and may experience delays in their regulatory activities. The FDA has developed a rating system to assist in determining when and where it is safest to conduct prioritized domestic inspections and resumed inspections in China and India in 2021. In April 2021, the FDA issued guidance for industry formally announcing plans to employ remote interactive evaluations, using risk management methods, to meet user fee commitments and goal dates. Should FDA determine that an inspection is necessary for approval and inspection cannot be completed during the review cycle due to restrictions on travel, and the FDA does not determine a remote interaction evaluation to be appropriate, the agency has stated that it generally intends to issue a complete response letter. Further, if there is an inadequate information to make a determination on the acceptability of a facility, FDA may defer action on the application until an inspection can be completed. In 2020, several companies announced receipt of complete response letters due to the FDA's inability to complete required inspections for their applications. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or comparable foreign regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or comparable foreign regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

The COVID-19 pandemic could adversely impact our business including our ongoing and planned preclinical studies and clinical trials.

Since COVID-19 surfaced in Fall 2019, the virus has spread to numerous countries, including the United States, resulting in the World Health Organization characterizing COVID-19 as a pandemic. As a result of the COVID-19 pandemic, we have experienced and may continue to experience delays in our preclinical and planned clinical development activities. The COVID-19

pandemic has and may continue to impact our third-party manufacturers and suppliers, which could disrupt its supply chain or the availability or cost of materials. The effects of the public health directives and our work-from-home policies may negatively impact productivity, disrupt our business, and delay clinical programs and timelines and future clinical trials, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on our ability to conduct business in the ordinary course. These and similar, and perhaps more severe, disruptions in our operations could negatively impact business, results of operations and financial condition, including its ability to obtain financing. The extent to which the COVID-19 pandemic will impact our business will depend on future developments, which are highly uncertain and cannot be predicted, such as the continued geographic spread of the disease, the duration of the pandemic, the emergence and spread of variants, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease and to address its impact, including on financial markets or otherwise. As the COVID-19 pandemic continues, we could experience other disruptions that could severely impact our business, current and planned clinical trials and preclinical studies, including:

- inability of our management to travel in connection with establishing partnerships and collaborations;
- delays in receiving the supplies, materials and services needed to conduct preclinical studies and clinical trials;
- disruption of our access to capital in the global financial markets;
- delays or difficulties in enrolling patients in our Phase 1 clinical trial of RT-102 and our future planned clinical trials of our product candidates;
- delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of clinical trials;
- interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers and others or interruption of clinical trial subject visits and study procedures, which may impact the integrity of subject data and clinical study endpoints;
- limitations in resources, including our employees, that would otherwise be focused on the conduct of our business or our current or planned preclinical studies or clinical trials, including because of sickness, the desire to avoid contact with large groups of people or restrictions on movement or access to our facility as a result of government-imposed “shelter in place” or similar working restrictions;
- interruptions or delays in the operations of the FDA or comparable foreign regulatory authorities, which may impact review and approval timelines;
- changes in regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs or require us to discontinue clinical trials altogether;
- interruptions or delays to our pipeline and research programs; and
- delays in necessary interactions with regulators, ethics committees and other important agencies and contractors due to limitations in employee resources or furlough of government or contractor personnel.

Further, as a result of the COVID-19 pandemic, the extent and length of which is uncertain, we may be required to develop and implement additional clinical trial policies and procedures designed to help protect trial participants from the COVID-19 virus, which may include using telemedicine visits, remote monitoring of patients and clinical sites, and measures to ensure that data from clinical trials that may be disrupted as a result of the pandemic are collected pursuant to the trial protocol and consistent with GCPs, with any material protocol deviation reviewed and approved by the site IRB. Patients who may miss scheduled appointments, any interruption in trial drug supply, or other consequence that may result in incomplete data being generated during a trial as a result of the pandemic must be adequately documented and justified. For example, on March 18, 2020, the FDA issued a guidance on conducting clinical trials during the pandemic, which describe a number of considerations for sponsors of clinical trials impacted by the pandemic, including the requirement to include in the clinical trial report (or as a separate document) contingency measures implemented to manage the trial, and any disruption of the trial as a result of the COVID-19 pandemic; a list of all trial participants

affected by the COVID-19-pandemic related trial disruption by unique subject identifier and by investigational site, and a description of how the individual's participation was altered; and analyses and corresponding discussions that address the impact of implemented contingency measures (e.g., participant discontinuation from investigational product and/or trial, alternative procedures used to collect critical safety and/or efficacy data) on the safety and efficacy results reported for the trial.

Further, the COVID-19 pandemic may impact patient enrollment in our planned future Phase 1 clinical trials. In particular, some sites may delay enrollment to focus on, and direct resources to, COVID-19, while at other sites, patients may choose not to enroll or continue participating in the clinical trial as a result of the pandemic. Potential patients in our planned clinical trials may choose to not enroll, not participate in follow-up clinical visits, or drop out of the trial as a precaution against contracting COVID-19. Further, some patients may not be able or willing to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services.

Additionally, the demand for vaccines and COVID-19 treatments may make it more difficult to obtain materials or manufacturing slots for the products needed for our planned clinical trials, which could lead to delays in these trials.

The spread of COVID-19 and actions taken to reduce its spread may also materially affect us economically. While the potential economic impact brought by, and the duration of, the COVID-19 pandemic may be difficult to assess or predict, there could be a significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity and financial position. In addition, the trading prices for other companies have been highly volatile as a result of the COVID-19 pandemic. As a result, we may face difficulties raising capital through sales of our Class A common stock or such sales may be on unfavorable terms.

While the extent of the impact of the COVID-19 pandemic on our business and financial results is uncertain, a continued and prolonged public health crisis such as the COVID-19 pandemic could have a material negative impact on our business, financial condition, and operating results. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks described in this "Risk Factors" section.

We are subject to stringent and changing obligations related to data privacy and security. Our actual or perceived failure to comply with such obligations could lead to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse business consequences.

In the ordinary course of business, we process personal data and other sensitive information, including proprietary and confidential business data, trade secrets, intellectual property, data we collect about trial participants in connection with clinical trials, and sensitive third-party data. Our data processing activities may subject us to numerous data privacy and security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contracts, and other obligations that govern the processing of personal data by us and on our behalf.

In the United States, federal, state, and local governments have enacted numerous data privacy and security laws, including data breach notification laws, personal data privacy laws, and consumer protection laws. For example, HIPAA, as amended by HITECH, imposes specific requirements relating to the privacy, security, and transmission of individually identifiable health information. As another example, the CCPA imposes obligations on covered businesses. These obligations include, but are not limited to, providing specific disclosures in privacy notices and affording California residents certain rights related to their personal data. The CCPA allows for statutory fines for noncompliance (up to $7,500 per violation). Although the CCPA exempts some data processed in the context of clinical trials, the CCPA may increase compliance costs and potential liability with respect to other personal data we may maintain about California residents. In addition, it is anticipated that the CPRA, effective January 1, 2023, will expand the CCPA. The CPRA establishes a new California Privacy Protection Agency to implement and enforce the CPRA, which could increase the risk of enforcement. Other states have enacted data privacy laws. For example, Virginia passed the Consumer Data Protection Act, and Colorado passed the Colorado Privacy Act, both of which become effective in 2023. In addition, data privacy and security laws have been proposed at the federal, state, and local levels in recent years, which could further complicate compliance efforts.

Outside the United States, an increasing number of laws, regulations, and industry standards apply to data privacy and security. For example, the EU GDPR, the UK GDPR and China's Personal Information Protection Law ("PIPL"), impose strict requirements for processing personal data. For example, under the EU GDPR, government regulators may impose temporary or definitive bans on data processing, as well as fines of up to 20 million euros or 4% of annual global revenue, whichever is greater. Further, individuals may initiate litigation related to processing of their personal data. We conduct clinical trials in Australia, work with companies and vendors in Asia and may be subject to new and emerging data privacy regimes in Asia, including China's PIPL, Japan's Act on the Protection of Personal Information, and Singapore's Personal Data Protection Act.

Certain jurisdictions have enacted data localization laws and cross-border personal data transfer laws, which could make it more difficult to transfer information across jurisdictions (such as transferring or receiving personal data that originates in the EU or in

other foreign jurisdictions). Existing mechanisms that facilitate cross-border personal data transfers may change or be invalidated. For example, absent appropriate safeguards or other circumstances, the EU GDPR generally restricts the transfer of personal data to countries outside of the EEA that the European Commission does not consider to provide an adequate level of data privacy and security, such as the United States. The European Commission released a set of "Standard Contractual Clauses" ("SCCs") that are designed to be a valid mechanism to facilitate personal data transfers out of the EEA to these jurisdictions. Currently, these Standard Contractual Clauses are a valid mechanism to transfer personal data outside of the EEA, but there exists some uncertainty regarding whether the SCCs will remain a valid mechanism. Additionally, the SCCs impose additional compliance burdens, such as conducting transfer impact assessments to determine whether additional security measures are necessary to protect the at-issue personal data. In addition, Switzerland and the United Kingdom similarly restrict personal data transfers outside of those jurisdictions to countries such as the United States that do not provide an adequate level of personal data protection, and certain countries outside Europe (e.g., Russia, China, Brazil) have also passed or are considering laws requiring local data residency or otherwise impeding the transfer of personal data across borders, any of which could increase the cost and complexity of doing business.

If we cannot implement a valid compliance mechanism for cross-border data transfers, we may face increased exposure to regulatory actions, substantial fines, and injunctions against processing or transferring personal data from Europe or other foreign jurisdictions. The inability to import personal data to the United States could significantly and negatively impact our business operations, including by limiting our ability to conduct clinical trial activities in Europe and elsewhere; limiting our ability to collaborate with parties that are subject to such cross-border data transfer or localization laws; or requiring us to increase our personal data processing capabilities and infrastructure in foreign jurisdictions at significant expense.

In addition, privacy advocates and industry groups have proposed, and may propose, standards with which we are legally or contractually bound to comply.

Our obligations related to data privacy and security are quickly changing in an increasingly stringent fashion, creating some uncertainty as to the effective future legal framework. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires significant resources and may necessitate changes to our information technologies, systems, and practices and to those of any third parties that process personal data on our behalf. Although we endeavor to comply with all applicable data privacy and security obligations, we may at times fail (or be perceived to have failed) to do so. Moreover, despite our efforts, our personnel or third parties upon whom we rely may fail to comply with such obligations, which could negatively impact our business operations and compliance posture. For example, any failure by a third-party processor to comply with applicable law, regulations, or contractual obligations could result in adverse effects, including inability to or interruption in our ability to operate our business and proceedings against us by governmental entities or others.

If we fail, or are perceived to have failed, to address or comply with data privacy and security obligations, we could face significant consequences. These consequences may include, but are not limited to, government enforcement actions (e.g., investigations, fines, penalties, audits, inspections, and similar); litigation (including class-related claims); additional reporting requirements and/or oversight; bans on processing personal data; and orders to destroy or not use personal data.

Any of these events could have a material adverse effect on our reputation, business, or financial condition, including but not limited to: interruptions or stoppages in our business operations (including, as relevant, clinical trials); inability to process personal data or to operate in certain jurisdictions; limited ability to develop or commercialize our products; expenditure of time and resources to defend any claim or inquiry; adverse publicity; or revision or restructuring of our operations.

If our internal technology systems or sensitive information, or those used by our third-party collaborators or other contractors or consultants, are or were compromised, we could experience adverse consequences resulting from such compromise, including but not limited to regulatory investigations or actions; litigation; fines and penalties; disruptions of our business operations; reputational harm; loss of revenue or profits; loss of customers or sales; and other adverse consequences.

In the ordinary course of our business, we may process sensitive information. We may rely upon third-party service providers and technologies to operate critical business systems to process sensitive information in a variety of contexts, including, without limitation, third-party providers of cloud-based infrastructure, encryption and authentication technology, employee email, content delivery to customers, clinical trials and other functions. Our ability to monitor these third parties' information security practices is limited, and these third parties may not have adequate information security measures in place. We may share or receive sensitive information with or from third parties.

Cyberattacks, malicious internet-based activity, and online and offline fraud are prevalent and continue to increase. These threats come from a variety of sources, including traditional computer "hackers," threat actors, personnel (such as through theft or misuse), sophisticated nation states, and nation-state-supported actors. Some actors now engage and are expected to continue to engage in cyber-attacks, including without limitation nation-state actors for geopolitical reasons and in conjunction with military

conflicts and defense activities. During times of war and other major conflicts, we and the third parties upon which we rely may be vulnerable to a heightened risk of these attacks, including cyber-attacks, that could materially disrupt our systems and operations, supply chain, and ability to produce, develop, test and distribute our capsules, product candidates, and other goods and services. . We and the third parties upon which we rely may be subject to a variety of evolving threats, including but not limited to social-engineering attacks (including through phishing attacks), malicious code (such as viruses and worms), malware (including as a result of advanced persistent threat intrusions), denial-of-service attacks (such as credential stuffing), personnel misconduct or error, ransomware attacks, supply-chain attacks, software bugs, server malfunctions, software or hardware failures, loss of data or other information technology assets, adware, telecommunications failures, earthquakes, fires, floods, and other similar threats.

Ransomware attacks, including by organized criminal threat actors, nation-states, and nation-state-supported actors, are becoming increasingly prevalent and severe and can lead to significant interruptions in our operations, loss of data and income, reputational harm, and diversion of funds. Extortion payments may alleviate the negative impact of a ransomware attack, but we may be unwilling or unable to make such payments due to, for example, applicable laws or regulations prohibiting such payments. Similarly, supply-chain attacks have increased in frequency and severity, and we cannot guarantee that third parties and infrastructure in our supply chain or our third-party partners' supply chains have not been compromised or that they do not contain exploitable defects or bugs that could result in a breach of or disruption to our information technology systems or the third-party information technology systems that support us and our services. The COVID-19 pandemic and our remote workforce poses increased risks to our information technology systems and data, as more of our employees work from home, utilizing network connections outside our premises. Future or past business transactions (such as acquisitions or integrations) could also expose us to additional cybersecurity risks and vulnerabilities, as our systems could be negatively affected by vulnerabilities present in acquired or integrated entities' systems and technologies.

Despite the implementation of security and back-up measures, our internal computer, server, and other information technology systems as well as those of our third-party collaborators, consultants, contractors, suppliers, and service providers, have and may continue to be vulnerable to the previously identified or similar threats, any of which could cause a security incident or other interruption.. A security incident or other interruption could result in unauthorized access to, use or disclosure of, corruption of, or loss of sensitive, and/or proprietary information, including personal data and health-related information, and could subject us to significant liabilities and regulatory and enforcement actions, and reputational damage. A security incident or other interruption could disrupt our ability (and that of third parties upon whom we rely) to provide our products. For example, the loss of clinical trial data from completed or ongoing clinical trials could result in delays in any regulatory approval or clearance efforts and significantly increase our costs to recover or reproduce the data, and subsequently commercialize the product. Additionally, theft of our intellectual property or proprietary business information could require substantial expenditures to remedy.

We may expend significant resources or modify our business activities (including our clinical trial activities) to try to protect against security incidents. Certain data privacy and security obligations may require us to implement and maintain specific security measures, industry-standard or reasonable security measures to protect our information technology systems and sensitive information.

While we have implemented security measures designed to protect against security incidents, there can be no assurance that these measures will be effective. We may be unable in the future to detect vulnerabilities in our information technology systems because such threats and techniques change frequently, are often sophisticated in nature, and may not be detected until after a security incident has occurred. Despite our efforts to identify and address vulnerabilities, if any, in our information technology systems (including our products), our efforts may not be successful. Further, we may experience delays in developing and deploying remedial measures designed to address any such identified vulnerabilities.

If we or our third-party collaborators, consultants, contractors, suppliers, or service providers were to suffer a security incident, for example, that resulted in the unauthorized access to or use or disclosure of personal data or health information, we may have to notify consumers, partners, collaborators, government authorities, and the media. Such disclosures are costly, and the disclosures or the failure to comply with such requirements could lead to adverse consequences. Additionally, if we or our third party collaborators, consultants, contractors, suppliers, or service providers experience a security incident or are perceived to have experienced a security incident, we may be subject to investigations, civil penalties, administrative and enforcement actions, and litigation, any of which could harm our business and reputation. Likewise, we rely on our third-party research institution collaborators and other third parties to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security incident were to result in a loss of, or damage to, our data or systems, or inappropriate or unauthorized access to or disclosure or use of confidential, proprietary, or other sensitive, personal, or health information, we could incur liability and suffer reputational harm, and the development and commercialization of the RaniPill capsule and our products could be delayed.

Our contracts may not contain limitations of liability, and even where they do, there can be no assurance that limitations of liability in our contracts are sufficient to protect us from liabilities, damages, or claims related to our data privacy and security

obligations. We cannot be sure that our insurance coverage will be adequate or sufficient to protect us from or to mitigate liabilities arising out of our data privacy and security practices, or that it will be available on commercially reasonable terms or at all, or that such coverage will pay future claims.

Risks Related to Our Intellectual Property

Our commercial success may depend in part on our ability to build and maintain our intellectual property portfolio.

Our commercial success may depend in part, and perhaps in large part, on having a strong portfolio of intellectual property rights globally to prevent others from copying our products. We rely on a combination of contractual provisions, patent rights, trademark rights, and trade secrets to protect our core technology and products. However, these legal measures may only afford limited protection. For example, we may not be able to obtain or maintain intellectual property rights that we believe are important to our business, or in a form that provides us with a competitive advantage.

Moreover, obtaining and maintaining intellectual property protection is expensive, and reduces the budget available for research, development, and other expenditures. We must balance the need for intellectual property protection against the need for furthering our development and commercialization activities, which may mean that aspects of our technology and methodology may not be protected by our intellectual property portfolio.

Where our intellectual property rights are insufficient to prevent or limit commercialization of competitive products in a jurisdiction, potential competitors might be able to enter or expand in a market more easily, which could have a material adverse effect on our business.

The following ways in which our intellectual property portfolio may be limited represent risks to our capability to reduce competition and thus risks to our business.

We may not be able to obtain sufficient patent coverage.

The process of applying for and obtaining a patent is considerably time consuming and expensive, and we may not have the resources to prepare, file, prosecute, or maintain all desirable patent applications and patents in all jurisdictions where protection may be commercially advantageous. It is also possible that we may fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them, or before others file patent applications covering our product candidates. Moreover, we might not have been the first to make the inventions for which we apply for patents and therefore not be entitled to a patent on such inventions.

Additionally, the scope of our patent coverage may not provide desired coverage for all aspects of our product candidates in all jurisdictions, and scope may differ between jurisdictions. For example, examination of each national or regional patent application is an independent proceeding; as a result, patent applications in the same family may issue with claims of different scope in various jurisdictions, or may even be refused in some or all jurisdictions. If we fail to achieve the desired coverage for all aspects of our product candidates, competitors may be able to copy our technology or design around our patents, and our business may be harmed.

Because the patent position of companies in our industry involves complex legal and factual questions, we cannot predict the validity and enforceability of our patents or provide any assurances that any of our patent applications will be found to be patentable, with certainty. Our issued patents may not provide us with any competitive advantages, may be held invalid or unenforceable as a result of legal challenges by third parties or could be circumvented. Our competitors may also independently develop processes, technologies or products similar to ours or design around or otherwise circumvent any patents issued to, or licensed by, us. Thus, any patents that we own or license from others may not provide adequate protection against competitors. Our pending patent applications, those we may file in the future or those we may license from third parties may not result in patents being issued. If these patents are issued, they may not provide us with proprietary protection or competitive advantages. After the completion of development and registration of our patents, third parties may still manufacture or market our products despite our patent protected rights. If the protection of our proprietary rights is inadequate to prevent use or appropriation by third parties, the value of our brand and other intangible assets may be diminished and competitors may be able to more effectively mimic our technology. If competitors were to mimic our technology, it may result in loss of sales and material litigation expenses. Such infringement of our patent protected rights is likely to cause us damage and lead to a reduction in the prices of our products, thereby reducing our anticipated profits.

We may also inadvertently lose patent assets by failing to follow agency procedures. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process and after a patent issues. Non-compliance with provisions of the various patent

agencies can result in the expiration or abandonment of a patent or patent application, resulting in partial or complete loss of associated patent rights in the relevant jurisdiction.

For example, periodic maintenance fees, renewal fees, and annuity fees must often be paid to the USPTO and various foreign governmental patent agencies over the lifetime of a patent and/or patent application. These maintenance and annuity fees for our patents and patent applications are handled by a third-party annuity provider. Any errors by the annuity provider, including but not limited to, incomplete patent information, missed payment instructions, or errors in fund transfers may cause granted patents to expire and pending patent applications to be deemed abandoned. If we are unable to timely pay the annuity provider for their services, they may cease to pay the maintenance and annuity fees, and our patents and applications may lapse and no longer be in force. Additional non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits and failure to properly legalize and submit formal documents within prescribed time limits. While an unintentional lapse of a patent or patent application can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. This may create opportunities for competitors to enter the market, which could hurt our competitive position and could impair our ability to successfully commercialize our product candidates in any indication for which they are approved. For these and other reasons, we cannot guarantee that our patents will provide a basis for an exclusive market for our commercially viable products, or will even provide us with any competitive advantage.

It is possible that defects of form in the preparation, filing or prosecution of our patents or patent applications may exist, or may arise in the future, for example with respect to proper priority claims, inventorship, claim scope or requests for patent term adjustments. If we fail to establish, maintain or protect such patent rights, they may be reduced or eliminated. If there are material defects in the form, preparation, prosecution or enforcement of our patents or patent applications, such patents may be invalid and/or unenforceable, and such applications may never result in valid, enforceable patents. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

We may not be able to obtain sufficient brand protection.

We may rely on a combination of trademarks, service marks, brand names, trade names, and trade dress, and in some cases pending applications for the same, to protect our brands, in an effort to distinguish our products from the products of our competitors. Some of these mechanisms are protectable under state, federal, and foreign trademark laws and regulations. Although limited protection is available without registration, it is preferable to register trademarks in jurisdictions where we may commercialize.

We have registered or applied to register several trademarks in the United States and many other jurisdictions globally. We cannot ensure that our pending trademark applications will be approved. During trademark registration proceedings, our applications may be rejected by the USPTO or foreign agencies, or may be opposed by third parties. Although we are given an opportunity to respond, we may be unable to overcome such rejections or oppositions. In addition, third parties may seek to cancel registered trademarks, and our trademarks may not survive such proceedings. In the event that our trademarks are finally rejected or successfully challenged, we could be forced to rebrand, which could result in loss of brand recognition and could require us to devote resources towards advertising and marketing with new branding.

Our existing trademarks, whether registered or unregistered, face additional hurdles which may have a material adverse effect on our business. For example: one or more of our current or future trademarks may become used by the public in a manner that the use of the trademark becomes generic and loses its trademark protection in one or more jurisdictions; competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion; and, if we are unable to establish name recognition based on our branding, then we may not be able to compete effectively. Any of the foregoing could have a material adverse effect on our competitiveness.

In addition, our competitors may infringe or otherwise violate our trademarks and we may not have adequate resources to enforce our trademarks.

Domain names are also important to our brand identity and commercialization efforts and we have many registered domain names. However, there are several dozens of top-level domains and more coming, and there are several trademarks or other names that we may wish to incorporate into domain names. The combination of domains and names that may be of interest to our business could number in the hundreds or the thousands. Further, many domain names of interest are already registered by a third party. Therefore, we will not be able to obtain each and every domain name that may be of interest to our business. There is a risk that a competitor or other third party could register a domain name that inhibits our ability to advertise, confuses our customers, or redirects our potential business to other companies.

Trademarks and domain names are intended, and in some cases required, to be used by their owners. In the absence of meaningful use, we may be forced to forfeit various ones of our trademarks and domain names.

Intellectual property law and regulation could affect the value of our intellectual property portfolio.

Interpretation of existing laws and regulations is uncertain and may depend on specific facts of a case. Therefore, we cannot be certain of the effectiveness of our intellectual property against third parties. Further, laws and regulations in general may not provide sufficient protection to prevent, or provide adequate remedy for, the infringement, use, violation or misappropriation of our patents, trademarks, data, technology and other intellectual property and services.

Moreover, changes in laws, or changes in interpretations of laws, may unpredictably weaken our ability to obtain, defend, or enforce our intellectual property rights. A weakened ability to obtain, defend, or enforce rights covering our proprietary technologies could materially and adversely affect our business prospects and financial condition. For example, the United States Supreme Court and the United States Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. The United States Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations, and there are other open questions under patent law that courts have yet to decisively address. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on actions by the United States Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce patents that we own or that we might obtain or license in the future. An inability to obtain, enforce, and defend patents covering our proprietary technologies would materially and adversely affect our business prospects and financial condition.

Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. Changes in patent laws and regulations in other countries or jurisdictions, changes in the governmental bodies that enforce them, or changes in how the relevant governmental authority enforces patent laws or regulations may weaken our ability to obtain new patents or to enforce patents that we own or may obtain in the future. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad.

We cannot predict interpretations of existing laws and regulations, future changes to laws or regulations, or changes in the interpretation of laws or regulations. Such changes could increase uncertainty with respect to the value of patents and trademarks once obtained.

Intellectual property rights do not provide complete protection for our business activities.

The combination of contractual provisions, confidentiality procedures, and intellectual property rights that we rely on to protect the proprietary aspects of our products, brands, technologies and data afford limited protection. The degree of protection is uncertain, and our intellectual property rights may not adequately protect our business or permit us to maintain our competitive advantage.

We may not be able to successfully commercialize our products prior to patent expiration.

Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or soon after such candidates are commercialized. The exclusivity period provided by a patent is limited; in the United States, if all maintenance fees are timely paid, the expiration of a patent is generally 20 years from its earliest claimed United States non-provisional filing date. Even if patents covering our future products are obtained, once the patent life has expired, we may be open to competition from competitive products entering the market and we may suffer a subsequent decline in market share and profits. Although there may be a possibility to extend the term of one or more of our patents through various laws and regulations, most of our patents will not be eligible for such term extension. An example of legislation providing patent term extension is the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments, and similar legislation in some foreign jurisdictions, which provides a patent term extension of up to five years for patent term lost during product development and the FDA regulatory review process.

Our intellectual property rights may not be effective against certain competitive products.

While we seek to protect our intellectual property rights in our expected significant markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our product candidates. Accordingly, our intellectual property position in various jurisdictions may be inadequate in posing an effective challenge to competitive products, and also may not be conducive to successfully commercializing our product candidates in such jurisdictions.

Further, it is quite possible that a competitor may duplicate portions of our technology, or may develop a similar or alternative technology, without infringing our intellectual property rights; or a competitor may offer similar, duplicative, or competitive products for sale in major commercial markets not covered by our intellectual property rights.

Some countries also have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, the patent owner may have limited remedies, which could materially diminish the value of such patents. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired. In addition, some countries limit the enforceability of patents against government agencies or government contractors.

In addition, the U.S. federal government retains certain rights in inventions produced with its financial assistance under the Bayh-Dole Act which could allow the government, in specified circumstances, to require a company to grant a license to a third party. We do not currently have intellectual property falling under these provisions. We cannot be sure that if we acquire intellectual property in the future it will be free from government rights or regulations pursuant to the Bayh-Dole Act. If, in the future, we own, co-own or license in technology which is critical to our business that is developed in whole or in part with federal funds subject to the Bayh-Dole Act, our ability to enforce or otherwise exploit patents covering such technology may be adversely affected.

Third parties may hold intellectual property rights that cover our product candidates.

Our intellectual property rights, including our patent rights, do not give us the right to practice our patented inventions. Third parties may have blocking patents that could prevent us from marketing our own products and practicing our own technology. In some cases, it may be advantageous to license or acquire such patents. However, we may be unable to do so on commercially reasonable terms, such as on terms that would allow us to make an appropriate return on our investment. In addition, companies that perceive us to be a competitor may be unwilling to transfer or license rights to us. Moreover, the licensing or acquisition of third-party intellectual property rights is a competitive area, and other companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider important to our business. Some such companies may have a competitive advantage over us due to their size, capital resources, clinical development stage, or commercialization capabilities.

If we are unable to successfully obtain or maintain rights to third-party intellectual property rights which we deem important to an aspect of our business, we may deem it to be in our best interests to forego further development of the relevant program or product candidate, which could have a material adverse effect on our business.

We are presently reliant upon an in-license with InCube Labs, LLC (“ICL”) to certain of ICL’s patent rights. Additional in-licenses with other third parties may be negotiated in the future. License agreements may impose fee, royalty, insurance, milestone, and other obligations on us. If we fail to comply with our obligations to a licensor, that licensor may have the right to terminate our license, in which event we might not be able to develop, manufacture or market any product that is covered by the intellectual property we in-license. Such an occurrence would materially adversely affect our business prospects.

Further, we are presently party to a Service Agreement with ICL effective January 1, 2021, as amended in March 2022 (as amended, the "Rani LLC-ICL Service Agreement"), pursuant to which Rani LLC and ICL agreed to provide personnel services to the other upon requests, and Rani LLC occupies certain facilities leased by ICL. Pursuant to the Rani LLC-ICL Service Agreement, we may engage ICL to perform development work on behalf of our company. We will wholly own intellectual property resulting from such development work only if it relates to the oral delivery of a biotherapeutic agent or sensor(the “Rani Field”), and was developed on our time and with our resources. All other resulting intellectual property will be wholly owned by ICL. ICL has agreed to exclusively license certain intellectual property to us for use solely within the Rani Field, but we may not obtain a license on favorable terms.

In addition, intellectual property rights that we in-license in the future may be sublicenses under intellectual property owned by third parties, in some cases through multiple tiers. The actions of our licensors may therefore affect our rights to use our sublicensed intellectual property, even if we are in compliance with all of the obligations under our sublicense agreements. Should our licensors or any of the upstream licensors fail to comply with their obligations under the agreements pursuant to which they obtain the rights that are sublicensed to us, or should such agreements be terminated or amended, or if we fail to comply with our development obligations under our license agreements when applicable, our ability to develop and commercialize our product candidates may be materially harmed.

If we do not control the prosecution, maintenance and enforcement of our in-licensed intellectual property, we will not be certain that the prosecution, maintenance and enforcement of the licensed intellectual property rights will be in a manner consistent with the best interests of our business.

Competitors could purchase our products and attempt to replicate or reverse engineer some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, or design around our patents, any of which could materially affect our business, and we may not be able to prevent or stop such actions from occurring.

Legal or administrative proceedings related to intellectual property could materially adversely affect our ability to commercialize our products and could result in significant expenditures of resources.

There are several types of legal or administrative proceedings in which we may become involved, such as the ones outlined below. Any proceeding, even those asserted against us without merit and even those where we prevail, may cause us to incur substantial costs, could place a significant strain on our financial resources, divert the attention of management from our core business, divert our employees from development activities, delay commercialization activities, and harm our reputation.

Others may challenge our intellectual property in administrative proceedings.

Administrative proceedings available for challenging issued patents include re-examination, post grant review, inter partes review, and similar proceedings in foreign jurisdictions as applicable. Such a proceeding could result in a patent being deemed invalid, or the scope of the patent coverage being reduced. Similarly, a registered trademark may be challenged, which could result in loss of the trademark, or reduction in the scope of the trademark. Patents and trademarks that we in-license may also be deemed invalid, or the scope reduced. Any of the foregoing outcomes could affect our ability to commercialize our products.

Our European patents are presently being challenged in Europe.

Our patent portfolio includes numerous issued European patents and pending European patent applications directed to various technical aspects of our business. The European Patent Office ("EPO") provides for an opposition proceeding that could result in revocation of or amendment to a patent. We are presently involved in opposition proceedings involving three of our European patents at the EPO, all of which opposition proceedings were asserted against us by Novo Nordisk AS.

The first of the three opposition proceedings involves European Patent No. 2515992, which is generally directed to an ingestible device. In July 2021, the EPO issued a decision resulting in an amendment to the claims of the patent. We subsequently filed a notice of appeal with the EPO Appeal Board and we are awaiting a final decision.

The second of the three opposition proceedings involves European Patent No. 2544668, which is generally directed to a therapeutic agent preparation. In December 2021, the EPO issued a decision resulting in revocation of the patent. We subsequently filed a notice of appeal with the EPO Appeal Board and we are awaiting a final decision.

The last of the three opposition proceedings involves European Patent No. 3461478, which is in the same family as European Patent No. 2515992 noted above. We recently submitted a response to the EPO and we are waiting to conduct oral proceedings before receiving a decision in that case.

While we own numerous issued European patents and pending European patent applications, including several in the same patent families as the three patents noted above and which are not currently the subject of opposition proceedings, there is a risk that one or more of our issued European patents will be revoked, or have its claims amended, through an opposition process. If this were to happen to one of our European patents, the corresponding national patent in each European country in which the European patent was validated would similarly be revoked or have its claims amended. We believe that our current patent portfolio provides us with meaningful protection of the RaniPill technology in Europe even apart from the three European patents which are the subject of the current opposition proceedings. However, if the current or future opposition proceedings result in the revocation or amendment of one or more of our European patents that cover important aspects of our technology, it could have a material adverse impact on our ability to commercialize in Europe and/or a material adverse impact on our ability to defend against potential competitors in Europe.

There is a risk that we may face additional oppositions in Europe as additional European patents grant.

We may assert challenges against others of infringement of our intellectual property.

We may determine that our competitors are infringing our patents or trademarks. In such case we could initiate infringement proceedings against them. Such proceedings are generally quite expensive in terms of money and employee time, and may be prohibitively expensive so that we may decide it not to be cost effective. Indeed, there can be no assurance that we will have sufficient financial or other resources to file and pursue all such proceedings. The monetary costs of such proceedings, the fact that they could last for years before they are concluded, and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings. We may also be hindered or prevented from enforcing our rights with respect to a government entity or instrumentality because of the doctrine of sovereign immunity.

Additionally, a legal proceeding might harm our business relationships, and thus we may determine that it is in our best interests not to pursue such course. Moreover, any claims we assert against perceived infringers or other third parties could provoke those parties to assert counterclaims against us alleging, for example, that we infringe their patents or other proprietary rights, that our patents or other proprietary rights are invalid or unenforceable, or both. In any patent infringement proceeding, there is a risk that a court will decide that a patent of ours is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. There is also a risk that, even if the validity of any patent is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our patent claims do not cover the invention. An adverse outcome in a litigation or proceeding involving one or more of our patents could limit our ability to assert those patents against those parties or other competitors, and may curtail or preclude our ability to exclude third parties from making or selling similar or competitive products. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are unenforceable, that the alleged infringing mark does not infringe our trademark rights or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this last instance, we could ultimately be forced to cease use of such trademarks. Any of these outcomes could adversely affect our competitive business position, financial condition and results of operations.

Even if our patents or other intellectual property are found to be valid and infringed, a court may refuse to grant injunctive relief against the infringer and instead grant us monetary damages and/or ongoing royalties. Such monetary compensation may be insufficient to adequately offset the damage to our business caused by the infringer's competition in the market and, thus, may not be commercially meaningful. However, we may not prevail in any legal challenge that we do initiate. Additionally, if a defendant were to prevail on invalidity of our asserted patents, we may lose some, and perhaps all, of the intellectual property protection on our product candidates, which could have a material adverse impact on our business.

Furthermore, because of the substantial amount of discovery that may be required in connection with intellectual property litigation, there is a risk that some of our proprietary information could be compromised by disclosure during litigation.

There could also be public announcements of the results of hearings, motions, or other interim proceedings or developments; if securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our stock.

We may be subject to challenges asserting infringement of intellectual property of a third party.

Our commercial success depends, in part, upon our ability to develop, manufacture, market and sell our products and use our proprietary technologies without infringing the intellectual property rights of third parties.

However, despite our efforts to avoid infringement, we may face infringement challenges by competitors, or from non-practicing entities which purchase intellectual property assets for the purpose of making assertions of infringement to extract settlements. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of merit. Even if we believe an infringement challenge to be without merit, a court could find infringement, which could have a negative impact on the commercial success of our current and future products. We do not know the nature of claims contained in unpublished patent applications around the world and it is not possible to know which countries patent applicants may choose for the extension of their filings under the Patent Cooperation Treaty. Accordingly, third parties may seek or may have already obtained patents that will limit, interfere with or eliminate our ability to make, use and sell our product candidates. Additionally, our products include components that we purchase from vendors, and may include components that are outside of our direct control. Vendors from whom we purchase components may not indemnify us if our products incorporating their components are accused of infringing a third-party's patent or trademark or of misappropriating a third-party's trade secret.

If we are found to infringe a third party's intellectual property rights, we could be found liable for monetary damages, including treble damages and attorneys' fees if we are found to have willfully infringed. In addition, we could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technology or product. In some cases, we could pursue a license to continue developing, manufacturing and commercializing our products and technology. However, we may not be able to obtain a license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments.

Further, we generally indemnify our customers with respect to infringement by our products of the proprietary rights of third parties. If third parties assert infringement challenges against our customers, these challenges may require us to initiate or defend litigation on behalf of our customers. If any of these challenges succeed or settle, we may be forced to pay damages or settlement payments on behalf of our customers or may be required to obtain licenses for the products they use. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers may be forced to stop using our products.

The cost to us of any infringement challenge, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of an infringement challenge more effectively because of their greater financial resources. In addition to absorbing significant financial resources, an infringement challenge may also consume management's time. Consequently, there is no assurance that we will be able to develop or commercialize a product candidate in line with our business objectives in the event of an infringement challenge.

Further, the outcome of any infringement challenge is subject to uncertainties that cannot be adequately quantified in advance, including the demeanor and credibility of witnesses and the identity of any adverse party. This is especially true in patent infringement cases that may turn on the testimony of experts as to technical facts upon which the experts may reasonably disagree.

We may be subject to challenges asserting misappropriation of intellectual property of a third party.

We employ or contract with individuals who were previously employed elsewhere, including at other biopharmaceutical companies such as our competitors or potential competitors. Some of these employees, consultants or contractors may have executed proprietary rights, non-disclosure, or non-competition agreements in connection with such previous employment or contracting. In addition, we use proprietary information and materials from third parties which may be subject to agreements that include restrictions on use or disclosure. Although we strive to ensure proper safeguards, we cannot guarantee strict compliance with such agreements, nor can we be sure that our employees, consultants and advisors do not use proprietary information, materials, or know-how of others in their work for us.

We may be subject to challenges that we or our employees, consultants, or contractors have inadvertently or otherwise used or disclosed proprietary information of our employees' former employers or other third parties. There is no guarantee of success in defending such challenges, and if we are not successful, we may be blocked from using the technology that is the subject of the misappropriation challenge.

We may be subject to challenges to the inventorship or ownership of our intellectual property.

We may in the future be subject to challenges by our former employees or consultants asserting an ownership right in our intellectual property, as a result of the work they performed on our behalf. Although we generally require all of our employees and consultants and any other partners or collaborators who have access to our proprietary know-how, information or technology to assign or grant rights to us regarding inventions related to our business, we cannot be certain that we have executed such agreements with all parties who may have contributed to our intellectual property, nor can we be certain that our agreements with such parties will be upheld in the face of a potential challenge, or that they will not be breached, for which we may not have an adequate remedy. If we fail in defending any such challenges, we may lose valuable intellectual property rights, including the loss of exclusive ownership of, or right to use, such intellectual property.

Additionally, we may be subject to a challenge from a third party challenging our ownership interest in intellectual property we regard as our own, based on assertions that our employees or consultants have breached an obligation to assign inventions to another employer, to a former employer, or to another person or entity. Litigation may be necessary to defend against any such a challenge. It may be necessary or we may desire to enter into a license to settle any such challenge; however, there can be no assurance that we would be able to obtain a license on commercially reasonable terms, if at all. If our defense to a challenge fails, in addition to paying monetary damages, a court could prohibit us from using technologies or features that are essential to our products, if such technologies or features are found to incorporate or be derived from the proprietary information of the former employer. An inability to incorporate technologies or features that are important or essential to our products may prevent us from selling our products.

Third parties may obtain our proprietary information, which could harm our business and competitive position.

If any of our proprietary information, including trade secrets and know-how, were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us and our competitive position would be harmed.

We seek to maintain the confidentiality of our proprietary information, relying heavily on confidentiality provisions that we have in agreements with our employees, consultants, collaborators and others upon the commencement of their relationship with us. However, we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our proprietary technology and processes and cannot guarantee that such agreements will not be breached. Moreover, these agreements can be difficult and costly to enforce or may not provide adequate remedies. We also seek to preserve the integrity and confidentiality of our data and other proprietary information by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these security measures and systems, agreements or security measures may be breached.

Detecting the disclosure or misappropriation of proprietary information and enforcing an assertion that a party illegally disclosed or misappropriated proprietary information is difficult, expensive and time-consuming, the outcome is unpredictable, there may not be an adequate remedy for breach, and many foreign countries do not have laws adequate to protect proprietary rights.

The theft or unauthorized use or publication of our proprietary information could reduce the differentiation of our products and harm our business, the value of our investment in development or business acquisitions could be reduced, and if a third party's proprietary information is disclosed we may face litigation by such third party. Any of the foregoing could materially and adversely affect our business and financial condition.

Risks Related to Our Organizational Structure

We are a holding company and our principal asset is our interest in Rani LLC. Accordingly, we will depend on distributions from Rani LLC to pay our taxes, expenses (including payments under the Tax Receivable Agreement) and dividends. Rani's ability to make such distributions may be subject to various limitations and restrictions.

We are a holding company and have no material assets other than our ownership of LLC Interests of Rani LLC. As such, we have no independent means of generating net sales or cash flow, and our ability to pay our taxes and operating expenses or declare and pay dividends in the future, if any, is dependent upon the financial results and cash flows of Rani LLC and its subsidiary and distributions we receive from Rani LLC. Rani LLC and its subsidiary may not generate sufficient cash flow to distribute funds to us and applicable state law and contractual restrictions, including negative covenants in our debt instruments, may not permit such distributions. In August 2021, in connection with the IPO and Organizational Transactions, we entered into a Tax Receivable Agreement with certain of the Continuing LLC Owners. See the risk factor below entitled "*The Tax Receivable Agreement with certain of the Continuing LLC Owners requires us to make cash payments to them in respect of certain benefits to which we may become entitled. In certain circumstances, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual tax benefits we realize."*

We anticipate that Rani LLC will continue to be treated as a partnership for U.S. federal income tax purposes and, as such, generally will not be subject to any entity-level U.S. federal income tax. Instead, taxable income will be allocated to holders of LLC Interests. Accordingly, we will incur income taxes on our allocable share of any net taxable income of Rani LLC and will also incur expenses related to our operations, including payments under the Tax Receivable Agreement, which we expect could be significant. Furthermore, our allocable share of Rani LLC's net taxable income will increase over time as the Continuing LLC Owners redeem or exchange their LLC Interests for shares of our Class A common stock.

We intend, as its managing member, to cause Rani LLC to make cash distributions to the owners of LLC Interests, including us, in an amount sufficient to (i) fund their or our tax obligations in respect of allocations of taxable income from Rani LLC and (ii) cover our operating expenses, including payments under the Tax Receivable Agreement. However, Rani LLC 's ability to make such distributions may be subject to various limitations and restrictions, such as restrictions on distributions that would either violate any contract or agreement to which Rani LLC is then a party, including debt agreements, or any applicable law, or that would have the effect of rendering Rani LLC insolvent. In addition, for taxable years beginning after December 31, 2017, liability for adjustments to a partnership's tax return can be imposed on the partnership itself in certain circumstances, absent an election to the contrary. Rani LLC could be subject to material liabilities pursuant to adjustments to its partnership tax returns if, for example, its calculations or allocations of taxable income or loss are incorrect, which also could limit its ability to make distributions to us.

If we do not have sufficient funds to pay taxes or other liabilities or to fund our operations, we may have to borrow funds, which could adversely affect our liquidity and financial condition and subject us to various restrictions imposed by any such lenders. To the extent that we are unable to make payments under the Tax Receivable Agreement for any reason, such payments generally will be deferred and will accrue interest until paid; provided, however, that nonpayment for a specified period may constitute a material breach of a material obligation under the Tax Receivable Agreement and therefore accelerate payments due under the Tax Receivable Agreement. In addition, if Rani LLC does not have sufficient funds to make distributions, our ability to declare and pay cash dividends will also be restricted or impaired.

Rani LLC may make distributions of cash to us substantially in excess of the amounts we use to make distributions to our stockholders and pay our expenses (including our taxes and payments under the Tax Receivable Agreement). To the extent we do not distribute such excess cash as dividends on our Class A common stock, the holders of units of Rani LLC would benefit from any value attributable to such cash as a result of their ownership of Class A common stock upon an exchange or redemption of their units of Rani LLC.

We will receive a portion of any distributions made by Rani LLC. Any cash received from such distributions will first be used by us to satisfy any tax liability and then to make any payments required under the Tax Receivable Agreement. Subject to having available cash and subject to limitations imposed by applicable law and contractual restrictions (including pursuant to our debt

instruments), the Rani LLC operating agreement requires Rani LLC to make certain distributions to us and the Continuing LLC Owners, pro rata, to facilitate the payment of taxes with respect to the income of Rani LLC that is allocated to us and them. These distributions are based on an assumed tax rate, and to the extent the distributions we receive exceed the amounts we actually require to pay taxes, Tax Receivable Agreement payments, and other expenses, we will not be required to distribute such excess cash. Our board of directors may, in its sole discretion, choose to use such excess cash for any purpose, including (i) to make distributions to the holders of our Class A common stock, (ii) to acquire additional newly issued LLC Interests, and/or (iii) to repurchase outstanding shares of our Class A common stock. Unless and until our board of directors chooses, in its sole discretion, to declare a distribution, we will have no obligation to distribute such cash (or other available cash other than any declared dividend) to our stockholders.

No adjustments to the redemption or exchange ratio of LLC Interests for shares of our Class A common stock will be made as a result of either (i) any cash distribution by us or (ii) any cash that we retain and do not distribute to our stockholders. To the extent we do not distribute such cash as dividends on our Class A common stock and instead, for example, hold such cash balances, buy additional LLC Interests or lend them to Rani LLC, this may result in shares of our Class A common stock increasing in value relative to the LLC Interests. The holders of LLC Interests may benefit from any value attributable to such cash balances if they acquire shares of Class A common stock in redemption of or exchange for their LLC Interests or if we acquire additional LLC Interests (whether from Rani LLC or from holders of LLC Interests) at a price based on the market price of our Class A common stock at the time.

The Tax Receivable Agreement with certain of the Continuing LLC Owners requires us to make cash payments to them in respect of certain benefits to which we may become entitled. In certain circumstances, payments under the Tax Receivable Agreement may be accelerated and/or significantly exceed the actual tax benefits we realize.

We are a party to the Tax Receivable Agreement with certain of the Continuing LLC Owners. Under the Tax Receivable Agreement, we will be required to make cash payments to certain of the Continuing LLC Owners equal to 85% of the tax benefits, if any, that we are deemed to realize (calculated using certain assumptions) as a result of (i) increases in the tax basis of assets of Rani LLC resulting from (a) any future redemptions or exchanges of LLC Interests and (b) payments under the Tax Receivable Agreement and (ii) certain other tax benefits arising from payments under the Tax Receivable Agreement. While the actual amount and timing of any payments under the Tax Receivable Agreement, will vary depending upon a number of factors, including the timing of exchanges, the price of shares of our Class A common stock at the time of the redemption or exchange, the extent to which such redemptions or exchanges are taxable, future tax rates, and the amount and timing of our taxable income (prior to taking into account the tax depreciation or amortization deductions arising from the basis adjustments), we expect that, as a result of the size of the increases in the tax basis of the tangible and intangible assets of Rani LLC attributable to our interests in Rani LLC, during the expected term of the Tax Receivable Agreement, the payments that we may make to certain of the Continuing LLC Owners could be significant. See the section titled "*Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Source of Liquidity*" for further information.

Payments under the Tax Receivable Agreement will be based on the tax reporting positions that we determine, and the Internal Revenue Service ("IRS"), or another tax authority may challenge all or part of the tax basis increases, as well as other related tax positions we take, and a court could sustain such challenge. The Continuing LLC Owners who are parties to the Tax Receivable Agreement will not reimburse us for any payments previously made under the Tax Receivable Agreement if such basis increases or other benefits are subsequently disallowed, except that any excess payments made by us to the Continuing LLC Owners under the Tax Receivable Agreement will be netted against future payments that we might otherwise be required to make to the Continuing LLC Owners under the Tax Receivable Agreement. However, a challenge to any tax benefits initially claimed by us may not arise for a number of years following the initial time of such payment or, even if challenged early, such excess cash payment may be greater than the amount of future cash payments that we might otherwise be required to make under the terms of the Tax Receivable Agreement and, as a result, there might not be sufficient future cash payments against which the prior payments can be fully netted. The applicable U.S. federal income tax rules are complex and factual in nature, and there can be no assurance that the IRS or a court will not disagree with our tax reporting positions. Therefore, payments could be made under the Tax Receivable Agreement in excess of the tax savings that we realize in respect of the tax attributes with respect to the Continuing LLC Owners that are the subject of the Tax Receivable Agreement.

In addition, the Tax Receivable Agreement provides that, upon certain mergers, asset sales or other forms of business combination or certain other changes of control our (or our successor's) obligations with respect to tax benefits would be based on certain assumptions, including that we (or our successor) would have sufficient taxable income to utilize the benefits arising from the increased tax deductions and tax basis and other benefits covered by the Tax Receivable Agreement. Consequently, it is possible, in these circumstances, that the actual cash tax savings realized by us may be significantly less than the corresponding Tax Receivable Agreement payments. Our accelerated payment obligations and/or assumptions adopted under the Tax Receivable Agreement in the case of a change of control may impair our ability to consummate a change of control transaction or negatively impact the value received by owners of our Class A common stock in a change of control transaction.

If we were deemed to be an investment company under the 1940 Act as a result of our ownership of Rani LLC, applicable restrictions could make it impractical for us to continue our business as contemplated and could adversely affect our business, results of operations and financial condition.

Under Sections 3(a)(1)(A) and (C) of the 1940 Act, a company generally will be deemed to be an "investment company" for purposes of the 1940 Act if (i) it is, or holds itself out as being, engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities or (ii) it engages, or proposes to engage, in the business of investing, reinvesting, owning, holding or trading in securities and it owns or proposes to acquire investment securities having a value exceeding 40% of the value of its total assets (exclusive of United States government securities and cash items) on an unconsolidated basis. We do not believe that we are an "investment company," as such term is defined in either of those sections of the 1940 Act.

As the sole managing member of Rani LLC, we will control and operate Rani LLC. On that basis, we believe that our interest in Rani LLC is not an "investment security" as that term is used in the 1940 Act. However, if we were to cease participation in the management of Rani LLC, our interest in Rani LLC could be deemed an "investment security" for purposes of the 1940 Act.

We and Rani LLC intend to conduct our operations so that we will not be deemed an investment company. However, if we were to be deemed an investment company, restrictions imposed by the 1940 Act, including limitations on our capital structure and our ability to transact with affiliates, could make it impractical for us to continue our business as contemplated and could adversely affect our business, results of operations and financial condition.

ICL currently supports certain of our general and administrative corporate functions and we occupy space within facilities owned or leased by ICL pursuant to service agreements. If we were required to replicate or replace these services sooner than planned or if one or both of the service agreements is terminated, our operations could be adversely affected.

Pursuant to the Rani LLC-ICL Service Agreement, ICL provides us certain general and administrative corporate support services. In addition, pursuant to the Rani LLC-ICL Service Agreement and a separate service agreement dated January 1, 2021 between RMS and ICL (the "RMS-ICL Service Agreement"), we sublease from ICL the office, laboratory and manufacturing space used for our operations ("Occupancy Services").

Pursuant to the Rani LLC-ICL Service Agreement, we will wholly own intellectual property resulting from ICL's development work that relates only to the oral delivery of sensors, small molecule drugs or biologic drugs and was developed by our team and using our resources. ICL has agreed to exclusively license certain intellectual property to us for use solely within the field of oral delivery of sensors, small molecule drugs and biologic drugs, but we may not obtain a license on favorable terms.

The Rani LLC-ICL Service Agreement will automatically renew for successive one-year terms unless sooner terminated by either party. Termination of individual services under the Rani LLC-ICL Service Agreement or RMS-ICL Service Agreement requires 60 days' notice, and termination of Occupancy Services under the Rani LLC-ICL Service Agreement or RMS-ICL Service Agreement requires six months notice; except that the Occupancy Services in Milpitas, California will expire in February 2023, with the potential for two annual renewals, subject to approval by ICL upon nine months' notice of renewal prior to the end of the lease term. In the event the Rani LLC-ICL Service Agreement or RMS-ICL Service Agreement is terminated by us or ICL, we will need to replicate or replace certain functions, systems, equipment or facilities to which we will no longer have the same access. Such changes may be costly to implement and disruptive to our business.

In addition, we may not be able to replace these services, systems, equipment or facilities or enter into appropriate third-party agreements therefor on terms and conditions, including cost, comparable to those that we receive from ICL under the Rani LLC-ICL Service Agreement or RMS-ICL Service Agreement, or in a time period that minimizes disruption to our operations. The loss of services or the use of systems, equipment or facilities under the Rani LLC-ICL Service Agreement or RMS-ICL Service Agreement or our inability to replace such services, systems, equipment or facilities in a timely or cost-effective manner could have an adverse effect on our operations and financial results.

We are controlled by certain of the Continuing LLC Owners, whose interests may differ from those of our public stockholders.

As of March 15, 2022, certain of the Continuing LLC Owners controlled more than 80% of the combined voting power of our common stock through their ownership of both Class A common stock and Class B common stock. These Continuing LLC Owners will, for the foreseeable future, have the ability to substantially influence us through their ownership position over corporate management and affairs, and will be able to control virtually all matters requiring stockholder approval. These Continuing LLC Owners are able to, subject to applicable law, elect a majority of the members of our board of directors and control actions to be taken by us and our board of directors, including amendments to our certificate of incorporation and bylaws and approval of significant corporate transactions, including mergers and sales of substantially all of our assets. The directors so elected will have the authority, subject to the terms of our indebtedness and applicable rules and regulations, to issue additional stock, implement stock repurchase

programs, declare dividends and make other decisions. It is possible that the interests of these Continuing LLC Owners may in some circumstances conflict with our interests and the interests of our other stockholders, including you. For example, these Continuing LLC Owners may have different tax positions from us, especially in light of the Tax Receivable Agreement, that could influence our decisions regarding whether and when to dispose of assets, whether and when to incur new or refinance existing indebtedness, and whether and when we should terminate the Tax Receivable Agreement and accelerate its obligations thereunder. In addition, the determination of future tax reporting positions and the structuring of future transactions may take into consideration these Continuing LLC Owners' tax or other considerations, which may differ from the considerations of us or our other stockholders.

The multi-class structure of our common stock may adversely affect the trading price or liquidity of our Class A common stock.

The existence of three classes of our common stock could result in less liquidity for any such class than if there were only one class of our capital stock. In addition, S&P Dow Jones and FTSE Russell have announced changes to their eligibility criteria for inclusion of shares of public companies on certain indices that will exclude companies with multiple classes of shares of common stock from being added to such indices. Several stockholder advisory firms also have announced their opposition to the use of multiple class structures. As a result, the multi-class structure of our common stock may prevent the inclusion of our Class A common stock in such indices and may cause stockholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices could result in a less active trading market for our Class A common stock. Any actions or publications by stockholder advisory firms critical of our corporate governance practices or capital structure could also adversely affect the value of our Class A common stock.

The multi-class structure of our common stock has the effect of concentrating voting control which will limit your ability to influence the outcome of important transactions, including a change in control.

Our Class B common stock has 10 votes per share, our Class A common stock has one vote per share and Class C common stock has no voting rights, except as required by law. As of March 15, 2022, holders of our outstanding Class B common stock collectively held more than 80% of the voting power of our outstanding capital stock. Because of the 10-to-1 voting ratio between our Class B common stock and Class A common stock, the holders of our Class B common stock collectively control a majority of the combined voting power of our capital stock and therefore are able to control all matters submitted to our stockholders for approval so long as the shares of our Class B common stock represent more than 9% of all outstanding shares of our Class A common stock and Class B common stock. These holders of our Class B common stock may also have interests that differ from other stockholders and may vote in a way which may be adverse to other stockholder interests. This concentrated control may have the effect of delaying, preventing or deterring a change in control of our company, could deprive our stockholders of an opportunity to receive a premium for their capital stock as part of a sale of our company and might ultimately affect the market price of our Class A common stock.

The exchange of Class A units for Class A common stock will have the effect, over time, of increasing the relative voting power of those holders of Class B common stock who retain their shares in the long term. If, for example, Mir Imran, together with his affiliates, retains a significant portion of his holdings of our Class B common stock for an extended period of time, he could control a significant portion of the voting power of our capital stock for the foreseeable future. As a board member, Mir Imran owes a fiduciary duty to our stockholders and must act in good faith and in a manner to be in the best interests of our stockholders. As a stockholder, Mir Imran is entitled to vote his shares in his own interests, which may not always be in the interests of our stockholders generally.

Risks Related to Our Class A Common Stock

We do not know whether an active, liquid and orderly trading market will develop for our common stock.

We only recently completed our IPO, so there is limited history regarding the trading of our Class A common stock. An active trading market for our Class A common stock may not develop or be sustained. The lack of an active market may impair stockholders' ability to sell their shares at the time or price they wish to sell them. In addition, as described further in these "Risk Factors," a substantial percentage of our Class A common stock will continue to be held by our executive officers and pre-IPO investors. As a result of these and other factors, stockholders may be unable to resell their shares of our Class A common stock at or above the initial public offering price. Further, an inactive market may also impair our ability to raise capital by selling shares of our Class A common stock and may impair our ability to enter into strategic collaborations or acquire companies or products by using our shares of Class A common stock as consideration.

Our stock price may be volatile and the value of our Class A common stock may decline.

The market price of our Class A common stock may be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control, including limited trading volume. In addition to the factors discussed in this "Risk Factors" section and elsewhere in this Annual Report on Form 10-K, these factors including:

- our ability to obtain and maintain regulatory approvals for our current or any of our future product candidates;
- changes in laws or regulations applicable to our current or any of our future product candidates;
- adverse developments concerning any of our third-party collaborators and suppliers;
- our inability to obtain adequate product supply for our current or any of our future product candidates or our inability to do so at acceptable prices; our ability to scale, optimize and expand automation of our manufacturing processes for our product candidates for the conduct of preclinical studies and clinical trials and, if approved, for successful commercialization;
- the degree and rate of physician and market adoption of our current or any of our future product candidates;
- announcements by us or our competitors of significant business developments, diagnostic technologies, acquisitions, or new offerings;
- negative publicity associated with issues related to our technology or our product candidates;
- our inability to establish collaborations, if needed;
- future sales of our Class A common stock or other securities, by us or our stockholders
- changes in senior management or key personnel;
- the trading volume of our Class A common stock;
- performance or news releases by other companies in our industry including about adverse developments related to safety, effectiveness, accuracy and usability of their products, reputational concerns, reimbursement coverage, regulatory compliance, and product recalls;
- general economic, regulatory and market conditions, including economic recessions or slowdowns;
- changes in the structure of healthcare payment systems;
- actual or anticipated fluctuations in our financial condition and results of operations, including as a result of anticipated or unanticipated demand based on seasonal factors;
- variance in our financial performance from expectations of securities analysts or investors;
- changes in our projected operating and financial results;
- developments or disputes concerning our intellectual property or other proprietary rights;
- significant lawsuits, including patent or stockholder litigation;
- general political and economic conditions, including war, terrorism and other international conflicts, such as the recent Russian invasion of Ukraine as well as continued and any new sanctions against Russia by, among others, the European Union and the Unites States, which restrict a wide range of trade and financial dealings with Russia and Russian parties, public health issues including health epidemics or pandemics, such as COVID-19; and
- other events or factors, many of which are beyond our control.

Broad market and industry fluctuations, as well as general economic, pandemic, political, regulatory, and market conditions, may negatively impact the market price of our Class A common stock. In addition, given the relatively small public float of shares of our Class A common stock on Nasdaq, the trading market for our shares may be subject to increased volatility. In the past, securities class action litigation has often been brought against companies that have experienced volatility or following a decline in the market price of its securities. This risk is especially relevant for us because medical device companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

We are a "controlled company" within the meaning of the Nasdaq rules and, as a result, qualify for, and may rely on, exemptions and relief from certain corporate governance requirements. If we rely on these exemptions, our stockholders will not have the same protections afforded to stockholders of companies that are subject to such requirements.

As of March 15, 2022, our executive Chairman, Mir Imran beneficially owned more than 80% of the combined voting power of our Class A and Class B common stock. As a result, we will continue to be a "controlled company" within the meaning of the Nasdaq corporate governance standards. Under these corporate governance standards, a company of which more than 50% of the voting power in the election of directors is held by an individual, group or another company is a "controlled company" and may elect not to comply with certain corporate governance requirements. For example, controlled companies are not required to have:

- a board that is composed of a majority of "independent directors," as defined under the Nasdaq rules;
- a compensation committee that is composed entirely of independent directors; and
- director nominations be made, or recommended to the full board of directors, by its independent directors, or by a nominations/governance committee that is composed entirely of independent directors.

While we do not intend to rely on the exemptions relating to being a "controlled company" within the meaning of the Nasdaq rules, we may utilize these exemptions for as long as we continue to qualify as a "controlled company." Accordingly, our stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance requirements of the Nasdaq. Investors may find our Class A common stock less attractive as a result of our reliance on these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

We may in the future engage in acquisitions, collaborations, or strategic partnerships, which may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities, and subject us to other risks.

We may engage in various acquisitions, collaborations, and strategic partnerships in the future, including licensing or acquiring complementary products, intellectual property rights, technologies, or businesses. Any acquisition, collaboration, or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- volatility with respect to the financial reporting related to such arrangements;
- assumption of indebtedness or contingent liabilities;
- issuance of our equity securities which would result in dilution to our stockholders;
- assimilation of operations, intellectual property, products, and product candidates of an acquired company, including difficulties associated with integrating new personnel;
- diversion of our management's attention from our existing product programs and initiatives in pursuing such an acquisition or strategic partnership;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;

- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and regulatory approvals; and

- our inability to generate revenue from acquired intellectual property, technology, and/or products sufficient to meet our objectives or even to offset the associated transaction and maintenance costs.

In addition, if we undertake such a transaction, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses, and acquire intangible assets that could result in significant future amortization expense.

Future sales and issuances of our Class A common stock in the public market could cause the market price of our Class A common stock to decline.

Sales and issuances of a substantial number of shares of our Class A common stock in the public market, or the perception that these sales might occur, could depress the market price of our Class A common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales and issuances may have on the prevailing market price of our Class A common stock.

Following our IPO, all of our executive officers and directors and the holders of substantially all of our equity securities were subject to lock-up agreements that restricted their ability to transfer shares of our Class A common stock, stock options and other securities convertible into, exchangeable for, or exercisable for our Class A common stock during the period ending on, and including, the 180th day after our IPO, subject to specified exceptions. The lock-up period has expired, and as a result all such shares are eligible for sale.

We have registered all of the shares of Class A common stock currently issuable upon exercise of outstanding stock options, and upon exercise or settlement of any options or other equity incentives and we intend to register all shares or such Class A common stock that we may grant in the future, for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market upon issuance as permitted by any applicable vesting requirements.

Continuing LLC Owners are entitled to rights with respect to the registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act.

Any sales of securities by the foregoing stockholders could have a material adverse effect on the trading price of our Class A common stock.

Our principal stockholders and management own a significant percentage of our stock and are able to exert significant control over matters subject to stockholder approval and may prevent other stockholders from influencing significant corporate decisions.

As of March 15, 2022, our named executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially held more than 60% of our outstanding stock, representing over 80% of our voting power. Therefore, these stockholders have substantial influence and may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This concentration of voting power could, among other things, delay or prevent an acquisition of our company on terms that other stockholders may desire, which in turn could depress our stock price and may prevent attempts by our stockholders to replace or remove the board of directors or management.

These stockholders, acting together, will be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors and any merger or other significant corporate transactions. The interests of this group of stockholders may not coincide with the interests of other stockholders.

We do not intend to pay dividends for the foreseeable future and, as a result, your ability to achieve a return on your investment will depend on appreciation in the price of our Class A common stock.

We have never declared or paid any cash dividends on our capital stock, and we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors and may be restricted by the terms of any then-current debt instruments. Accordingly, stockholders must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

We incur increased costs as a result of operating as a public company, and our management is required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

We incur significant legal, accounting and other expenses as a public company, including costs resulting from public company reporting obligations under the Exchange Act and regulations regarding corporate governance practices. The listing requirements of the Nasdaq require that we satisfy certain corporate governance requirements relating to director independence, distributing annual and interim reports, stockholder meetings, approvals and voting, soliciting proxies, conflicts of interest and a code of conduct. Our management and other personnel devote a substantial amount of time to ensure that we comply with all of these requirements, and we will likely need to hire additional accounting and financial staff with appropriate public company reporting experience and technical accounting knowledge. Moreover, the reporting requirements, rules and regulations will increase our legal and financial compliance costs and will make some activities more time consuming and costly. Any changes we make to comply with these obligations may not be sufficient to allow us to continue to satisfy our obligations as a public company on a timely basis, or at all. These reporting requirements, rules and regulations, coupled with the increase in potential litigation exposure associated with being a public company, could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors or board committees or to serve as executive officers, or to obtain certain types of insurance, including directors' and officers' insurance, on acceptable terms.

As a public company, and particularly after we are no longer an "emerging growth company," we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq and other applicable securities rules and regulations impose various requirements on public companies. Furthermore, the senior members of our management team do not have significant experience with operating a public company. As a result, our management and other personnel need to devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the timing of such costs. Accordingly, we expect to continue to incur operating losses for the foreseeable future and we may not achieve profitability in the future and that, if we do become profitable, we may not sustain profitability. Our failure to achieve and sustain profitability in the future will make it more difficult to finance our business and accomplish our strategic objectives, which would have a material adverse effect on our business, financial condition and results of operations and cause the market price of our Class A common stock to decline.

Provisions under Delaware law and California law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Under our amended and restated certificate of incorporation, we have elected not to be governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any holder of at least 15% of our capital stock for a period of three years following the date on which the stockholder acquired at least 15% of our common stock. Because our principal executive offices are located in California, the anti-takeover provisions of the California Corporations Code may apply to us under certain circumstances now or in the future.

We are an emerging growth company and a smaller reporting company and our compliance with the reduced reporting and disclosure requirements applicable to emerging growth companies and smaller reporting companies could make our Class A common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we expect to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including the auditor attestation requirements of Section 404 reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved and extended adoption period for accounting pronouncements.

We are also a "smaller reporting company," as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Investors may find our Class A common stock less attractive as a result of our reliance on these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could limit the market price of our Class A common stock and may prevent or frustrate attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- a requirement that special meetings of stockholders be called only by holders of at least 25% of the voting power of our Class A common stock and Class B common stock, voting together as a single class, the chairperson of the board of directors, the chief executive officer, or by a majority of the board of directors;
- advance notice requirements for stockholder proposals and nominations for election to our board of directors;
- a requirement that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds of all outstanding shares of our voting stock then entitled to vote in the election of directors;
- a requirement of approval of a majority of all outstanding shares of our voting stock to amend any bylaws by stockholder action or to amend specific provisions of our certificate of incorporation, with protective provisions in our certificate of incorporation requiring approval of a majority of the voting power of the Class B common stock then outstanding;
- the authority of the board of directors to issue preferred stock on terms determined by the board of directors without stockholder approval and which preferred stock may include rights superior to the rights of the holders of Class A common stock; and
- the authorization of three classes of common stock as described above.

Under our amended and restated certificate of incorporation, we have elected not to be governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business antitakeover provisions. Other provisions in our amended and restated certificate of incorporation and amended and restated bylaws, could make it more difficult for stockholders or potential acquirors to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer, or proxy contest involving our company. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing or cause us to take other corporate actions you desire. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our Class A common stock to decline.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States will be the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (1) any derivative action or proceeding brought on our behalf, (2) any action or proceeding asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, officers, or other employees to us or our stockholders, (3) any action or proceeding asserting a claim against us or any of our current or former directors, officers, or other employees, arising out of or pursuant to any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws, (4) any action or proceeding to interpret, apply, enforce, or determine the validity of our amended and restated certificate of incorporation or our amended and restated bylaws, (5) any action or proceeding as to which the Delaware General Corporation Law confers jurisdiction to the Court of Chancery of the State of Delaware, and (6) any action asserting a claim against us or any of our directors, officers, or other employees governed by the internal affairs doctrine, in all cases to the fullest extent permitted by law and subject to the court's having personal jurisdiction over the indispensable parties named as defendants.

These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation and our amended and restated bylaws further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, including all causes of action asserted against any defendant named in such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and the provisions may not be enforced by a court in those other jurisdictions.

These exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees and may discourage these types of lawsuits. Furthermore, the enforceability of similar choice of forum provisions in other companies' certificates of incorporation or bylaws has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find the exclusive forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving such action in other jurisdictions, all of which could seriously harm our business.

General Risk Factors

As a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting, and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in our company and, as a result, the value of our Class A common stock.

We are required, pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting for the year ending December 31, 2022, which is the year covered by the second annual report following the completion of our initial public offering. This assessment needs to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. In addition, we will be required to obtain attestation as to the effectiveness of our internal control over financial reporting by an independent registered public accounting firm in our first annual report required to be filed with the SEC following the date we are no longer an emerging growth company if we are not a non-accelerated filer at such time.

If we are unable to conclude that our internal control over financial reporting is effective, or if we or our independent registered public accounting firm determines we have a material weakness in our internal control over financial reporting, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our Class A common stock could decline, and we could be subject to sanctions or investigations by the SEC or comparable foreign regulatory authorities. Failure to remedy any material weakness or significant deficiency in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

The preparation of our financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. If our assumptions underlying our estimates and judgments relating to our critical accounting policies change or if actual circumstances differ from our assumptions, estimates or judgments, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

Business disruptions could seriously harm our business, financial condition, and results of operations.

Our operations, and those of our CROs, suppliers and other contractors and consultants, could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, public health pandemics or epidemics (including, for example, the ongoing COVID-19 pandemic), geopolitical events, including civil or political unrest (such as the ongoing conflict between Ukraine and Russia), terrorism, insurrection or war, and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

Our business and the business of our suppliers of APIs or drug substances and the raw materials or components for our RaniPill capsule could be materially and adversely affected by the risks, or the public perception of the risks, related to a pandemic or other health crisis, such as the recent outbreak of novel coronavirus (COVID-19). A significant outbreak of contagious diseases in the human population could result in a widespread health crisis that could adversely affect our planned operations. Such events could result in the complete or partial closure of one or more manufacturing facilities which could impact our supply of APIs, drug substances, and critical materials for manufacturing our RaniPill capsules. In addition, an outbreak or other business disruption near where our clinical trials occur, like the current Phase 1 clinical trial of RT-102 in Australia, could impact our ability to recruit subjects, delay our clinical trial, and could affect our ability to complete our clinical trials within the planned time periods. In addition, business disruptions of the kind noted above, including geopolitical events like the ongoing conflict between Ukraine and Russia, could impact economies and financial markets, resulting in an economic downturn and/or inflation that could impact our ability to raise capital, increase the costs of goods and services, cause us to have to de-prioritize or stop certain business activities, diminish potential partnering opportunities, and have an adverse effect on our results of operations.

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our results of operations and financial condition

We are or may be subject to taxes by the U.S. federal, state, local and foreign tax authorities, and our tax liabilities will be affected by the allocation of expenses to differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of equity-based compensation;
- changes in tax laws, regulations or interpretations thereof; or
- future earnings being lower than anticipated in countries where we have lower statutory tax rates and higher than anticipated earnings in countries where we have higher statutory tax rates.

In addition, we may be subject to audits of our income, sales and other transaction taxes by U.S. federal, state, local and foreign taxing authorities. Outcomes from these audits could adversely affect our business, results of operations and financial condition.

Our failure to meet Nasdaq's continued listing requirements could result in a delisting of our Class A common stock.

If we fail to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to delist our Class A common stock. Such a delisting would likely have a negative effect on the price of our Class A common stock and would impair a stockholder's ability to sell or purchase our Class A common stock when they wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our Class A common stock to become listed again, stabilize the market price or improve the liquidity of our Class A common stock, prevent our Class A common stock from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with the listing requirements of Nasdaq.

We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws and anti-money laundering laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to export control and import laws and regulations, including the United States Export Administration Regulations, United States Customs regulations, and various economic and trade sanctions regulations administered by the United States Treasury Department's Office of Foreign Assets Controls, and anti-corruption and anti-money laundering laws and regulations, including the Foreign Corrupt Practices Act, ("FCPA"), the United States domestic bribery statute contained in 18 U.S.C. § 201, the United States Travel Act, the USA PATRIOT Act, and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct or may in the future conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors and other third-party collaborators from authorizing, promising, offering, providing, soliciting or receiving, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties outside of the United States to sell our products internationally once we enter a commercialization phase, and/or to obtain necessary permits, licenses, patent registrations and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors and other third-party collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. In many foreign countries, particularly in countries with developing economies, it may be a local custom that businesses engage in practices that are prohibited by the FCPA or other applicable laws and regulations. To that end, our internal control policies and procedures and employee training and compliance programs designed to deter prohibited practices ultimately may not be effective in preventing our employees, contractors, business partners, intermediaries or agents from violating or circumventing our policies and/or the law. Responding to any enforcement action or related investigation may result in a significant diversion of management's attention and resources and significant defense costs and other professional fees. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

If securities or industry analysts do not publish research or publish unfavorable or inaccurate research about our business, our Class A common stock price and trading volume could decline.

Our stock price and trading volume will be heavily influenced by the way analysts and investors interpret our financial information and other disclosures. If securities or industry analysts do not publish research or reports about our business, delay publishing reports about our business or publish negative reports about our business, regardless of accuracy, our Class A common stock price and trading volume could decline.

The trading market for our Class A common stock will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. We expect that only a limited number of analysts will cover our company. If the number of analysts that cover us declines, demand for our Class A common stock could decrease and our Class A common stock price and trading volume may decline. Even if our Class A common stock is actively covered by analysts, we do not have any control over the analysts or the measures that analysts or investors may rely upon to forecast our future results. Over-reliance by analysts or investors on any particular metric to forecast our future results may result in forecasts that differ significantly from our own.

Regardless of accuracy, unfavorable interpretations of our financial information and other public disclosures could have a negative impact on our stock price. If our financial performance fails to meet analyst estimates, for any of the reasons discussed above or otherwise, or one or more of the analysts who cover us downgrade our Class A common stock or change their opinion of our Class A common stock, our stock price would likely decline.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters are currently located in San Jose, California. We lease approximately 55,000 square feet of office, research and development, production and manufacturing, and laboratory space in San Jose and Milpitas, California and San Antonio, Texas, pursuant to service agreements with ICL, a related party. The lease for the San Jose facility has a twelve month term that renews automatically on January 1st of each year for a successive twelve month period, subject to termination by either party upon a six months notice. Our lease for the Milpitas facility expires in February 2023. We have the option to renew the lease for two additional terms of twelve months each, subject to approval by ICL upon a nine months' notice of renewal prior to the end of the lease

term. Our San Antonio lease will continue until terminated by either party upon six months notice. If required, we believe that suitable additional or alternative space would be available in the future on commercially reasonable terms.

Item 3. Legal Proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information for Common Stock

Our Class A common stock is traded on the Nasdaq Stock Market LLC under the symbol “RANI.”

Dividend Policy

We have never declared or paid any dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying cash dividends in the foreseeable future. Any future determination to declare or pay dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions, capital requirements general business conditions and other factors that our board of directors may deem relevant. Our future ability to pay cash dividends on our capital stock may be limited by the terms of any future debt or preferred securities.

Stockholders

As of March 28, 2022, we had 230 holders of record of our Class A common stock and 26 holders of record of our Class B common stock. The actual number of stockholders of Class A common stock is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities. Shares of our Class B common stock are paired with LLC Units of Rani LLC and are held by Continuing LLC Owners. Shares of Class B common stock are not transferable independent of the LLC Units. Upon exchange of the LLC Units for Class A common stock, the corresponding shares of Class B common stock paired with such LLC Units are cancelled.

Securities Authorized for Issuance Under Equity Compensation Plans

Information about our equity compensation plans is incorporated herein by reference to Item 12 of Part III of this Annual Report on Form 10-K

Recent Sales of Unregistered Securities

During the year ended December 31, 2021, we did not issue or sell any unregistered securities other than as disclosed in our Quarterly Reports on Form 10-Q for the quarter ended June 30, 2021 and September 30, 2021.

Use of Proceeds from Registered Securities

On July 29, 2021, the SEC declared effective our Registration Statement on Form S-1 (File No. 333-257809), as amended, filed in connection with our IPO.

Our planned use of proceeds to advance our internal pipeline has changed from a range of approximately $45.0 million to $55.0 million to approximately $30.0 million to $40.0 million, and our planned use of proceeds to advance manufacturing scale-up and automation has changed from a range of approximately $25.0 million to $35.0 million to approximately $15.0 million to $25.0 million. Except as described, there has been no material change in the planned use of proceeds from our IPO as described in the Registration Statement.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following management's discussion and analysis of our consolidated financial condition and results of operations should be read in conjunction with, and is qualified in its entirety by reference to, our consolidated financial statements and the related notes and other information included elsewhere in this Annual Report on Form 10-K. This discussion and analysis contains forward-looking statements that involve risks and uncertainties which could cause our actual results to differ materially from those anticipated in these forward-looking statements, including, but not limited to, risks and uncertainties discussed under "Special Note Regarding Forward-Looking Statements," "Risk Factors" and in Part I and elsewhere in this Annual Report on Form 10-K.

Unless we state otherwise or the context otherwise requires, the terms "we," "us," "our," and "Rani" and similar references refer to Rani Therapeutics Holdings, Inc. and its consolidated subsidiaries.

Overview

We are a clinical stage biotherapeutics company focusing on advancing technologies to enable the administration of biologics orally, to provide patients, physicians, and healthcare systems with a convenient alternative to painful injections. We are advancing a portfolio of oral biologic therapeutics using our proprietary delivery technology.

We have developed and clinically tested a drug-agnostic oral delivery platform, the RaniPill capsule, which can deliver any drug, including large molecules such as peptides, proteins, and antibodies. The current RaniPill capsule can deliver up to a 3 mg dose of drug with high bioavailability. We are also developing a high-capacity version known as the RaniPill HC, which is in preclinical stage and which is intended to enable delivery of drug payloads up to 20 mg with high bioavailability. Our current RaniPill capsule is optimized to orally deliver a variety of biologic therapeutics, and we are advancing development of the RaniPill HC to address biologics with higher dosing requirements. Together, we believe that the current RaniPill capsule and RaniPill HC could enable us to deliver most biologics currently on the market via a convenient, oral daily dose.

Since our inception in 2012, we have devoted the majority of our resources to research and development, manufacturing automation and scaleup, and establishing our intellectual property portfolio. To date, we have financed our operations primarily through the initial public offering ("IPO"), private placements of preferred units, issuance of convertible promissory notes, and contract revenue generated from the evaluation agreements.

We do not have any products approved for sale, and we have not yet generated any revenue from sales of a commercial product. Our ability to generate product revenue sufficient to achieve profitability, if ever, will depend on the successful development of the RaniPill capsule, which we expect will take a number of years. Given our stage of development, we have not yet established a commercial organization or distribution capabilities, and we have no experience as a company in marketing drugs or a drug-delivery platform. When, and if, any of our product candidates are approved for commercialization, we plan to develop a commercialization infrastructure for those products in the United States, Europe, Asia, and potentially in certain other key markets. We may also rely on partnerships to provide commercialization infrastructure, including sales, marketing, and commercial distribution.

As is common with biotechnology companies, we rely on third-party suppliers for the supply of raw materials and active pharmaceutical ingredients ("APIs") and drug substances required for the production of our product candidates. In addition, we work with third parties to manufacture and develop biologics for inclusion in the current RaniPill capsule and RaniPill HC. Design work, prototyping and pilot manufacturing are performed in-house, and we have utilized third-party engineering firms to assist with the design of manufacturing lines that support our supply of the current RaniPill capsule and RaniPill HC. Certain of our suppliers of components and materials are single source suppliers. We believe our vertically integrated manufacturing strategy will offer significant advantages, including rapid product iteration, control over our product quality and the ability to rapidly scale our manufacturing capacity. This capability also allows us to develop future generations of products while maintaining the confidentiality of our intellectual property. Our vertically integrated manufacturing strategy will result in material future capital outlays and fixed costs related to constructing and operating a manufacturing facility. We have and plan to continue to invest in automated manufacturing production lines for the current RaniPill capsule and RaniPill HC. Those assets deemed to have an alternative future use have been capitalized as property and equipment while those projects related to our assets determined to not have an alternative future use have been expensed as research and development costs.

COVID-19 Business Impact

We are subject to risks and uncertainties as a result of the ongoing COVID-19 pandemic. We are continuing to closely monitor the impact of the COVID-19 pandemic on our business and have taken and continue to take proactive efforts to protect the health and safety of our patients, study investigators, clinical research staff and employees, and to maintain business continuity. The extent of the impact of the COVID-19 pandemic on our activities is highly uncertain and difficult to predict, as the response to the pandemic is ongoing and information continues to evolve. Capital markets and economies worldwide have been significantly

impacted by the COVID-19 pandemic and may be further impacted in the future. Such economic disruption could have a material adverse effect on our business. Policymakers around the globe have responded with fiscal policy actions to support the biotherapeutics industry and economy as a whole. The magnitude and overall effectiveness of these actions remains uncertain.

To date, we have not incurred impairment losses in the carrying values of our assets as a result of the pandemic; however, we have experienced delays and impacts to various parts of our business, including delays due to the unavailability of vendors or delays in their availability with respect to research and development activities due to high demand or disruption to their business, delays in certain shipments of materials for our manufacturing, increases in prices charged by third parties for goods and services due to additional processes or costs resulting from COVID-19 procedures, disruption to travel which affects our ability to establish and maintain business relationships, and disruption to employee work schedules due to direct and indirect effects of COVID-19 such as government shelter-in-place mandates. What may have once been considered short-term impacts of COVID-19 may now reflect permanent costs of doing business.

Our ability to raise additional funds may be adversely impacted by potential worsening global economic conditions and disruptions to and volatility in the credit and financial markets in the United States and worldwide, such as those resulting from the ongoing COVID-19 pandemic. Because of the numerous risks and uncertainties associated with product development, we are unable to predict the timing or amount of increased expenses or when or if we will be able to achieve or maintain profitability. Even if we are able to generate revenue from commercial product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and may be forced to reduce or terminate our operations.

The severity of the impact of the COVID-19 pandemic on our activities will depend on a number of factors, including, but not limited to, the duration and severity of the pandemic, including the severity of any additional periods of increases or spikes in the number of cases in the areas we operate and areas where our clinical trial sites are located; the development and spread of COVID-19 variants; the timing, extent, effectiveness and durability of COVID-19 vaccine programs or other treatments; and new or continuing travel and other restrictions and public health measures, such as social distancing, business closures or disruptions. Accordingly, the extent and severity of the impact on our existing and planned clinical trials and operations is uncertain and cannot be fully predicted. Our future results of operations and liquidity could be adversely impacted by delays in existing and planned clinical trials and difficulties in recruiting patients for these clinical trials, the ongoing impact on our operating activities and employees, and the ongoing impact of any initiatives or programs that we may undertake to address financial and operational challenges. As of the date of issuance of this Annual Report on Form 10-K, the extent to which the COVID-19 pandemic may materially impact our future financial condition, liquidity or results of operations is uncertain.

Organizational Transactions

Rani Therapeutics Holdings, Inc. (“Rani Holdings”) was incorporated in April 2021 and formed for the purpose of facilitating an IPO of its Class A common stock, and to facilitate certain organizational transactions (“Organizational Transactions”) and to operate the business of Rani Therapeutics, LLC (“Rani LLC”) and its consolidated subsidiary. In connection with the IPO, we established a holding company structure with Rani Holdings as the holding company and its principal asset being the Class A common units (“Class A Units”) of Rani LLC that it owns. As the sole managing member of Rani LLC, Rani Holdings operates and controls all of Rani LLC’s operations, and through Rani LLC and its subsidiary, conducts all of Rani LLC’s business and the financial results of Rani LLC and its consolidated subsidiary are included in the consolidated financial statements of Rani Holdings.

Rani LLC has been, and after the IPO continues to be, treated as a pass-through entity for U.S. federal and state income tax purposes and accordingly has not been subject to U.S. federal or state income tax. The wholly owned subsidiary of Rani LLC, Rani Management Services, Inc. (“RMS”), which was incorporated in 2019, is taxed as a corporation for U.S. federal and most applicable state, local income tax and foreign tax purposes. As a result of its ownership of interests in Rani LLC ("LLC Interests"), Rani Holdings is subject to U.S. federal, state and local income taxes with respect to its allocable share of any taxable income of Rani LLC and will be taxed at the prevailing corporate tax rates. In addition to tax expenses, we also incur expenses related to our operations and may be required to make payments under the Tax Receivable Agreement with certain of the individuals and entities that continue to hold interests in Rani LLC after the IPO (the "Continuing LLC Owners"). The Continuing LLC Owners are entitled to exchange, subject to the terms of the Rani LLC Agreement, the Class A Units they hold in Rani LLC, together with the shares they hold of our Class B common stock (together referred to as a "Paired Interest"), in return for shares of our Class A common stock on a one-for-one basis provided that, at our election, we may effect a direct exchange of such Class A common stock or make a cash payment equal to a volume weighted average market price of one share of Class A common stock for each Paired Interest redeemed. Any shares of Class B common stock will be cancelled on a one-for-one basis if, at the election of the Continuing LLC Owners, we redeem or exchange such Paired Interest pursuant to the terms of the Rani LLC Agreement. These exchanges and redemptions may result in increases in the tax basis of the assets of Rani LLC that otherwise would not have been available. Increases in tax basis resulting from such exchanges may reduce the amount of income tax that Rani Holdings would otherwise be required to pay in the future. This tax basis may also decrease the gains (or increase the losses) on future dispositions of certain assets to the extent tax basis

is allocated to those assets. Due to the uncertainty of various factors, we cannot estimate the likely tax benefits we will realize as a result of exchanges, and the resulting amounts we will likely pay out to the Continuing LLC Owners pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial in the event we are profitable.

Components of Results of Operations

Contract Revenue

To date, we have not generated any revenue from commercial product sales and do not expect to generate any revenue from the sale of commercial products in the foreseeable future. Our only revenue has been derived from evaluation agreements, which are recorded as contract revenue. As of December 31, 2021, we had no active evaluation agreements, and therefore we expect that our revenue for the next several years will be derived from any new agreements that we may enter into in the future.

Our ability to generate commercial product revenue and to become profitable will depend upon our ability to successfully develop, obtain regulatory approval for and commercialize the RaniPill capsule and RaniPill HC. Because of the numerous risks and uncertainties associated with product development, regulatory approval and commercialization, we are unable to predict the amount, timing or whether we will be able to obtain commercial product revenue.

Operating Expenses

Our operating expenses consisted of research and development and general and administrative activities.

Research and Development Expense

Research and development expense consists primarily of direct and indirect costs incurred in connection with our research and development activities to develop the RaniPill capsule and RaniPill HC. These expenses include:

External expenses, consisting of:

- expenses associated with contract research organizations ("CROs"), for managing and conducting clinical trials;
- expenses associated with laboratory supplies, drug material for clinical trials, developing and manufacturing of the RaniPill capsule, RaniPill HC and other materials;
- expenses associated with preclinical studies performed by third parties; and
- expenses associated with consulting, legal fees for patent matters, advisors, and other external services.

Internal expenses, consisting of:

- expenses including salaries, bonuses, equity-based compensation and benefits for personnel engaged in the research and development functions;
- expenses associated with service and repair of equipment, equipment depreciation, and allocated facility costs for research and development; and
- other research and development costs related to compliance with quality and regulatory requirements.

We expense research and development costs as incurred. Costs for external development activities are recognized based on an evaluation of the progress to completion of specific tasks using information provided to us by our vendors. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our financial statements as prepaid or accrued research and development expenses. Nonrefundable advance payments that we make for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. Such amounts are recognized as an expense as the goods are delivered or the related services are performed, or until it is no longer expected that the goods will be delivered, or the services rendered. Until future commercialization is considered probable and the future economic benefit is expected to be realized, we do not capitalize pre-launch inventory costs.

Costs of property and equipment related to scaling-up our manufacturing capacity for clinical trials and to support commercialization are capitalized as property and equipment unless the related asset does not have an alternative future use.

The historical focus of our research and development has been on the RaniPill delivery platform and not tracked costs on a project-by-project basis associated with different drug compounds.

At this time, we cannot reasonably estimate or know the nature, timing, and estimated costs of the efforts that will be necessary to complete the development of, and obtain regulatory approval for, the RaniPill capsule and RaniPill HC. We expect our research and development expenses to increase significantly in the foreseeable future as we continue to invest in activities related to testing and developing the RaniPill capsule and RaniPill HC, as our product candidates advance into later stages of development, as we begin to conduct larger clinical trials, as we seek regulatory approvals for the RaniPill capsule and RaniPill HC upon successful completion of clinical trials, and incur expenses associated with hiring additional personnel to support the research and development efforts. The process of conducting the necessary clinical research to obtain regulatory approval is costly and time-consuming, the successful development of the RaniPill capsule and RaniPill HC is highly uncertain, and we may never succeed in achieving regulatory approval for the RaniPill capsule and RaniPill HC.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel-related costs (including salaries, bonuses, equity-based compensation, and benefits) for personnel in executive, finance, accounting, legal, corporate and business development, and other administrative functions. General and administrative expenses also include legal fees relating to corporate matters, professional fees paid for accounting, auditing, consulting, tax, and administrative consulting services, insurance costs, travel expenses, marketing expenses, and facility-related expenses, which include direct depreciation costs and allocated expenses for rent and maintenance of facilities and other operating costs.

We anticipate that our general and administrative expenses will increase significantly in the foreseeable future as additional administrative personnel and services are required to manage and support the development of the RaniPill capsule and RaniPill HC. We also anticipate that we will incur increased expenses associated with operating as a public company, including costs of accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance costs, and investor and public relations costs.

Other Income (Expense), Net

Other income (expense), net primarily consists of interest income on our cash and cash equivalents and income (expense) associated with re-measurements of the estimated fair value of preferred unit warrants and loss on the extinguishment of debt.

Non-Controlling Interest

Non-controlling interest ("NCI") represents the portion of income or loss, net assets and comprehensive loss of our consolidated subsidiary that is not allocable to Rani Holdings based on its percentage of ownership of Rani LLC.

In August 2021, based on the Organizational Transactions, Rani Holdings became the sole managing member of Rani LLC. As of December 31, 2021, Rani Holdings held approximately 39% of the Class A Units of Rani LLC, and approximately 61% of the outstanding Class A Units of Rani LLC are held by the Continuing LLC Owners. Therefore, we report NCI based on the Class A Units of Rani LLC held by the Continuing LLC Owners on our consolidated balance sheet as of December 31, 2021. Income or loss attributed to the NCI in Rani LLC is based on the Class A Units outstanding during the period for which the income or loss is generated and is presented on the consolidated statements of operations and comprehensive income or loss.

Future exchanges of Paired Interests will result in a change in ownership and reduce or increase the amount recorded as NCI and increase or decrease additional paid-in-capital when Rani LLC has positive or negative net assets, respectively. From the date of the Organizational Transactions to December 31, 2021, there were no exchanges of Paired Interests.

Tax Receivable Agreement

In August 2021, in connection with the IPO and Organizational Transactions, we entered into a tax receivable agreement ("TRA") with certain of the Continuing LLC Owners. The TRA provides that we pay to such Continuing LLC Owners, 85% of the amount of tax benefits, if any, it is deemed to realize (calculated using certain assumptions) as a result of (i) increases in the tax basis of assets of Rani LLC resulting from (a) any future redemptions or exchanges of Paired Interests and (b) payments under the TRA and (ii) certain other benefits arising from payments under the TRA (collectively the “Tax Attributes”).

A liability for the payable to parties subject to the TRA, and a reduction to stockholders’ equity, is accrued when (i) an exchange of a Paired Interest has occurred and (ii) when it is deemed probable that the Tax Attributes associated with the exchange will be used to reduce our taxable income based on the contractual percentage of the benefit of Tax Attributes that we expect to

receive over a period of time. No exchanges of Paired Interests had occurred through December 31, 2021 and therefore no liability had been accrued for the TRA.

Relationship with InCube Labs

Services Agreements

In January 2019, Rani LLC entered into a one year service agreement with InCube Labs, LLC ("ICL"). This service agreement was amended in January 2020 to extend the period for an additional year and expired in December 2020. In June 2021, Rani LLC entered into a Service Agreement with ICL effective retrospectively to January 1, 2021, and subsequently amended such agreement in March 2022 (as amended, the "Rani LLC-ICL Service Agreement"), pursuant to which Rani LLC and ICL agreed to provide personnel services to the other upon requests. Under the amendment in March 2022, Rani LLC has a right to occupy certain facilities leased by ICL in Milpitas, California and San Antonio, Texas ("Occupancy Services") for general office, research and development, and light manufacturing. The Rani LLC-ICL Service Agreement has a twelve month term and will automatically renew for a successive twelve month periods unless terminated; except that the Occupancy Services in Milpitas, California have a term until February 2023, with the potential for two annual renewals, subject to approval by ICL upon a nine months' notice of renewal prior to the end of the lease term, and the Occupancy Services in San Antonio, Texas continue until either party gives six months notice of termination. Except for the Occupancy Services, Rani LLC or ICL may terminate services under the Rani LLC-ICL Service Agreement upon 60 days' notice to the other party. The Rani LLC-ICL Service Agreement specifies the scope of services to be provided as well as the methods for determining the costs of services. Costs are billed or charged on a monthly basis by ICL or Rani LLC, respectively.

In June 2021, RMS entered into a Service Agreement with ICL (the "RMS-ICL Service Agreement") effective retrospectively to January 1, 2021, pursuant to which ICL agreed to rent a specified portion of its facility to RMS. Additionally, RMS and ICL agreed to provide personnel services to the other upon requests based on rates specified in the RMS-ICL Service Agreement. The RMS-ICL Service Agreement has a twelve month term and will automatically renew for successive twelve month periods unless terminated. RMS or ICL may terminate services under the RMS-ICL Service Agreement upon 60 days' notice to the other party, except for occupancy which requires six months notice. The RMS-ICL Service Agreement specifies the scope of services to be provided as well as the methods for determining the costs of services. Costs are billed or charged on a monthly basis by ICL or RMS, respectively, as well as allocations of expenses based upon RMS's utilization of ICL's facilities and equipment.

Our eligible employees are permitted to participate in ICL's 401(k) Plan ("401(k) Plan"). Participation in the 401(k) Plan is offered for the benefit of our employees, including our named executive officers, who satisfy certain eligibility requirements.

As of December 31, 2021, all of our facilities are owned or leased by an entity affiliated with one of our directors, who is also the owner of ICL. We pay for the use of these facilities through the RMS-ICL Service Agreement.

The table below details the amounts charged by ICL for services and rent, net of the amount that RMS charged ICL of $0.6 million and $0.4 million for the years ended December 31, 2021 and 2020, respectively, which is included in the consolidated statements of operations and comprehensive loss (in thousands):

	Year Ended December 31,	
	2021	2020
Research and development	$ 1,115	$ 535
General and administrative	735	1,826
Total	$ 1,850	$ 2,361

Equity-Based Compensation

In connection with the IPO and Organizational Transactions, we effectuated an exchange of all outstanding Profits Interests into Class A Units including certain Profits Interests related to ICL and its affiliates ("ICL Holders"). Upon the IPO and Organizational Transactions, the performance condition was met for all Profits Interest no longer subject to a service based vesting condition resulting in the recognition of compensation cost associated with these awards. ICL Holders of 919,282 Class A Units exchanged 854,807 such units for our Class A common stock, the remaining 64,475 Class A Units of Rani LLC continue to be outstanding and are exchangeable for our Class A common stock at the option of the ICL Holders.

The following table summarizes the components of equity-based compensation expense recorded in the consolidated statement of operations and comprehensive loss related to awards granted to employees of ICL and its affiliates by Rani Holdings (in thousands):

	Year Ended December 31,	
	2021	2020
Research and development	$ 644	$ —
General and administrative	2,999	—
Total	$ 3,643	$ —

Financing activity

From inception to December 31, 2017, we advanced funds to ICL, and ICL made payments directly to certain vendors on behalf of us. We have reimbursed ICL for all such payments at cost on a monthly basis. In June 2017, we converted the outstanding advances of $6.6 million to ICL into three notes receivable. The notes provided for interest at 1.97% compounded annually, loan fees of 2.75% and were payable upon demand to us any time after January 1, 2024. During the year ended December 31, 2021 and 2020, we received $1.7 million and $0.2 million, respectively, for interest and principal on the remaining ICL note receivable, respectively. As of December 31, 2020, $1.7 million of the note was outstanding. The outstanding balance, including all accrued interest, was fully repaid in March 2021.

In December 2020, we amended the terms of certain expired warrants to purchase Series B units (the "Series B Warrants"), issued to InCube Ventures II, LP ("ICV II"), a related party and entity affiliated with ICL, by extending its exercise period for an additional two years. In December 2020, ICV II elected to cashless exercise all of their Series B Warrants and Rani LLC issued 51,341 Series B units.

Exclusive License Agreement

In June 2021, we and ICL entered into an Amended and Restated Exclusive License Agreement which replaces the 2012 Exclusive License Agreement, as amended in 2013, and terminates the Intellectual Property Agreement, as amended in June 2013. Under the Amended and Restated Exclusive License Agreement, we have a fully paid, exclusive license under certain scheduled patents related to optional features of the device and certain other scheduled patents to exploit products covered by those patents in the field of oral delivery of sensors, small molecule drugs or biologic drugs including, any peptide, antibody, protein, cell therapy, gene therapy or vaccine. We will cover patent-related expenses and, after a certain period, we will have the right to acquire four specified United States patent families from ICL by making a one-time payment of $0.3 million to ICL for each United States patent family that we desire to acquire, up to $1.0 million in the aggregate. This payment will not become an obligation until the fifth anniversary of the Amended and Restated Exclusive License Agreement. The Amended and Restated Exclusive License Agreement will terminate when there are no remaining valid claims of the patents licensed under the Amended and Restated Exclusive License Agreement. Additionally, we may terminate the Amended and Restated Exclusive License Agreement in its entirety or as to any particular licensed patent upon notification to ICL of such intent to terminate.

Non-Exclusive License Agreement between Rani and ICL (“Non-Exclusive License Agreement”)

In June 2021, we entered into the Non-Exclusive License Agreement with ICL, pursuant to which we granted ICL a non-exclusive, fully-paid license under specified patents that were assigned from ICL to us. Additionally, we agreed not to license these patents to a third party in a specific field outside the field of oral delivery of sensors, small molecule drugs or biologic drugs including, any peptide, antibody, protein, cell therapy, gene therapy or vaccine, if ICL can prove that it or its sublicensee has been in active development of a product covered by such patents in that specific field. ICL may grant sublicenses under this license to third parties only with our prior approval. The Non-Exclusive License Agreement will continue in perpetuity unless terminated.

Intellectual Property Agreement with Mir Imran (the “Mir Agreement”)

In June 2021, we entered into the Mir Agreement, pursuant to which we and Mir Imran agreed that we would own all intellectual property conceived (a) using any of our people, equipment, or facilities or (b) that is within the field of oral delivery of sensors, small molecule drugs or biologic drugs including, any peptide, antibody, protein, cell therapy, gene therapy or vaccine. Neither us nor Mir Imran may assign the Mir Agreement to any third party without the prior written consent of the other party. The initial term of the Mir Agreement is three years, which can be extended upon mutual consent of the parties. The Mir Agreement may be terminated by either party for any reason within the initial three year term upon providing three months’ notice to the other party.

Tax Receivable Agreement

ICL is party to the TRA, entered into in August 2021 pursuant to the IPO and Organizational Transactions. The TRA provides that we pay to such entities and individuals 85% of the amount of tax benefits, if any, it is deemed to realize from exchanges of Paired Interests.

Registration Rights Agreement

In connection with the IPO, we entered into a Registration Rights Agreement with the Continuing LLC Owners, including ICL. The Registration Rights Agreement provides the Continuing LLC Owners certain registration rights whereby, at any time following the IPO and the expiration of any related lock-up period, the Continuing LLC Owners can require us to register under the Securities Act shares of Class A common stock issuable to them upon, at our election, redemption or exchange of their LLC Interests. The Registration Rights Agreement also provides for piggyback registration rights for the Continuing LLC Owners.

Rani LLC Agreement

We operate our business through Rani LLC and its subsidiary. In connection with the IPO, we and the Continuing LLC Owners, including ICL, entered into the Fifth Amended and Restated LLC Agreement of Rani LLC (the "Rani LLC Agreement"). The governance of Rani LLC, and the rights and obligations of the holders of LLC Interests, are set forth in the Rani LLC Agreement. As a Continuing LLC Owner, ICL is entitled to exchange, subject to the terms of the Rani LLC Agreement, Paired Interests for our Class A common stock; provided that, at our election, we may effect a direct exchange of such Class A common stock or make a cash payment equal to a volume weighted average market price of one share of Class A common stock for each Paired Interest redeemed. No exchanges by ICL of Paired Interests occurred during the year ended December 31, 2021.

Public Company Expenses

As a result of the IPO, we expect our operating expenses to increase. We expect our accounting, legal and personnel-related expenses and directors' and officers' insurance costs reported within general and administrative to increase as we establish more comprehensive compliance and governance functions, maintain and review internal controls over financial reporting in accordance with the Sarbanes-Oxley Act of 2002 and prepare and distribute periodic reports as required by the rules and regulations of the SEC. As a result, our historical results of operations may not be indicative of our results of operations in future periods.

Results of Operations

The following table summarizes our results of operations (in thousands):

	Year Ended December 31,	
	2021	2020
Contract revenue	$ 2,717	$ 462
Operating expenses		
Research and development	26,482	12,044
General and administrative	27,834	4,962
Total operating expenses	$ 54,316	$ 17,006
Loss from operations	(51,599)	(16,544)
Other income (expense), net		
Interest income	89	63
Loss on extinguishment of debt	(700)	—
Interest expense and other, net	(466)	(124)
Change in estimated fair value of preferred unit warrant	(371)	(63)
Loss before income taxes	(53,047)	(16,668)
Income tax expense	(41)	(35)
Net loss and comprehensive loss	$ (53,088)	$ (16,703)
Net loss attributable to non-controlling interest	(44,757)	(16,703)
Net loss attributable to Rani Therapeutics Holdings, Inc.	$ (8,331)	$ —

Contract Revenue

Contract revenue was $2.7 million and $0.5 million for the years ended December 31, 2021 and 2020, respectively, which was attributable to the evaluation agreement with Takeda. In 2021, $0.7 million of revenue related to the timing of work performed

under the agreement and remaining $2.0 million of deferred revenue, as a result of the termination of the agreement. The termination of the contract was considered a modification of the arrangement, and the deferred revenue under this agreement was fully recognized in the second quarter of 2021.

Research and Development Expenses

The following table reflects our research and development costs by nature of expense (in thousands):

	Year Ended December 31,	
	2021	2020
Payroll, equity-based compensation and related benefits	$ 20,120	$ 6,794
Facilities, materials and supplies	3,595	2,449
Third-party services	2,429	2,690
Other	338	111
Total	$ 26,482	$ 12,044

Research and development expenses were $26.5 million for the year ended December 31, 2021, compared to $12.0 million for the year ended December 31, 2020. The change in research and development expense was attributed to an increase of $13.3 million in salaries and related benefit costs due to higher headcount, which includes $8.2 million of equity-based compensation, of which $6.2 million was attributed to the vesting and recognition of the Profits Interests expense in connection with the IPO and Organizational Transactions, plus additional expense as a result of a modification of certain Profits Interests, and an increase in laboratory supplies of $1.1 million, partially offset by a reduction in third-party services of $0.3 million for the development of our manufacturing processes that occurred in 2020 and did not recur in 2021.

General and Administrative Expenses

General and administrative expenses were $27.8 million for the year ended December 31, 2021, compared to $5.0 million for the year ended December 31, 2020. During the year ended December 31, 2021, our equity-based compensation expense increased by $14.4 million, of which $10.7 million was attributed to the vesting and recognition of the Profits Interests expense in connection with the IPO and Organizational Transactions, plus additional expense as a result of a modification of certain Profits Interests. Additionally, professional and consulting services expense increased by $3.8 million primarily due to the costs associated with preparing to operate as a public company, payroll and related benefits increased by $2.5 million due to higher headcount, facility costs increased $1.7 million to support the higher headcount, and travel costs increased $0.4 million.

Other Income (Expense), Net

Other expense, net, was $1.4 million for the year ended December 31, 2021, which primarily related to $0.7 million of loss on the extinguishment of debt in July 2021, $0.5 million of interest expense on the debt, and $0.4 million due to the increase in the estimated fair value of the Series E preferred unit warrants prior to their conversion. Other expense, net, was $0.1 million for the year ended December 31, 2020, which was primarily due to the interest expense on the debt.

Liquidity and Capital Resources

Source of Liquidity

We have not generated any revenue from commercial product sales and have incurred significant operating losses and negative cash flows from operations. We have not yet commercialized any products, and we do not expect to generate revenue from sales of commercial products for several years, if at all. We anticipate that we will continue to incur net losses for the foreseeable future. Since our inception, we have devoted substantially all of our resources on organizing and staffing our company, business planning, research and development activities, including the RaniPill platform design, drug formulation, preclinical studies, clinical trials, manufacturing automation and scale up, establishing our intellectual property portfolio, and providing general and administrative support for these operations. To date, we have financed our operations primarily through an IPO, private placements of Rani LLC preferred units and the issuance of convertible promissory notes, with aggregate gross proceeds of $282.4 million, as well as revenue generated from evaluation agreements. In August 2021, we raised net proceeds of $73.6 million from the IPO. As of December 31, 2021, we had cash and cash equivalents of $117.5 million.

In April 2020, we received loan proceeds in the amount of approximately $1.3 million under the Paycheck Protection Program, established pursuant to the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"), with Comerica Bank as

the lender (the "PPP Loan"). We used this loan for eligible purposes, including payroll, benefits, rent and utilities. The loan bore interest at 1.0% per annum. In September 2021, we repaid in full the $1.3 million of principal and interest related to the PPP Loan.

In September 2020, we entered into a secured convertible loan agreement (the "Avenue Loan Agreement") with Avenue Venture Opportunities Fund, L.P., for loan proceeds of up to $10.0 million. As of December 31, 2021, we had drawn down $3.0 million under the Avenue Loan Agreement. The Loan bore interest at a variable rate per annum equal to the sum of (i) the greater of (A) the Prime Rate and (B) three and one-quarter percent (3.25%), plus (ii) eight percent (8.00%), compounded monthly until its maturity date of September 1, 2023, at which time all outstanding principal and interest would become due and payable in cash if not already converted. Our obligations under the Avenue Loan Agreement were secured by a first priority security interest in substantially all of our assets. In connection with the Avenue Loan Agreement, we issued warrants of 118,929 units of Series E preferred units (the "Series E Warrants"). The Series E Warrants were exercisable for a period of seven years from the date of grant at an exercise price of $7.1471 per unit. The loan was convertible at the option of the holder into our Series E convertible preferred units. In July 2021, we repaid in full the $3.0 million of principal and approximately $0.5 million of final payment and fees under the Avenue Loan Agreement.

In October 2020, we entered into the Fourth Amended and Restated Limited Liability Company Agreement, which authorized the sale and issuance of up to 10,493,767 Series E Preferred Units. As of December 31, 2021, we had issued the total authorized amount at a price of $7.1471 for gross proceeds of $75.0 million. In conjunction with the IPO and Organizational Transactions, the Series E warrants were settled with 62,877 shares of our Class A common stock.

After completion of the IPO, Rani Holdings became a holding company and has no material assets other than its ownership of LLC Interests. We have no independent means of generating revenue. The Rani LLC Agreement that went into effect at the closing the IPO provides that certain distributions will be made to cover the taxes of the owners of LLC Interests and our obligations under the Tax Receivable Agreement which was entered into with certain of the Continuing LLC Owners.

Since our inception, we have incurred significant losses and negative cash flows from operations. Our net losses were $53.1 million and $16.7 million for the years ended December 31, 2021 and 2020, respectively. As of December 31, 2021, we had an accumulated deficit of $8.3 million. We expect to continue to incur significant losses for the foreseeable future, and our net losses may fluctuate significantly from period to period, depending on the timing of and expenditures on our planned research and development activities. Until such time as we can generate sufficient revenue from commercial product sales, if ever, we expect to finance our operations through a combination of equity offerings and debt financings, or other capital sources, which may include strategic collaborations or other arrangements with third parties. We may be unable to raise additional funds or to enter into such agreements or arrangements on favorable terms, or at all. If we are unable to raise capital or enter into such agreements as and when needed, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. Insufficient liquidity may also require us to relinquish rights to product candidates at an earlier stage of development or on less favorable terms than we would otherwise choose.

Tax Receivable Agreement

We entered into a Tax Receivable Agreement with certain of the Continuing LLC Owners in August 2021 in connection with the IPO. The Tax Receivable Agreement provides for our payment to certain of the Continuing LLC Owners of 85% of the amount of tax benefits, if any, that we are deemed to realize as a result of any basis adjustments and certain other tax benefits arising from payments under the Tax Receivable Agreement. We will have in effect an election under Section 754 of the Code effective for each taxable year in which a redemption or exchange (including deemed exchange) of LLC Interests for shares of our Class A common stock or cash occurs. These Tax Receivable Agreement payments are not conditioned upon any continued ownership interest in either Rani Holdings or Rani LLC by such Continuing LLC Owners. The rights of such Continuing LLC Owners under the Tax Receivable Agreement are assignable to transferees of their LLC Interests (other than us as transferee pursuant to subsequent redemptions (or exchanges) of the transferred LLC Interests). We expect to benefit from the remaining 15% of tax benefits, if any, that we may realize. Due to the uncertainty of various factors, we cannot precisely quantify the tax benefits we may realize as a result of LLC Interest exchanges and the resulting amounts we may need to pay out to certain of the Continuing LLC Owners pursuant to the Tax Receivable Agreement; however, we estimate that such payments may be substantial.

As there have been no transactions which have occurred which would trigger a liability under this agreement, we have not recognized any deferred tax assets or liabilities related to this agreement as of December 31, 2021.

Future Funding Requirements

Based on our current operating plan, we estimate that our existing cash and cash equivalents will be sufficient to fund our operating expenses and capital expenditure requirements through at least the next twelve months. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. Because of the

numerous risks and uncertainties associated with the development of the RaniPill capsule and RaniPill HC and because the extent to which we may enter into strategic collaborations or other arrangements with third parties for development of the RaniPill capsule and RaniPill HC is unknown, we are unable to estimate the timing and amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates.

To date, we have not generated any commercial product revenue. We do not expect to generate any commercial product revenue unless and until we obtain regulatory approval and commercialize any of our commercial product candidates, and we do not know when, or if at all, that will occur. We will continue to require additional capital to develop our product candidates and fund operations for the foreseeable future. Our primary uses of cash are to fund our operations, which consist primarily of research and development expenses related to our programs, manufacturing automation and scaleup, and general and administrative expenses. We expect our expenses to continue to increase in connection with our ongoing activities as we continue to advance the RaniPill capsule and RaniPill HC. In addition, we expect to incur additional costs operating as a public company.

We may seek to raise capital through equity offerings or debt financings, collaboration agreements, or other arrangements with other companies, or through other sources of financing. Adequate additional funding may not be available to us on acceptable terms or at all. Our failure to raise capital as and when needed could have a negative impact on our consolidated financial condition and our ability to pursue our business strategies. We anticipate that we will need to raise substantial additional capital, the requirements of which will depend on many factors, including:

- the progress, costs, trial design, results of and timing of our preclinical studies and clinical trials;
- the progress, costs, and results of our research pipeline;
- the willingness of the U.S. Food and Drug Administration ("FDA"), or other regulatory authorities to accept data from our clinical trials, as well as data from our completed and planned clinical trials and preclinical studies and other work, as the basis for review and approval of the RaniPill capsule and RaniPill HC for various indications;
- the outcome, costs, and timing of seeking and obtaining FDA, and any other regulatory approvals;
- the number and characteristics of product candidates that we pursue;
- our ability to manufacture sufficient quantities of the RaniPill capsules;
- our need to expand our research and development activities;
- the costs associated with manufacturing our product candidates, including establishing commercial supplies and sales, marketing, and distribution capabilities;
- the costs associated with securing and establishing commercial infrastructure;
- the costs of acquiring, licensing, or investing in businesses, product candidates, and technologies;
- our ability to maintain, expand, and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense, and enforcement of any patents or other intellectual property rights;
- our need and ability to retain key management and hire scientific, technical, business, and engineering personnel;
- the effect of competing drugs and product candidates and other market developments;
- the timing, receipt, and amount of sales from our potential products, if approved;
- our ability to establish strategic collaborations;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems;
- security breaches, data losses or other disruptions affecting our information systems;

- the economic and other terms, timing of and success of any collaboration, licensing, or other arrangements which we may enter in the future; and

- the effects of disruptions to and volatility in the credit and financial markets in the United States and worldwide from the COVID-19 pandemic.

If we raise additional capital through debt financing, we may be subject to covenants that restrict our operations including limitations on our ability to incur liens or additional debt, pay dividends, make certain investments, and engage in certain merger, consolidation, or asset sale transactions. Any debt financing or additional equity that we raise may contain terms that are not favorable to us. If we raise funds through collaborations, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs, product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, reduce, or terminate some or all of our development programs and clinical trials. In addition, our ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the recent disruptions to and volatility in the credit and financial markets in the United States and worldwide resulting from the ongoing COVID-19 pandemic.

Cash Flows

The following table summarizes our cash flows for the periods presented (in thousands):

	Year Ended December 31,	
	2021	2020
Net cash used in operating activities	$ (32,245)	$ (14,960)
Net cash used in investing activities	(506)	(1,200)
Net cash provided by financing activities	77,146	72,682
Net increase in cash and cash equivalents	$ 44,395	$ 56,522

Operating Activities

Net cash used in operating activities for the year ended December 31, 2021 was $32.2 million, which was primarily attributable to a net loss of $53.1 million, partially offset by the equity-based compensation expense of $22.6 million, a loss on the extinguishment of the debt of $0.7 million, non-cash depreciation and amortization of $0.5 million, and the change in the estimated fair value of our preferred unit warrant liability of $0.4 million.

Additionally there was an increase of $2.0 million in prepaid expenses and other assets due to director and officer insurance as a result of becoming a publicly traded company, an increase in accrued expenses of $0.7 million, and a decrease in deferred revenue of $2.7 million.

Net cash used in operating activities for the year ended December 31, 2020 was $15.0 million, which was primarily attributable to a net loss of $16.7 million, partially offset by non-cash depreciation and amortization of $0.6 million, an increase in accounts payable of $0.9 million, the payment of the related party payable balance of $1.8 million, and an increase in deferred revenue of $2.5 million.

Investing Activities

For the years ended December 31, 2021 and 2020, net cash used in investing activities was $0.5 million and $1.2 million, respectively, consisting solely of purchases of property and equipment.

Financing Activities

For the year ended December 31, 2021, cash provided by financing activities was approximately $77.1 million, consisting of the proceeds from the issuance of Class A common stock sold in the IPO for net proceeds of $73.6 million, the sale and issuance of our Series E Preferred Units for net proceeds of $6.3 million, and $1.7 million of principal payments received from our related party note receivable, partially offset by repayments of the PPP Loan of $1.3 million and convertible loan of $3.3 million.

For the year ended December 31, 2020, cash provided by financing activities was approximately $72.7 million, consisting of net proceeds from the sale and issuance of preferred units of $68.5 million, proceeds from the PPP Loan of $1.3 million, and net proceeds from the issuance of the convertible loan for net proceeds of $2.8 million.

Contractual Obligations and Other Commitments

Rani LLC pays for the use of its office, laboratory and manufacturing facility in San Jose, California as part of the RMS-ICL Service Agreement, which is accounted for as an operating lease. The lease requires for certain payments of real estate taxes, insurance and certain common area maintenance costs in addition to future minimum lease payments. The RMS-ICL Service Agreement has a twelve month term and will automatically renew for successive twelve month periods unless RMS or ICL terminate occupancy under the RMS-ICL Service Agreement upon six months notice. As of December 31, 2021, no renewal option periods were included in the estimated minimum lease terms as the options were not deemed to be reasonably assured to be exercised. Total operating lease expense incurred with ICL was and $0.8 million for each of the years ended December 31, 2021 and 2020. Subsequently, pursuant to the Rani LLC-ICL Service Agreement, as amended in March 2022, the future aggregate minimum lease payments associated with the Occupancy Services total $0.4 million.

In addition, we enter into agreements in the normal course of business with contract research organizations for clinical trials and with vendors for preclinical studies and other services and products for operating purposes, which are generally cancelable upon written notice.

Critical Accounting Policies and Estimates

This discussion and analysis of financial condition and results of operation is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities as of the date of the financial statements and the reported amounts of expenses during the reporting period. On an ongoing basis, management evaluates its estimates and assumptions. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in the notes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K, we believe that the following critical accounting policies are most important to understanding and evaluating our reported financial results.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development expenses consist primarily of contract research fees and process development, outsourced labor and related expenses for personnel, facilities cost, fees paid to consultants and advisors, depreciation and supplies used in research and development and costs incurred under our evaluation agreements. Payments made prior to the receipt of goods or services to be used in research and development activities are recorded as prepaid expenses until the related goods or services are received. Until future commercialization is considered probable and the future economic benefit is expected to be realized, we do not capitalize pre-launch inventory costs. Costs of property and equipment related to scaling-up of the manufacturing capacity for clinical trials and to support commercialization are capitalized as property and equipment unless the related asset does not have an alternative future use.

Clinical and preclinical costs are a component of research and development expense. We accrue and expense clinical and pre-clinical trial activities performed by third parties based upon actual work completed in accordance with agreements established with its service providers. We determine the actual costs through discussions with internal personnel and external service providers as to the progress or stage of completion of services and the agreed-upon fee to be paid for such services.

Equity-Based Compensation

Stock-Based Compensation

In July 2021, we adopted and our stockholders approved, the Rani Therapeutics Holdings, Inc. 2021 Equity Incentive Plan (the “2021 Plan”). We have subsequently granted stock options to purchase shares of our Class A common stock as well as restricted stock units (“RSUs”) and restricted stock awards ("RSAs") from the 2021 Plan to both employees and non-employees. We measure stock-based compensation at fair value on the grant date of the award. The fair value of employee and nonemployee RSUs is determined based on the number of shares granted and the closing market price of our Class A common stock on the date of grant. The fair value of employee RSAs is determined based on the estimated fair value of our Class A common stock on the grant date and is subject to our reacquisition right which is accounted for as a forfeiture provision. For awards that vest subject to the satisfaction of service requirements, compensation expense is measured based on the fair value of the award on the date of grant and expense is recognized on a straight-line basis over the requisite service period. We account for forfeitures as they occur. Stock-based

compensation is classified in the accompanying consolidated statements of operations and comprehensive loss based on the function to which the related services are provided.

The Company uses the Black-Scholes option pricing model to estimate the fair value of each stock option award on the date of grant. The assumptions and estimates are as follows:

- *Expected term* - The expected term represents the period of time that stock option awards are expected to remain outstanding. The Company estimates the expected term as the midpoint between actual or expected vesting date and the contractual term.

- *Expected volatility* - The expected volatility was derived from the historical stock volatilities of peer public companies within the Company's industry that are considered to be comparable businesses over a period equivalent to the expected term of the stock option awards, since there has been limited trading history of the Company's stock.

- *Risk-free interest rate* - The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the date of grant for zero-coupon U.S. Treasury notes with maturities approximately equal to the stock option awards' expected term.

- *Expected dividend yield* - The expected dividend yield is zero as the Company has no plans to make dividend payments.

Such assumptions represent management's best estimates and involve inherent uncertainties and the application of management's judgment. If actual results are not consistent with our assumptions and judgments used in making these estimates, we may be required to increase or decrease compensation expense, which could be material to our consolidated results of operations and comprehensive loss.

Unit-Based Compensation

Prior to the IPO, Rani LLC had granted equity-based awards to employees, members of the Board of Managers and nonemployees, including ICL employees and consultants, in the form of non-vested incentive units ("Profits Interests") and/or options to purchase common units. All awards of Profits Interests and options to purchase common units were measured based on the estimated fair value of the award on the date of grant. Forfeitures were recognized when they occurred. All of the Profits Interests were subject to service and performance-based conditions and we evaluate the probability of achieving each performance-based condition at each reporting date and recognized equity-based compensation expense for employee and consultant awards and distributions of equity for ICL employee awards in the consolidated financial statements when it was deemed probable that the performance-based condition would be met using the accelerated attribution method over the requisite service period. The options to purchase common units were subject to service conditions and generally vested over three or four years.

As there has been no public market for the fair value of our units, the fair value of our preferred units, which is an input into the estimated fair value of our preferred unit warrants, and Profits Interests has been determined by our board of directors with the assistance of management and an independent third-party valuation specialist. We believe our board of directors has the relevant experience and expertise to determine the fair value of our preferred units and Profits Interests. In determining the fair value of the preferred units and Profits Interests, the methodologies used to estimate the enterprise values were performed using methodologies, approaches, and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* ("AICPA Accounting and Valuation Guide"). In accordance with the AICPA Accounting and Valuation Guide, our board of directors considered the following methods:

- *Current value method* - Under the Current Value Method, our value is determined based on our balance sheet. This value is then first allocated based on the liquidation preference associated with preferred units issued as of the valuation date, and then any residual value is assigned to the common units and Profits Interests.

- *Option-pricing method* - Under the option-pricing method, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the preferred units, common units and Profits Interests are inferred by analyzing these options.

- *Probability-weighted expected return method* - The probability-weighted expected return method, is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each unit class.

The assumptions we use in the valuation model are based on future expectations combined with management's judgment. In the absence of a public trading market, our board of directors, with input from management, exercised significant judgment and considered numerous objective and subjective factors to determine the fair value of the preferred units and Incentive Units as of the date of reporting period or each award, including the following factors:

- independent valuations performed at periodic intervals by an independent third-party valuation firm;
- the prices at which we sold shares of preferred units and the superior rights and preferences of the preferred units relative to our common units at the time of each grant;
- the progress of our research and development programs, including the status and results of preclinical studies for our product candidates; • our stage of development and commercialization and our business strategy;
- external market conditions affecting the biopharmaceutical industry and trends within the biopharmaceutical industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the lack of an active public market for our common units, preferred units or preferred unit warrants;
- the likelihood of achieving a liquidity event, such as an IPO, or sale of our company in light of prevailing market conditions; and
- the analysis of IPOs and the market performance of similar companies in the biopharmaceutical industry.

The assumptions underlying these valuations represented our board of directors and management develop best estimates based on application of these approaches and the assumptions underlying these valuations, giving careful consideration to the advice from our third-party valuation expert. Such estimates involve inherent uncertainties and the application of significant judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our equity-based compensation could be materially different.

Recently Adopted Accounting Standards

For a description of the expected impact of recent accounting pronouncements, see "Note 2. Summary of Significant Accounting Policies" in the "*Notes to the Consolidated Financial Statements*" contained in Part II, Item 8 of this Annual Report on Form 10-K.

Other Information

JOBS Act Accounting Election

We are an "emerging growth company" within the meaning of the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). The JOBS Act permits an emerging growth company like us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are electing to use this extended transition period and we will therefore comply with new or revised accounting standards on the earlier of (i) when they apply to private companies; or (ii) when we lose our emerging growth company status. As a result, our financial statements may not be comparable with companies that comply with public company effective dates for accounting standards. We also rely on other exemptions provided by the JOBS Act, including not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act unless we cease to be an emerging growth company.

We will remain an emerging growth company until the earliest of (1) December 31, 2026 (the last day of the fiscal year following the fifth anniversary of the closing of our initial public offering), (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which would occur if the market value of our Class A common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are a smaller reporting company as defined by Rule 12b-2 of the Exchange Act and are not required to provide the information required under this item.

Item 8. Financial Statements and Supplementary Data

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Rani Therapeutics Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Rani Therapeutics Holdings, Inc. (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity / convertible preferred units and members' deficit and cash flows for each of the two years in the period ended December 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2019.

Redwood City, California
March 30, 2022

RANI THERAPEUTICS HOLDINGS, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

	December 31,	
	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	$ 117,453	$ 73,058
Related party note receivable	—	1,720
Prepaid expenses	2,142	167
Total current assets	119,595	74,945
Property and equipment, net	4,612	4,470
Total assets	$ 124,207	$ 79,415
Liabilities, Convertible Preferred Units and Stockholders' Equity / Members' Deficit		
Current liabilities:		
Accounts payable	$ 1,080	$ 537
Related party payable	126	145
Accrued expenses	1,434	550
Deferred revenue	—	2,717
Current portion of long-term debt	—	1,359
Total current liabilities	2,640	5,308
Preferred unit warrant liability	—	320
Long-term debt, less current portion	—	2,412
Total liabilities	2,640	8,040
Commitments and contingencies (Note 10)		
Convertible preferred units	—	184,714
Stockholders' equity / (members' deficit):		
Common units	—	664
Preferred stock, $0.0001 par value - 20,000 shares authorized; none issued and outstanding as of December 31, 2021	—	—
Class A common stock, $0.0001 par value - 800,000 shares authorized; 19,712 issued and outstanding as of December 31, 2021	2	—
Class B common stock, $0.0001 par value - 40,000 shares authorized; 29,290 issued and outstanding as of December 31, 2021	3	—
Class C common stock, $0.0001 par value - 20,000 shares authorized; none issued and outstanding as of December 31, 2021	—	—
Additional paid-in capital	55,737	—
Accumulated deficit	(8,331)	(114,003)
Total stockholders' equity attributable to Rani Therapeutics Holdings, Inc. / (members' deficit)	47,411	(113,339)
Non-controlling interest	74,156	—
Total stockholders' equity / (members' deficit)	121,567	(113,339)
Total liabilities, convertible preferred units and stockholders' equity / (members' deficit)	$ 124,207	$ 79,415

The accompanying notes are an integral part of these consolidated financial statements.

RANI THERAPEUTICS HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except per share amounts)

	Year Ended December 31,	
	2021	2020
Contract revenue	$ 2,717	$ 462
Operating expenses		
Research and development	26,482	12,044
General and administrative	27,834	4,962
Total operating expenses	$ 54,316	$ 17,006
Loss from operations	(51,599)	(16,544)
Other income (expense), net		
Interest income	89	63
Loss on extinguishment of debt	(700)	—
Interest expense and other, net	(466)	(124)
Change in estimated fair value of preferred unit warrant	(371)	(63)
Loss before income taxes	(53,047)	(16,668)
Income tax expense	(41)	(35)
Net loss and comprehensive loss	$ (53,088)	$ (16,703)
Net loss attributable to non-controlling interest	(44,757)	(16,703)
Net loss attributable to Rani Therapeutics Holdings, Inc.	$ (8,331)	$ —
Net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc., basic and diluted	$ (0.43)	
Weighted-average Class A common shares outstanding—basic and diluted	19,534	

The accompanying notes are an integral part of these consolidated financial statements.

RANI THERAPEUTICS HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY/CONVERTIBLE PREFERRED UNITS AND MEMBERS' DEFICIT
(in thousands)

	Convertible Preferred Units	Members' Deficit	Class A Common Stock		Class B Common Stock		Additional Paid In Capital	Accumulated Deficit	Non-Controlling Interest	Total Stockholders' Equity/(Members' Deficit)
			Shares	Amount	Shares	Amount				
Balance at December 31, 2019	$ 115,505	$ (96,636)	—	—	—	—	—	—	—	$ (96,636)
Cashless exercise of Series B Preferred warrants	718	—	—	—	—	—	—	—	—	—
Issuance of Series E Preferred Units, net of issuance costs of $190	68,491	—	—	—	—	—	—	—	—	—
Net loss	—	(16,703)	—	—	—	—	—	—	—	$ (16,703)
Balance at December 31, 2020	$ 184,714	$ (113,339)	—	$ —	—	$ —	$ —	$ —	$ —	$ (113,339)
Activity prior to initial public offering ("IPO") and related Organizational Transactions										
Issuance of Series E preferred units	6,320	—	—	—	—	—	—	—	—	—
Equity-based compensation from secondary sales transactions	—	453	—	—	—	—	—	—	—	453
Exercise of warrant for common units	—	26	—	—	—	—	—	—	—	26
Settlement of preferred unit warrant liability	691	—	—	—	—	—	—	—	—	—
Equity-based compensation	—	17,324	—	—	—	—	—	—	—	17,324
Net loss	—	(31,727)	—	—	—	—	—	—	—	(31,727)
Effects of the IPO and related Organizational Transactions										
Effects of Organizational Transactions	(191,725)	127,263	12,048	1	29,290	3	18,106	—	46,352	191,725
Issuance of Class A common stock in connection with the IPO, net of issuance costs of $10,686	—	—	7,667	1	—	—	73,647	—	—	73,648
Non-controlling interest adjustment for purchase of newly issued Class A units of Rani LLC with proceeds from the IPO	—	—	—	—	—	—	(37,895)	—	37,895	—
Net loss	—	—	—	—	—	—	—	(149)	(233)	(382)
Activity subsequent to the IPO and related Organizational Transactions										
Equity-based compensation	—	—	—	—	—	—	1,880	—	2,940	4,820
Forfeiture of restricted stock awards	—	—	(3)	—	—	—	(1)	—	(1)	(2)
Net loss	—	—	—	—	—	—	—	(8,182)	(12,797)	(20,979)
Balance at December 31, 2021	$ —	$ —	19,712	$ 2	29,290	$ 3	$ 55,737	$ (8,331)	$ 74,156	$ 121,567

The accompanying notes are an integral part of these consolidated financial statements.

RANI THERAPEUTICS HOLDINGS, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,	
	2021	2020
Cash flows from operating activities		
Net loss	$ (53,088)	$ (16,703)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	497	589
Equity-based compensation expense	22,595	—
Change in fair value of preferred unit warrant liability	371	63
Loss on extinguishment of debt	700	—
Other	109	47
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(1,975)	(9)
Accounts payable	543	933
Accrued expenses	739	(636)
Related party payable	(19)	(1,782)
Deferred revenue	(2,717)	2,538
Net cash used in operating activities	(32,245)	(14,960)
Cash flows from investing activities		
Purchases of property and equipment	(506)	(1,200)
Net cash used in investing activities	(506)	(1,200)
Cash flows from financing activities		
Proceeds from issuance of Class A common stock sold in the IPO, net of issuance costs	73,648	—
Proceeds from issuance of preferred units, net of issuance costs	6,320	68,491
Proceeds from exercise of warrants for common units	26	—
Proceeds from the Paycheck Protection Program Loan	—	1,254
Repayment of the Paycheck Protection Program Loan	(1,254)	—
Proceeds from issuance of convertible note, net of issuance costs	—	2,781
Repayment of convertible note	(3,314)	—
Principal and interest repayments from related party for note receivable	1,720	156
Net cash provided by financing activities	77,146	72,682
Net increase in cash and cash equivalents	44,395	56,522
Cash and cash equivalents, beginning of period	73,058	16,536
Cash and cash equivalents, end of period	$ 117,453	$ 73,058
Supplemental disclosures of cash flow information		
Cash paid for interest	$ 285	$ 57
Cash paid for income taxes	$ 73	$ —
Supplemental disclosures of non-cash investing and financing activities		
Property and equipment purchases included in accounts payable and accrued expenses	$ 145	$ —
Settlement of preferred unit warrant liability	$ 691	$ —
Exchange of Class A Units of Rani LLC from the Former LLC Owners	$ 132,527	$ —
Reissuance of previously expired warrant for Series B preferred units	$ —	$ 718
Cashless exercise of warrant for Series B preferred units	$ —	$ 718

The accompanying notes are an integral part of these consolidated financial statements.

1. Organization and Nature of Business

Description of Business

Rani Therapeutics Holdings, Inc. ("Rani Holdings") was formed as a Delaware corporation in April 2021 for the purpose of facilitating an initial public offering ("IPO") of its Class A common stock, and to facilitate certain organizational transactions and to operate the business of Rani Therapeutics, LLC ("Rani LLC") and its consolidated subsidiary, Rani Management Services, Inc. ("RMS"). Rani Holdings and its consolidated subsidiaries, Rani LLC and RMS are collectively referred to herein as "Rani" or the "Company."

The Company is a clinical stage biotherapeutics company focusing on advancing technologies to enable the administration of biologics orally, to provide patients, physicians, and healthcare systems with a convenient alternative to painful injections. The Company is advancing a portfolio of oral biologic therapeutics using its proprietary delivery technology, the RaniPill capsule, which can deliver any drug, including large molecules such as peptides, proteins, and antibodies. The Company is headquartered in San Jose, California and operates in one segment.

Up to December 31, 2019, Rani LLC maintained no employees of its own and contracted InCube Labs, LLC ("ICL"), the majority common unit holder of Rani LLC and a related party, through service agreements to provide research, development and administrative services. ICL and Rani LLC have common management and interest holders and, in the course of performing under the terms of the service agreements, ICL employees acted on behalf of Rani LLC. Effective January 1, 2020, the ICL personnel that were substantially dedicated to providing services to Rani LLC were hired by RMS as full-time employees (Note 6).

Initial Public Offering and Organizational Transactions

In August 2021, the Company closed its IPO and sold 7,666,667 shares of its Class A common stock, including shares issued pursuant to the exercise in full of the underwriters' option, for cash consideration of $11.00 per share and received approximately $73.6 million in net proceeds, after deducting underwriting discounts, offering costs and commissions. The Company used the proceeds from the IPO to purchase 7,666,667 newly issued economic nonvoting Class A units ("Class A Units") of Rani LLC.

In connection with the IPO, the Company was party to the following organizational transactions (the "Organizational Transactions"):

- Amended and restated Rani LLC's operating agreement (the "Rani LLC Agreement") to appoint the Company as the sole managing member of Rani LLC and effectuated an exchange of all outstanding (i) convertible preferred units, automatic or net exercised warrants to purchase preferred units and common units, and common units of Rani LLC, into Class A Units and an equal number of voting noneconomic Class B units ("Class B Units") and (ii) all Profits Interests into Class A Units. In connection with the closing of the IPO, each LLC interest was exchanged 1 for 0.5282 as determined and predicated on the initial public offering price of the Company's Class A common stock;

- Amended and restated the Company's certificate of incorporation in July 2021, to provide for the issuance of (i) Class A common stock, each share of which entitles its holders to one vote per share, (ii) Class B common stock, each share of which entitles its holders to 10 votes per share on all matters presented to the Company's stockholders, (iii) Class C common stock, which has no voting rights, except as otherwise required by law and (iv) preferred stock;

- Exchanged 12,047,925 shares of Class A common stock for existing Class A Units of Rani LLC held by certain individuals and entities (the "Former LLC Owners") on a one-for-one basis;

- Issued 29,290,391 shares of Class B common stock to the certain individuals and entities that continued to hold Class A Units in Rani LLC after the IPO (the "Continuing LLC Owners") in return for an equal amount of Rani LLC Class B Units;

- Entered into a Registration Rights Agreement with certain of the Continuing LLC Owners.

The Continuing LLC Owners are entitled to exchange, subject to the terms of the Rani LLC Agreement, the Class A Units they hold in Rani LLC, together with the shares they hold of the Company Class B common stock (together referred to as a "Paired

Interest"), in return for shares of the Company's Class A common stock on a one-for-one basis provided that, at the Company's election, the Company has the ability to effect a direct exchange of such Class A common stock or make a cash payment equal to a volume weighted average market price of one share of Class A common stock for each Paired Interest redeemed. Any shares of Class B common stock will be cancelled on a one-for-one basis if, at the election of the Continuing LLC Owners, the Company redeems or exchanges such Paired Interest pursuant to the terms of the Rani LLC Agreement. Certain individuals who continue to own interests in Rani LLC but do not hold shares of the Company's Class B common stock have the ability to exchange their Class A Units of Rani LLC for 1,545,522 shares of the Company's Class A common stock.

Liquidity

The Company has incurred recurring losses since its inception, including net losses of $53.1 million for the year ended December 31, 2021. As of December 31, 2021, the Company had an accumulated deficit of $8.3 million and for the year ended December 31, 2021 had negative cash flows from operations of $32.2 million. The Company expects to continue to generate operating losses and negative operating cash flows for the foreseeable future as it continues to develop the RaniPill capsule. The Company expects that its cash and cash equivalents of $117.5 million as of December 31, 2021 will be sufficient to fund its operations through at least twelve months from the date the consolidated financial statements are issued. The Company expects to finance its future operations with its existing cash and through strategic financing opportunities that could include, but are not limited to, future offerings of its equity, collaboration or licensing agreements, or the incurrence of debt. However, there is no guarantee that any of these strategic or financing opportunities will be executed or realized on favorable terms, if at all, and some could be dilutive to existing stockholders and holders of interests in the Company. The Company will not generate any revenue from product sales unless, and until, it successfully completes clinical development and obtains regulatory approval for the RaniPill capsule. If the Company obtains regulatory approval for the RaniPill capsule, it expects to incur significant expenses related to developing its internal commercialization capability to support manufacturing, product sales, marketing, and distribution.

The Company's ability to raise additional capital through either the issuance of equity or debt, is dependent on a number of factors including, but not limited to, the market interest of the Company, which itself is subject to a number of development and business risks and uncertainties, as well as the uncertainty that the Company would be able to raise such additional capital at a price or on terms that are favorable to the Company. Market volatility resulting from the novel coronavirus disease ("COVID-19") pandemic or other factors could also adversely impact the Company's ability to access capital when and as needed.

2. Summary of Significant Accounting Policies

Basis of Presentation

These consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

The Company operates and controls all of the business and affairs of Rani LLC and, through Rani LLC and its subsidiary, conducts its business. Because the Company manages and operates the business and controls the strategic decisions and day-to-day operations of Rani LLC and also has a substantial financial interest in Rani LLC, the Company consolidates the financial results of Rani LLC, and a portion of its net loss is allocated to the non-controlling interests in Rani LLC held by the Continuing LLC Owners. All intercompany accounts and transactions have been eliminated in consolidation.

The Organizational Transactions were considered transactions between entities under common control. As a result, the consolidated financial statements for periods prior to the IPO and the Organizational Transactions have been adjusted to combine the previously separate entities for presentation purposes.

Variable Interest Entities

The Company consolidates all entities that it controls through a majority voting interest or as the primary beneficiary of a variable interest entity ("VIE"). In determining whether the Company is the primary beneficiary of an entity, the Company applies a qualitative approach that determines whether it has both (1) the power to direct the economically significant activities of the entity and (2) the obligation to absorb losses of, or the right to receive benefits from, the entity that could potentially be significant to that entity. The Company's determination about whether it should consolidate such VIEs is made continuously as changes to existing relationships or future transactions may result in a consolidation event.

Use of Estimates

The preparation of the consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses and the disclosure of contingent

assets and liabilities in the Company's consolidated financial statements and accompanying notes. These estimates and assumptions are based on current facts, historical experience and various other factors believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the recording of expenses that are not readily apparent from other sources. Estimates include, but are not limited to, revenue recognition, equity-based compensation expense, accrued research and development costs and, until the occurrence of the Company's IPO, the fair value of Profits Interests and preferred unit warrants. Actual results may differ materially and adversely from these estimates.

Revenue Recognition

The Company enters into evaluation arrangements with certain pharmaceutical partners, under which the Company performs evaluation services of the partner's drug molecules using the RaniPill capsule.

Revenue is recognized when control of promised goods or services is transferred to a customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To determine revenue recognition for its arrangements with customers, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

Revenue for an individual contract is recognized at the related transaction price, which is the amount the Company expects to be entitled to in exchange for transferring these services. The terms of the evaluation services agreements usually include payments for evaluation services and evaluation milestones based on a decision to extend the agreement. The transaction price of the evaluation services contracts may include variable consideration. Application of the constraint for variable consideration requires judgment. The constraint for variable consideration is applied such that it is probable a significant reversal of revenue will not occur when the uncertainty associated with the contingency is resolved. Application of the constraint for variable consideration is updated at each reporting period as a revision to the estimated transaction price. For arrangements where the anticipated period between timing of transfer of services and the timing of payment is one year or less, the Company has elected to not assess whether a significant financing component exists. The Company recognizes evaluation services revenue over the period in which evaluation services are provided. Specifically, the Company recognizes revenue using an output method to measure progress, using samples processed relative to total expected samples to be processed as its measure of progress. For services under these arrangements, costs incurred are included in research and development expenses in the Company's consolidated statements of operations and comprehensive loss.

Customer options, such as options granted to allow a customer to acquire later stage evaluation services, are evaluated at contract inception in order to determine whether those options provide a material right (i.e., an optional good or service offered for free or at a discount) to the customer. If the customer options represent a material right, the material right is treated as a separate performance obligation at the outset of the arrangement. The Company allocates the transaction price to material rights based on the standalone selling price, and revenue is recognized when or as the future goods or services are transferred or when the option expires. Customer options that are not material rights do not give rise to a separate performance obligation, and as such, the additional consideration that would result from a customer exercising an option in the future is not included in the transaction price for the current contract. Instead, the option is deemed a marketing offer, and additional option fee payments are recognized or being recognized as revenue when the licensee exercises the option. The exercise of an option that does not represent a material right is treated as a separate contract for accounting purposes.

Revenue is recognized for each distinct performance obligation as control is transferred to the customer. The Company recognizes revenue from its evaluation services over time as services are delivered, using a cost-based input method of revenue recognition over the contract term. The cost-based input measured is based on an estimate of total costs to be incurred to deliver the services over the contract period compared to costs incurred to date for each contract. The Company's evaluation of estimated costs to perform the services typically includes estimates for effort related to contracted research, formulation, and animal testing. These estimates are based on the Company's reasonable assumptions and its historical experience. Actual results may differ materially and adversely from these estimates.

Incremental costs of obtaining contracts are expensed when incurred when the amortization period of the assets that otherwise would have been recognized is one year or less. To date, none of these costs have been material. The costs to fulfill the contracts are determined to be immaterial and are recognized as an expense when incurred.

Contract assets are generated when contractual billing schedules differ from revenue recognition timing and the Company records a contract receivable when it has an unconditional right to consideration. No contract assets balance was recorded as of December 31, 2021 or December 31, 2020.

Contract liabilities are recorded as deferred revenue when cash payments are received or due in advance of performance or where the Company has unsatisfied performance obligations. As of December 31, 2020, the Company had deferred revenue of $2.7 million. There was no deferred revenue as of December 31, 2021.

Concentrations of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company maintains accounts in federally insured financial institutions in excess of federally insured limits. The Company also holds money market funds that are not federally insured. However, management believes the Company is not exposed to significant credit risk due to the financial strength of the depository institutions in which these deposits are held and of the money market funds and other entities in which these investments are made.

In December 2019, a novel strain of coronavirus, which causes the disease known as COVID-19, was reported to have surfaced in Wuhan, China. Since then, COVID-19 coronavirus has spread globally. In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. The COVID-19 pandemic has impacted and may continue to impact the Company's third-party manufacturers and suppliers, which could disrupt its supply chain or the availability or cost of materials. The effects of the public health directives and the Company's work-from-home policies may negatively impact productivity, disrupt its business, and delay clinical programs and timelines and future clinical trials, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on the Company's ability to conduct business in the ordinary course. These and similar, and perhaps more severe, disruptions in the Company's operations could negatively impact business, results of operations and financial condition, including its ability to obtain financing. To date, the Company has not incurred impairment losses in the carrying values of its assets as a result of the pandemic and is not aware of any specific related event or circumstances that would require the Company to revise its estimates reflected in these consolidated financial statements.

The Company cannot be certain what the overall impact of the COVID-19 pandemic will be on its business and prospects. The extent to which the COVID-19 pandemic will further directly or indirectly impact its business, results of operations, financial condition, and liquidity, including planned and future clinical trials and research and development costs, will depend on future developments that are highly uncertain, including as a result of new information that may emerge concerning COVID-19, the actions taken to contain or treat it, and the duration and intensity of the related effects. In addition, the Company could see some limitations on employee resources that would otherwise be focused on its operation, including but not limited to sickness of employees or their families, the desire of employees to avoid contact with large groups of people, and increased reliance on working from home. If the financial markets and/or the overall economy are impacted for an extended period, the Company's business, financial condition, results of operations and prospects may be adversely affected.

Cash and Cash Equivalents

The Company considers all cash held on deposit and highly liquid investments purchased with original or remaining maturities of less than three months at the date of purchase to be cash equivalents. Cash equivalents are carried at cost, which approximates fair value. The Company's cash and cash equivalents consist of balances held in demand depositary accounts and money market funds. The Company limits its credit risk associated with cash and cash equivalents by maintaining its bank accounts at major financial institutions.

Fair Value of Financial Instruments

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

Level 1—Quoted prices in active markets for identical assets or liabilities.

Level 2—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.

Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The carrying values of the Company's cash equivalents, prepaid expenses, accounts payable, and accruals approximate their fair value due to their short-term nature. The fair value of the Company's long-term debt approximated its carrying value based on borrowing rates currently available to the Company for debt with similar terms and maturities (Level 2 inputs).

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgement exercised by the Company in determining fair value is greatest for instruments categorized in Level 3 (Note 3). A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value of the instrument.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development expenses consist primarily of contract research fees and process development, outsourced labor and related expenses for personnel, facilities cost, fees paid to consultants and advisors, depreciation and supplies used in research and development and costs incurred under the Company's evaluation agreements. Payments made prior to the receipt of goods or services to be used in research and development activities are recorded as prepaid expenses until the related goods or services are received. Until future commercialization is considered probable and the future economic benefit is expected to be realized, the Company does not capitalize pre-launch inventory costs. Costs of property and equipment related to scaling-up of the manufacturing capacity for clinical trials and to support commercialization are capitalized as property and equipment unless the related asset does not have an alternative future use.

Clinical and preclinical costs are a component of research and development expense. The Company accrues and expenses clinical and pre-clinical trial activities performed by third parties based upon actual work completed in accordance with agreements established with its service providers. The Company determines the actual costs through discussions with internal personnel and external service providers as to the progress or stage of completion of services and the agreed-upon fee to be paid for such services.

Equity-Based Compensation

Stock-Based Compensation

In July 2021, the Company adopted and its stockholders approved, the Rani Therapeutics Holdings, Inc. 2021 Equity Incentive Plan (the "2021 Plan"). The Company has subsequently granted stock options to purchase shares of its Class A common stock as well as restricted stock units ("RSUs") and restricted stock awards ("RSAs") from the 2021 Plan to both employees and non-employees. The Company measures stock-based compensation at fair value on the grant date of the award. The fair value of employee and nonemployee RSUs is determined based on the number of shares granted and the closing market price of the Company's Class A common stock on the date of grant. The fair value of employee RSAs is determined based on the estimated fair value of the Company's Class A common stock on the grant date and is subject to the Company's reacquisition right which is accounted for as a forfeiture provision (Note 9). For awards that vest subject to the satisfaction of service requirements, compensation expense is measured based on the fair value of the award on the date of grant and expense is recognized on a straight-line basis over the requisite service period. The Company accounts for forfeitures as they occur. Stock-based compensation is classified in the accompanying consolidated statements of operations and comprehensive loss based on the function to which the related services are provided.

The Company determines the grant-date fair value of options to purchase common shares using the Black-Scholes option-pricing model which requires inputs based on certain subjective assumptions, including the expected stock price volatility, the expected term of the option, the risk-free interest rate for a period that approximates the expected term of the option, and the Company's expected dividend yield. Such assumptions represent management's best estimates and involve inherent uncertainties and the application of management's judgment. If actual results are not consistent with the Company's assumptions and judgments used in making these estimates, the Company may be required to increase or decrease compensation expense, which could be material to the Company's consolidated results of operations.

Unit-Based Compensation

Prior to the IPO, Rani LLC had granted equity-based awards to employees, members of the Board of Managers and nonemployees, including ICL employees and consultants, in the form of non-vested incentive units ("Profits Interests") and/or options to purchase common units. All awards of Profits Interests and options to purchase common units were measured based on the estimated fair value of the award on the date of grant. Forfeitures were recognized when they occurred. All of the Profits Interests were subject to service and performance-based conditions and the Company evaluated the probability of achieving each performance-based condition at each reporting date and recognized equity-based compensation expense for employee and consultant awards and distributions of equity for ICL employee awards in the consolidated financial statements when it was deemed probable that the performance-based condition would be met using the accelerated attribution method over the requisite service period. The options to purchase common units were subject to service conditions and generally vested over three or four years.

The Company utilized estimates and assumptions in determining the fair value of its Profits Interests and options to purchase common units on the date of grant. The Company utilized various valuation methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its preferred units, common units and Profits Interests. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates and assumptions include several objective and subjective factors, including probability weighting of events, volatility, time to an exit event, a risk-free interest rate, the prices at which Rani LLC sold preferred units, the superior rights, and preferences of the preferred units senior to Rani LLC's common units at the time, and a discount for the lack of marketability. Changes to the key assumptions used in the valuations could result in different fair values at each valuation date.

Income Taxes

The Company is the managing member of Rani LLC and, as a result, consolidates the financial results of Rani LLC and its taxable subsidiary RMS in the consolidated financial statements. Rani LLC is a pass-through entity for United States federal and most applicable state and local income tax purposes following the IPO and Organizational Transactions. As an entity classified as a partnership for tax purposes, Rani LLC is not subject to United States federal and certain state and local income taxes. Any taxable income or loss generated by Rani LLC is passed through to, and included in the taxable income or loss of, its members, including the Company. The Company is taxed as a corporation and pays corporate federal, state and local taxes with respect to income allocated to the it, based on the its economic interest in Rani LLC. The Company's tax provision also includes the activity of RMS, which is taxed as a corporation for United States federal and state income tax purposes.

The Company accounts for income taxes under the asset and liability method of accounting. Current income tax expense or benefit represents the amount of income taxes expected to be payable or refundable for the current year. The Company recognizes deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, as well as for operating loss and tax credit carryforwards. The Company measures deferred tax assets and liabilities using enacted tax rates expected to apply to taxable income in the years in which the Company expects to recover or settle those temporary differences. The Company recognizes the effect of a change in tax rates on deferred tax assets and liabilities in the results of operations in the period that includes the enactment date. The Company reduces the measurement of a deferred tax asset, if necessary, by a valuation allowance if it is more likely than not that the Company will not realize some or all of the deferred tax asset.

The Company's tax positions are subject to income tax audits. The Company uses a recognition threshold and measurement attribute for the consolidated financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. A tax position is recognized when it is more likely than not that the tax position will be sustained upon examination, including the resolution of any related appeals or litigation. A tax position that meets the more-likely-than-not recognition threshold is measured at the largest amount of benefit that is greater than a 50% likelihood of being realized upon ultimate settlement with a taxing authority. Interest and penalties related to unrecognized tax benefits are recognized in income tax expense in the accompanying consolidated statements of operations and comprehensive loss. No such interest and penalties were recognized for any period presented.

In March 2020, the United States enacted the Families First Coronavirus Response Act ("FFCR Act") and Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"). The CARES Act is an emergency economic stimulus package that includes spending and tax breaks to strengthen the United States economy and fund a nationwide effort to curtail the effect of COVID-19. While the CARES Act provides sweeping tax changes in response to the COVID-19 pandemic, there was no material impact from the related income tax provisions on the Company's consolidated financial statements for each of the years ended December 31, 2021 and 2020.

In December 2020, the United States enacted the Consolidated Appropriations Act, 2021 (the "Appropriations Act"). Included in the tax provisions are a number of items directly related to COVID-19 relief such as a provision allowing recipients of PPP loans to deduct associated costs and an extension and significant expansion of the employee retention credit originally enacted in the CARES Act. There was no material impact from the provisions of the Appropriations Act in 2020. With respect to PPP loan, while the expenses are deductible for United States income tax purposes, they are not currently deductible for California income tax purposes as of the date of the financial statements.

In June 2020, the state of California enacted Assembly Bill No. 85 ("AB 85") suspending California net operating loss utilization and imposing a cap on the amount of business incentive tax credits companies can utilize, effective for tax years 2020, 2021 and 2022. There was no material impact from the provisions of AB 85 on the Company's consolidated financial statements for each of the years ended December 31, 2021 and 2020.

In March 2021, the American Rescue Plan (“H.R. 1319”) was signed into law. This legislation extends and enhances a number of current-law tax incentives for businesses, but also expands the definition of a “covered employee” as defined by Section 162(m)(1) of the Internal Revenue Code. There was no material impact from the provisions of H.R. 1319 on the Company's consolidated financial statements for the year ended December 31, 2021.

Tax Receivable Agreement

In August 2021, in connection with the IPO and Organizational Transactions, the Company entered into a tax receivable agreement ("TRA") with certain of the Continuing LLC Owners. The TRA provides that the Company pay to such Continuing LLC Owners, 85% of the amount of tax benefits, if any, it is deemed to realize (calculated using certain assumptions) as a result of (i) increases in the tax basis of assets of Rani LLC resulting from (a) any future redemptions or exchanges of Paired Interests and (b) payments under the TRA and (ii) certain other benefits arising from payments under the TRA (collectively the “Tax Attributes”).

A liability for the payable to parties subject to the TRA, and a reduction to stockholders’ equity, is accrued when (i) an exchange of a Paired Interest has occurred and (ii) when it is deemed probable that the Tax Attributes associated with the exchange will be used to reduce the Company’s taxable income based on the contractual percentage of the benefit of Tax Attributes that the Company expects to receive over a period of time.

No exchanges of Paired Interests had occurred through December 31, 2021 and therefore no liability had been incurred for the TRA.

Comprehensive Loss

Comprehensive loss is defined as a change in equity of a business enterprise during a period, resulting from transactions and other events and/or circumstances from non-owner sources. The Company did not have any other comprehensive loss for any of the periods presented, and therefore comprehensive loss was the same as the Company’s net loss.

Non-Controlling Interest

Non-controlling interest ("NCI") represents the portion of income or loss, net assets and comprehensive loss of Rani LLC that is not allocable to the Company based on the Company's percentage of ownership of Rani LLC.

In August 2021, based on the Organizational Transactions, the Company became the sole managing member of Rani LLC. As of December 31, 2021, the Company held approximately 39% of the Class A Units of Rani LLC, and approximately 61% of the outstanding Class A Units of Rani LLC are held by the Continuing LLC Owners. Therefore, the Company reports NCI based on the Class A Units of Rani LLC held by the Continuing LLC Owners on its consolidated balance sheet as of December 31, 2021. Income or loss attributed to the NCI in Rani LLC is based on the Class A Units outstanding during the period for which the income or loss is generated and is presented on the consolidated statements of operations and comprehensive income or loss.

Future exchanges of Paired Interests and certain Class A Units of Rani LLC without corresponding shares of the Company’s Class B common stock will result in a change in ownership and reduce or increase the amount recorded as NCI and increase or decrease additional paid-in-capital when Rani LLC has positive or negative net assets, respectively. From the date of the Organizational Transactions to December 31, 2021, there were no exchanges of Paired Interests nor certain Class A Units of Rani LLC without corresponding shares of Company's Class B common stock.

Property and Equipment, Net

Property and equipment, net are stated at cost, less accumulated depreciation and amortization calculated using the straight-line method over the estimated useful lives of the assets, generally between three and five years. Leasehold improvements are amortized over the shorter of the related lease term or useful life. Maintenance and repairs are charged to operations when incurred, while betterments or renewals are capitalized. When property and equipment are sold or otherwise disposed of, the asset account and related accumulated depreciation and amortization accounts are relieved, and any gain or loss is included in the results of operations. Construction-in-progress consists of production equipment that will be used to scale-up the manufacturing of the RaniPill capsule for clinical trials and that has been determined to have an alternative future use. Construction-in-progress is stated at cost and does not begin to depreciate until it is put into production.

Impairment of Long-Lived Assets

The Company reviews the carrying amounts of its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset (or asset group) may not be recoverable. If indicators of impairment exist,

an impairment loss would be recognized when the estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. The impairment charge is determined based upon the excess of the carrying value of the asset over its estimated fair value, with estimated fair value determined based upon an estimate of discounted future cash flows or other appropriate measures of estimated fair value. Management believes that no revision to the remaining useful lives or write-down of long-lived assets is required as of and for the year ended December 31, 2021.

Related Party Note Receivable

The principal balance on the related party note receivable is recorded on the consolidated balance sheet along with earned and not yet received interest income. The principal balance is classified on the consolidated balance sheet based upon the expected timing of the repayments by the related party. Interest income received and receivable on the related party note receivable is recorded as a component of interest income in the consolidated statement of operations and comprehensive loss. Associated interest earned is recognized using the effective interest method. The estimated fair value of the Company's related party note receivable at December 31, 2020, approximated its carrying value due to its short-term nature. In March 2021, the related party repaid in full the $1.7 million of principal and interest related to the note receivable.

Convertible Preferred Units

The Company records convertible preferred units at fair value on the dates of issuance, net of issuance costs. The Company has classified convertible preferred units as temporary equity in the accompanying consolidated balance sheets due to terms that allow for redemption of the units in cash upon certain change in control events that are not within the Company's control, including the sale or transfer of the Company.

The carrying values of the convertible preferred units are adjusted to their liquidation preferences if and when it becomes probable that such a liquidation even will occur. The Company did not accrete the value of the convertible preferred units to their redemption values since a liquidation event was not considered probable.

The Company also evaluates the features of its convertible preferred units to determine if the features require bifurcation from the underlying units, by evaluating if they are clearly and closely related to the underlying units and if they do, or do not, meet the definition of a derivative.

Preferred Unit Warrant Liability

Outstanding warrants to purchase preferred units of the Company were classified as liabilities in the accompanying consolidated balance sheets due to a contingent redemption right of the holder of the preferred unit warrants that is outside of the control of the Company that precluded equity classification. Such preferred unit warrants were subject to re-measurement at the end of each reporting period until they were settled in July 2021. The Company estimated the fair value of preferred unit warrants at each reporting period, using a hybrid between the probability weighted expected return and option pricing methods, estimating the probability weighted value across multiple scenarios, but using the option pricing method to estimate the allocation of value within one or more of those scenarios, until the earlier of the exercise of the preferred unit warrants, at which time the liability was revalued and reclassified to members' deficit upon the completion of the Company's IPO.

Net Loss Per Class A Common Share Attributable to Rani Holdings

Basic net loss per Class A common share attributable to Rani Holdings is computed by dividing net loss attributable to the Company by the weighted average number of Class A Common shares outstanding during the period, without consideration of potential dilutive securities. Diluted net loss per Class A Common share is computed giving effect to all potentially dilutive shares. Diluted net loss per Class A Common share for all periods presented is the same as basic loss per share as the inclusion of potentially issuable shares would be antidilutive. Net loss per share is not presented for the year ended December 31, 2020 as the Company did not have any economic interests prior to the date of the IPO and Organizational Transactions through which it was given ownership in Rani LLC. Losses prior to the IPO and Organizational Transactions would have been allocated to the original members of Rani LLC. The basic and diluted net loss per Class A common share attributable to Rani Holdings for the year ended December 31, 2021 is applicable only for the period from August 4, 2021 to December 31, 2021, which is the period following the IPO and Organizational Transactions and represents the period that the Company had Class A common shares outstanding.

Emerging Growth Company Status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 ("JOBS Act"). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to

the enactment of the JOBS Act, until such time as those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that it (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

New Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (the "FASB") issued ASU 2016-02, *Leases* ("Topic 842"), as subsequently amended, to improve financial reporting and disclosures about leasing transactions. Topic 842 requires companies that lease assets to recognize on the consolidated balance sheet the assets and liabilities for the rights and obligations created by those leases, where the lease terms exceed 12 months. The recognition, measurement, and presentation of expense and cash flows arising from a lease by a lessee will depend primarily on its classification as a finance or operating lease; both types of leases will be recognized on the consolidated balance sheet. Topic 842 also requires disclosures to help financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. On June 3, 2020, the FASB amended the effective dates of Topic 842 to give immediate relief from business disruptions caused by the COVID-19 pandemic and provided a one-year deferral of the effective date for nonpublic companies. The Company plans to adopt this standard using the modified retrospective approach with a cumulative effect adjustment to accumulated deficit at the beginning of the period of adoption. The Company will also adopt certain practical expedients provided by Topic 842. As a result of the Company having elected the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the JOBS Act Topic 842 was effective for the Company on January 1, 2022. The Company is in the process of evaluating the effects of Topic 842 on its consolidated financial statements but does not expect the adoption of Topic 842 will have a material impact on the Company's consolidated financial statements and related notes to the recognition of right of use assets and lease liabilities on the Company's consolidated balance sheets or on the Company's consolidated statement of income. The adoption of Topic 842 will also result in enhanced disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses* ("ASU 2016-13") to require the measurement of expected credit losses for financial instruments held at the reporting date based on historical experience, current conditions and reasonable forecasts. The main objective of this ASU is to provide financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. As a result of the Company having elected the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the JOBS Act, and assuming the Company continues to be considered an emerging growth company, ASU 2016-13 will be effective for the Company on January 1, 2023. The Company has not yet determined the potential effects of ASU 2016-13 on its consolidated financial statements and disclosures.

3. Fair Value Measurements

The following table presents information about the Company's financial assets and liabilities measured at fair value on a recurring basis and indicates the level of inputs used in such measurements (in thousands):

	As of December 31, 2021			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 115,595	$ —	$ —	$ 115,595
Total assets	$ 115,595	$ —	$ —	$ 115,595

	As of December 31, 2020			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 71,666	$ —	$ —	$ 71,666
Total assets	$ 71,666	$ —	$ —	$ 71,666
Liabilities:				
Preferred unit warrant liability	$ —	$ —	$ 320	$ 320
Total liabilities	$ —	$ —	$ 320	$ 320

There were no financial liabilities measured at fair value on a recurring basis as of December 31, 2021.

Money market funds are highly liquid and actively traded marketable securities that generally transact at a stable $1.00 net asset value representing its estimated fair value.

There were no transfers between Level 1, Level 2 and Level 3 of the fair value hierarchy for any of the periods presented.

The Company held a Level 3 liability associated with preferred unit warrants that were issued in conjunction with a loan and security Agreement (Note 11). These preferred unit warrants were settled with Class A common stock as part of the IPO and Organizational Transactions (Note 7).

The following tables set forth a summary of the changes in the fair value of the Company's liability measured using Level 3 inputs (in thousands):

	Year Ended December 31,	
	2021	2020
Balance at beginning of period	$ 320	$ 655
Issuance of Series E warrants	—	320
Change in estimated fair value of Series B warrants	—	63
Change in estimated fair value of Series E warrants	371	—
Settlement of Series B warrants	—	(718)
Settlement of Series E warrants	(691)	—
Balance at end of period	$ —	$ 320

4. Balance Sheet Components

Property and equipment, net

Property and equipment, net consist of the following (in thousands):

	December 31,	
	2021	2020
Laboratory equipment	$ 1,734	$ 1,612
Leasehold improvements	1,233	1,120
Software	60	60
Office equipment	42	28
Total	3,069	2,820
Less accumulated depreciation and amortization	(2,331)	(1,834)
Total	738	986
Construction-in-progress	3,874	3,484
Total property and equipment, net	$ 4,612	$ 4,470

Depreciation and amortization expense totaled approximately $0.5 million and $0.6 million for the years ended December 31, 2021 and 2020, respectively. As of December 31, 2021 and 2020, all of the Company's property and equipment was located in the United States, with the exception of $3.5 million, respectively, of construction-in-progress that is located in Germany at a third-party manufacturing facility.

Accrued expenses

Accrued expenses consist of the following (in thousands):

	December 31,	
	2021	2020
Accrued clinical trial costs	$ 621	$ 145
Accrued professional fees	213	181
Payroll and related	202	136
Other	398	88
Total accrued expenses	$ 1,434	$ 550

5. Evaluation Agreements

Takeda

Takeda Pharmaceutical Company, Limited ("Takeda") was collaborating with the Company to conduct research on the use of the RaniPill capsule for the oral delivery of factor VIII (“FVIII”) therapy for patients with hemophilia A. The agreement granted Takeda a right of first negotiation to a worldwide, exclusive license under the Company’s intellectual property related to a FVIII-RaniPill therapeutic. Takeda paid the Company up-front payments of $5.9 million upon execution of and subsequent modifications to the agreement. Upon the initial evaluation services being completed, Takeda had an option to pay the Company $3.0 million to perform later stage evaluation services. Takeda also had the ability to terminate the agreement at any time by providing 30 days written notice after the effective date of the agreement. Unless terminated early, the agreement term ended upon the expiration of the right of first negotiation period which is 120 days after the completion of the evaluation services. The Takeda agreement could be terminated for cause by either party based on uncured material breach by the other party or bankruptcy of the other party. Upon early termination, all ongoing activities under the agreement and all mutual collaboration, development and commercialization licenses and sublicenses would terminate.

The Company identified one material promise under the Takeda agreement, the obligation to perform services to evaluate if Takeda’s FVIII therapy can be orally delivered using the RaniPill capsule (“Research and Development Services”), which was concluded to be a single performance obligation.

For revenue recognition purposes, the Company determined that the duration of the contract began on the effective date in November 2017 and ended upon completion of the Research and Development Services. The contract duration was defined as the period in which parties to the contract had present enforceable rights and obligations. The Company also analyzed the impact of Takeda terminating the agreement prior to the completion of the performance obligation and determined, considering both quantitative and qualitative factors, that there were substantive non-monetary penalties to Takeda for doing so.

The Company determined that the cost-based input method most faithfully depicted the transfer of its performance obligation to Takeda. Accordingly, the Company recognized its contract revenue based on actual costs incurred as a percentage of total estimated costs the Company expected to incur to deliver its performance obligation. These actual costs consisted of internal labor efforts, in vivo testing services and materials costs related to the Takeda agreement, as the costs incurred over time reflect the transfer of its performance obligations to Takeda. The cumulative effect of revisions to estimated costs to complete the Company’s performance obligation was recorded in the period in which changes were identified and amounts were reasonably estimable.

In May 2021, the Company received written notice from Takeda as to their intent to terminate the contract for convenience. Due to the delivery of the termination notice, the Company determined that there were no further enforceable rights and obligations under the agreement beyond May 2021 and the remaining $2.0 million of deferred revenue was recognized during the year ended December 31, 2021.

For the years ended December 31, 2021 and 2020, the Company recognized contract revenue related to the Takeda agreement of $2.7 million and $0.5 million, respectively. As of December 31, 2020, deferred revenue related to the remaining identified performance obligation for the Takeda agreement of $2.7 million was recorded on the consolidated balance sheets. There was no deferred revenue as of December 31, 2021.

Changes in the deferred revenue balance are as follows (in thousands):

	December 31,	
	2021	2020
Balance at beginning of period	$ 2,717	$ 179
Additions	—	3,000
Deductions	(2,717)	(462)
Balance at end of period	$ —	$ 2,717

There were no receivables or net contract assets recorded as of December 31, 2021 or December 31, 2020 associated with the Takeda agreement. The Company expensed all incremental costs of obtaining the Takeda agreements, as such amounts were insignificant.

6. Related Party Transactions

ICL is wholly-owned by the Company's founder and Executive Chairman and his family. The founder and Executive Chairman is also the father of the Company's Chief Executive Officer. The Company's Chief Scientific Officer is the brother of the founder and Executive Chairman and uncle of the Company's Chief Executive Officer.

Services agreements

In January 2019, Rani LLC entered into a one year service agreement with ICL. This service agreement was amended in January 2020 to extend the period for an additional year and expired in December 2020. In June 2021, Rani LLC entered into a Service Agreement with ICL effective retrospectively to January 1, 2021 (the "Rani LLC-ICL Service Agreement"), pursuant to which Rani LLC and ICL agreed to provide personnel services to the other upon requests. The Rani LLC-ICL Service Agreement has a twelve month term and will automatically renew for a successive twelve month periods unless terminated. Rani LLC or ICL may terminate services under the Rani LLC-ICL Service Agreement upon 60 days' notice to the other party. The Rani LLC-ICL Service Agreement specifies the scope of services to be provided as well as the methods for determining the costs of services. Costs are billed or charged on a monthly basis by ICL or Rani LLC, respectively.

In June 2021, RMS entered into a Service Agreement with ICL (the "RMS-ICL Service Agreement") effective retrospectively to January 1, 2021, pursuant to which ICL agreed to rent a specified portion of its facility to RMS. Additionally, RMS and ICL agreed to provide personnel services to the other upon requests based on rates specified in the RMS-ICL Service Agreement. The RMS-ICL Service Agreement has a twelve month term and will automatically renew for successive twelve month periods unless terminated. RMS or ICL may terminate services under the RMS-ICL Service Agreement upon 60 days' notice to the other party, except for occupancy which requires six months notice. The RMS-ICL Service Agreement specifies the scope of services to be provided as well as the methods for determining the costs of services. Costs are billed or charged on a monthly basis by ICL or RMS, respectively, as well as allocations of expenses based upon RMS's utilization of ICL's facilities and equipment.

The table below details the amounts charged by ICL for services and rent, net of the amount that RMS charged ICL of $0.6 million and $0.4 million for the years ended December 31, 2021 and 2020, respectively, which is included in the consolidated statements of operations and comprehensive loss (in thousands):

	Year Ended December 31,	
	2021	2020
Research and development	$ 1,115	$ 535
General and administrative	735	1,826
Total	$ 1,850	$ 2,361

The Company's eligible employees are permitted to participate in ICL's 401(k) Plan ("401(k) Plan"). Participation in the 401(k) Plan is offered for the benefit of the employees, including the Company's named executive officers, who satisfy certain eligibility requirements.

As of December 31, 2021, all of the Company's facilities have a lease term of twelve months and are owned or leased by an entity affiliated with the Company's Executive Chairman. The Company pays for the use of these facilities through the services agreement with ICL. Total operating lease expense incurred with ICL was $0.8 million for each of the years ended December 31, 2021 and 2020.

Financing activity

From inception to the first half of 2017, the Company advanced funds to ICL, and ICL made payments directly to certain vendors on behalf of Rani, Rani has reimbursed ICL for all such payments at cost on a monthly basis.

In June 2017, the Company converted the outstanding net advances of $6.6 million to ICL into three notes receivable. The notes provide for interest at 1.97% compounded annually, loan fees of 2.75% and are payable upon demand to the Company any time after January 1, 2024. During 2020, the Company received $0.2 million in payments for interest and repayment of principal on the remaining note receivable.

As of December 31, 2020, $1.7 million of the note receivable was outstanding. In March 2021, the outstanding balance due, including all accrued interest, was fully repaid by ICL.

During 2020, the Company amended certain Series B warrants held by an entity affiliated with ICL. In December 2020, this entity elected to cashless exercise all of their Series B warrants in return for 51,341 Series B units of Rani LLC (Note 7). This same entity also acquired 59,312 Series D units of Rani LLC for $1.0 million in 2017.

During 2020 and 2021, South Lake One LLC, a related party of the Company, and its affiliates purchased 2,100,800 common units of Rani LLC and 7,880,120 Series E Preferred Units of Rani LLC. As part of the Organizational Transactions the common units and Series E Preferred Units were exchanged for 5,277,729 shares of the Company's Class A common stock. In connection with the IPO and subsequent thereto, South Lake One LLC and its affiliates purchased an additional 6,458,904 shares of the Company's Class A common stock for total gross proceeds of $71.1 million.

Exclusive License, Intellectual Property and Common Unit Purchase Agreement

The Company, through Rani LLC, and ICL entered into an exclusive license and an intellectual property agreement and common unit purchase agreement in 2012. Pursuant to the common unit purchase agreement, the Company issued 46.0 million common units to ICL in return for rights to exclusive commercialization, development, use and sale of certain products and services related to the RaniPill capsule technology. ICL also granted the Company a fully-paid, royalty-free, sublicensable, exclusive license under the intellectual property made by ICL during the course of providing services to the Company related to the RaniPill capsule technology. Such rights were not recorded on the Company's consolidated balance sheet as the transaction was considered a common control transaction.

In June 2021, ICL and the Company, through Rani LLC, entered into an Amended and Restated Exclusive License Agreement which replaced the 2012 Exclusive License Agreement between ICL and Rani LLC, as amended in 2013, and terminated the 2012 Intellectual Property Agreement between ICL and Rani LLC, as amended in June 2013. Under the Amended and Restated Exclusive License Agreement, the Company has a fully paid, exclusive license under certain scheduled patents related to optional features of the device and certain other scheduled patents to exploit products covered by those patents in the field of oral delivery of sensors, small molecule drugs or biologic drugs including, any peptide, antibody, protein, cell therapy, gene therapy or vaccine. The Company covers patent-related expenses and, after a certain period, the Company will have the right to acquire four specified United States patent families from ICL by making a one-time payment of $0.3 million to ICL for each United States patent family that the Company desires to acquire, up to $1.0 million in the aggregate. This payment will not become an obligation until the fifth anniversary of the Amended and Restated Exclusive License Agreement. The Amended and Restated Exclusive License Agreement will terminate when there are no remaining valid claims of the patents licensed under the Amended and Restated Exclusive License Agreement. Additionally, the Company may terminate the Amended and Restated Exclusive License Agreement in its entirety or as to any particular licensed patent upon notification to ICL of such intent to terminate.

Non-Exclusive License Agreement between Rani and ICL ("Non-Exclusive License Agreement")

In June 2021, the Company, through Rani LLC, entered into the Non-Exclusive License Agreement with ICL a related party, pursuant to which the Company granted ICL a non-exclusive, fully-paid license under specified patents that were assigned from ICL to the Company. Additionally, the Company agreed not to license these patents to a third party in a specific field outside the field of oral delivery of sensors, small molecule drugs or biologic drugs including, any peptide, antibody, protein, cell therapy, gene therapy or vaccine, if ICL can prove that it or its sublicensee has been in active development of a product covered by such patents in that specific field. ICL may grant sublicenses under this license to third parties only with the Company's prior approval. The Non-Exclusive License Agreement will continue in perpetuity unless earlier terminated.

Intellectual Property Agreement with Mir Imran (the "Mir Agreement")

In June 2021, the Company, through Rani LLC, entered into the Mir Agreement, pursuant to which the Company and Mir Imran agreed that the Company would own all intellectual property conceived (a) using any of the Company's people, equipment, or facilities or (b) that is within the field of oral delivery of sensors, small molecule drugs or biologic drugs including, any peptide, antibody, protein, cell therapy, gene therapy or vaccine. Neither the Company nor Mir Imran may assign the Mir Agreement to any third party without the prior written consent of the other party. The initial term of the Mir Agreement is three years, which can be extended upon mutual consent of the parties. The Mir Agreement may be terminated by either party for any reason within the initial three year term upon providing three months' notice to the other party.

Board Services

During the year ended December 31, 2020, the Company made a $0.2 million payment to a member of the Board of Managers of Rani LLC for legacy board services provided to the Company, there were no such payments made in the year ended December 31, 2021.

Secondary Sales Transactions

In February 2021, one of the Company's named executive officer's and then member of the Board of Managers of Rani LLC, and a current member of the Board of Managers of Rani LLC sold a total of 210,000 common units to a third-party investor at $7.1471 per unit. The Company determined that the sales price was above fair value of such units and as a result recorded equity-based compensation expense of $0.5 million for which $0.2 million was recorded as general and administrative expense and $0.3 million was recorded as research and development expense. The $0.5 million represents the difference between the sales price and fair value of the common units.

Equity-Based Compensation

In connection with the IPO and Organizational Transactions, the Company effectuated an exchange of all outstanding Profits Interests into Class A Units including certain Profits Interests related to ICL and its affiliates ("ICL Holders"). Upon the IPO and Organizational Transactions, the performance condition was met for all Profits Interest no longer subject to a service based vesting condition resulting in the recognition of compensation cost associated with these awards (Note 9). ICL Holders of 919,282 Class A Units exchanged 854,807 such units for the Company's Class A common stock, the remaining 64,475 Class A Units of Rani LLC continue to be outstanding and are exchangeable for the Company's Class A common stock at the option of the ICL Holders.

The following table summarizes the components of equity-based compensation expense recorded in the consolidated statement of operations and comprehensive loss related to awards granted to employees of ICL and its affiliates by the Company (in thousands):

	Year Ended December 31,	
	2021	2020
Research and development	$ 644	$ —
General and administrative	2,999	—
Total	$ 3,643	$ —

Tax Receivable Agreement

ICL is party to the TRA, entered into in August 2021 pursuant to the IPO and Organizational Transactions. The TRA provides that the Company pay to such entities and individuals 85% of the amount of tax benefits, if any, it is deemed to realize from exchanges of Paired Interests (Note 2).

Registration Rights Agreement

In connection with the IPO, the Company entered into a Registration Rights Agreement. ICL is a party to this agreement. The Registration Rights Agreement provides certain registration rights whereby, at any time following the IPO and the expiration of any related lock-up period, ICL Holders with LLC Interests can require the Company to register under the Securities Act of 1933, as amended (the “Securities Act”) shares of Class A common stock issuable to such ICL Holders upon, at the Company’s election, redemption or exchange of their Paired Interests. The Registration Rights Agreement also provides for piggyback registration rights.

Rani LLC Agreement

The Company operates its business through Rani LLC and its subsidiary. In connection with the IPO, the Company and the Continuing LLC Owners, including ICL, entered into the Rani LLC Agreement. The governance of Rani LLC, and the rights and obligations of the holders of LLC Interests, are set forth in the Rani LLC Agreement. As a Continuing LLC Owner, ICL is entitled to exchange, subject to the terms of the Rani LLC Agreement, Paired Interests for Class A common stock of the Company; provided that, at the Company’s election, the Company may effect a direct exchange of such Class A common stock or make a cash payment equal to a volume weighted average market price of one share of Class A common stock for each Paired Interest redeemed. No exchanges by ICL of Paired Interests occurred during the year ended December 31, 2021.

7. Warrants

Preferred unit warrants

In May 2013, in conjunction with the Series B convertible preferred unit (the “Series B” or “Series B units”) financing, the Company issued warrants to ICL to purchase 107,357 Series B units. The Series B warrants were exercisable for a period of five

years from the grant date at an exercise price of $3.73 per unit. During 2018, the Company amended the terms of the Series B warrants, extending the exercise period for an additional two years. These Series B warrants expired unexercised in May 2020 resulting in a $0.6 million decrease in fair value. In December 2020, the Company amended the terms of these expired Series B warrants, extending the exercise period for an additional two years resulting in a $0.7 million increase in fair value. In December 2020, ICL elected to cashless exercise all of their Series B warrants and Rani LLC issued 51,341 Series B units. There were no Series B warrants outstanding at December 31, 2021 or 2020, respectively.

In September 2020, in conjunction with a loan and security Agreement (Note 11), the Company issued warrants to purchase up to 118,929 Series E preferred units. The Series E warrants were exercisable for a period of seven years from the grant date at an exercise price of $7.1471 per unit. In the event of a change of control or IPO, the Series E warrants were to automatically be exchanged for the same number of units of the Company's securities for no consideration had the holder of the warrant elected to exercise the warrant immediately prior to a change in control or IPO. In conjunction with the IPO, all of the Series E warrants were ultimately settled for 62,887 shares of the Company's Class A common stock. At December 31, 2020, there were 118,929 Series E warrants outstanding. There were no Series E warrants outstanding at December 31, 2021.

Common unit warrants

In 2017, in conjunction with the Series D convertible preferred unit financing, the Company issued 229,315 common unit warrants with an exercise price of $2.18 per unit and an exercise period of five years. The Company recorded the issuance-date fair value of the common warrants of $0.3 million in equity as the warrant met all criteria for equity classification. In January 2021, 6,000 common unit warrants were exercised at $2.18 per unit, and in July 2021 5,913 common unit warrants were exercised at $2.18 per unit. In connection with the IPO and Organizational Transactions, the remaining common warrants were net exercised for 71,867 Class A Units of Rani LLC, of which 60,494 were then exchanged into shares of the Company's Class A common stock as part of the Organizational Transactions. At December 31, 2020, 229,315 common unit warrants were outstanding. There were no common unit warrants outstanding at December 31, 2021.

8. Stockholders' Equity / Members' Deficit

Prior to the Organizational Transactions, Rani LLC was authorized to issue 101,000,000 common units, of which 10,850,000 had been reserved for issuance as Profits Interests and 32,620,000 were reserved for six separate classes, the Series A convertible preferred units (the "Series A units"), the Series B convertible preferred units (the "Series B units"), the Series C convertible preferred units (the "Series C units"), the Series C-1 convertible preferred units (the "Series C-1 units"), the Series D convertible preferred units (the "Series D units"), and the Series E convertible preferred units (the "Series E units"), collectively the "Preferred Units".

The members of the Rani LLC who held these common and Preferred Units were not liable, solely by reason of being a member, for the debts, obligations, or liabilities of the Company whether arising in contract or tort; under a judgment, decree, or order of a court; or otherwise. The members were also not obligated to make capital contributions to Rani LLC and Rani LLC would have dissolved only upon a written consent of a majority of the members.

The Company's Profits Interests were subject to either a combination of service, market, or performance vesting conditions. Vested Profits Interests were treated as common units for purposes of distributions.

Amendment and Restatement of Certificate of Incorporation

In connection with the Organizational Transactions, the Company's certificate of incorporation was amended and restated to, among other things, provide for the (i) authorization of 800,000,000 shares of Class A common stock with a par value of $0.0001 per share; (ii) authorization of 40,000,000 shares of Class B common stock with a par value of $0.0001 per share; (iii) authorization of 20,000,000 shares Class C common stock with a par value of $0.0001 per share; and (iv) authorization of 20,000,000 shares of preferred stock with a par value of $0.0001 per share.

Holders of Class A common stock are entitled to one vote per share; holders of Class B common stock are entitled to ten votes per share; and holders of Class C common stock have no voting rights. Except as otherwise expressly provided in the Amended and Restated Certificate of Incorporation or as required by law, the holders of Class A common stock and Class B common stock (and, on any matter on which the Class C common stock or the holders of preferred stock are entitled to vote with the Class A common stock and the Class B common stock, the Class C common stock and the preferred stock) will vote together as a single class and not as separate series or classes.

The Company is required to, at all times, maintain (i) a one-to-one ratio between the number of shares of Class A common stock outstanding and the number of Class A Units owned by Company and (ii) a one-to-one ratio between the number of shares of

Class B common stock owned by the Continuing LLC Owners and the number of Class A Units owned by the Continuing LLC Owners. The Company may issue shares of Class B common stock only to the extent necessary to maintain these ratios. Shares of Class B common stock are not transferable except (a) to the Company for no consideration (in which case the shares will be cancelled automatically) or (b) together with an equal number of Class A Units to a transferee in compliance with the LLC Agreement and the provisions set forth in the Company's amended and restated certificate of incorporation. All Class B common stock that is exchanged as part of a Paired Interest for Class A common stock shall be automatically retired and cancelled and shall no longer be outstanding.

In August 2021, the Company received 29,290,391 Class B Units of Rani LLC as consideration for the issuance of Class B common stock on a one-for-one basis.

Management of Rani LLC

In August 2021, Rani LLC's members and Board of Managers adopted the amended and restated Rani LLC Agreement to, among other things, appoint the Company as Rani LLC's sole managing member and provide that, except where the approval of one or more members is specifically required by the express terms of the Rani LLC Agreement, all management powers over the business and affairs of Rani LLC are vested exclusively in the Company as the sole managing member.

Initial Public Offering

In July 2021, the Company completed an IPO of 7,666,667 shares of common stock, inclusive of the 1,000,000 shares of Class A common stock purchased by underwriters pursuant to the underwriters' option to purchase additional shares at the offering price, less underwriting discounts and commissions. The Company received net proceeds from the IPO of approximately $73.6 million after deducting underwriting discounts and commissions, which was used to purchase 7,666,667 newly-issued Class A Units of Rani LLC.

Registration Rights Agreement

In connection with the IPO, the Company entered into a Registration Rights Agreement with the Continuing LLC Owners, including ICL. The Registration Rights Agreement provides the Continuing LLC Owners certain registration rights whereby, at any time following the IPO and the expiration of any related lock-up period, the Continuing LLC Owners can require the Company to register under the Securities Act shares of Class A common stock issuable to them upon, at the Company's election, redemption or exchange of their Paired Interests. The Registration Rights Agreement also provides for piggyback registration rights for the Continuing LLC Owners.

9. Equity-Based Compensation

Equity Plans

Prior to the IPO, Rani LLC had adopted the 2016 Equity Incentive Plan (the "2016 Plan") under which the Board of Managers of Rani LLC issued options for common units, Profits Interests, and restricted common units to managers, consultants or other individuals who provide service to the Company. The Board of Managers had the authority to determine to whom Profits Interests would be granted, the number of options granted, and the Profits Interests threshold amount, which was the minimum amount determined by the Board of Managers in its reasonable discretion to be necessary to cause such interests to be treated as Profits Interests ("Threshold Amounts"). In 2020, the Board of Managers approved an additional 2,000,000 common units to be reserved under the Plan for issuance as Profit Interests. Effective April 2021, in anticipation of the IPO, the Company ceased granting Profits Interests and began to issue options for common units out of the remaining pool. In July 2021, the 2016 Plan was frozen for new awards, concurrent with the adoption of the 2021 Plan.

Immediately upon receipt of a Profits Interests award, the recipient had no initial capital account balance and the Profits Interests received did not entitle such recipient to any portion of the capital of Rani LLC at the time of such recipient's admission to Rani LLC as an unitholder member, such that if Rani LLC's assets were sold at fair market value immediately after the grant to such recipient of Profits Interests and the proceeds distributed in complete liquidation of Rani LLC, the Profits Interests recipient would not be entitled to receive a portion of those proceeds. Additionally, Rani LLC would not make a distribution with respect to any Profits Interests holder until Rani LLC had made aggregate distributions to each of its members not subject to the Profits Interests Threshold Amount. The common units underlying each Profits Interests award entitled the holder, upon a sale or other specified capital transaction (as set forth in the Operating Agreement), to participate in a portion of the profits and appreciation in the equity value of Rani LLC arising after the date of grant, as determined in reference to the Profits Interests Threshold Amount set forth in each award agreement.

In July 2021, in connection with the IPO, the Company adopted and its stockholders approved the 2021 Plan. The 2021 Plan provides for the grant of incentive stock options ("ISOs"), non-statutory stock options ("NSOs"), stock appreciation rights, RSAs, RSUs, performance-based awards and other awards for shares of the Company's Class A common stock.

In July 2021, the Company's board of directors adopted and its stockholders approved, the Rani Therapeutics Holdings, Inc. 2021 Employee Stock Purchase Plan (the "ESPP"). As of December 31, 2021, no shares have been issued under the ESPP.

The Company reserved 500,000 shares of Class A Common Stock for issuance under the ESPP and 5,500,000 shares of Class A common stock for future issuance under the 2021 Plan.

Stock Options

A summary of stock option activity during the periods indicated is as follows:

	Number of Stock Option Awards	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2020	—	$ —		$ —
Granted	2,300,819	$ 14.12	9.55	$ 976
Balance at December 31, 2021	2,300,819	$ 14.12	9.55	$ 976
Exercisable at December 31, 2021	89,182	$ 9.44	9.46	$ 616
Nonvested at December 31, 2021	2,211,637	$ 14.30	9.55	$ 360

In connection with the Organizational Transactions, 2,292,309 options for common units of Rani LLC still subject to service vesting conditions were amended to be exercisable into 1,212,124 shares of the Company's Class A common stock. This was considered to be a modification but did not result in modification accounting as it did not impact the awards' vesting conditions, classification or fair value. These stock options vest based on the grantees continued services over a three or four year period.

As of December 31, 2021, there was $19.8 million of unrecognized equity-based compensation expense related to stock options which is expected to be recognized over a weighted-average period of approximately 3.3 years.

Options for Rani LLC Common Units

A summary of options for common units activity during the periods indicated is as follows:

	Number of Unit Option Awards	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2020	—	$ —	—	
Granted	2,292,309	$ 4.99	9.89	
Amended to be exercisable into the Company's Class A common stock	(2,292,309)	$ 4.99	9.89	
Balance at December 31, 2021	—	$ —	—	$ —

Through July 2021, the Company granted options to acquire 2,292,309 common units of Rani LLC to certain executives and members of the Board of Managers. In conjunction with the Organizational Transactions, these unit options were amended to be exercisable into 1,212,124 shares of the Company's Class A common stock.

Restricted Stock Units

A summary of RSU activity during the periods indicated is as follows:

	Number of Restricted Stock Units	Weighted Average Grant-Date Fair Value per Share
Balance at December 31, 2020	—	$ —
Granted	599,500	$ 19.56
Forfeited	(3,000)	$ 19.56
Balance at December 31, 2021	596,500	$ 19.56

As of December 31, 2021, there was $9.9 million of unrecognized equity-based compensation expense related to RSUs which is expected to be recognized over a weighted-average period of approximately 1.7 years.

Restricted Stock Awards

A summary of RSA activity during the periods indicated is as follows:

	Number of Restricted Stock Awards	Weighted Average Grant-Date Fair Value per Share
Balance at December 31, 2020	—	$ —
Granted	137,691	$ 6.15
Vested	(21,800)	$ 6.12
Forfeited	(2,718)	$ 6.27
Balance at December 31, 2021	113,173	$ 6.15

In connection with the IPO and Organizational Transactions, 397,500 Profits Interests of Rani LLC were amended and replaced with 137,691 RSAs of the Company's Class A common stock. This was considered to be a modification but did not result in modification accounting as it did not impact the awards' vesting conditions, classification or fair value. The RSAs are subject to both service vesting conditions and the Company's reacquisition right of unvested RSAs from the holder, for no monetary consideration, upon the termination of continuous service by the holder. The RSAs are not deemed to be issued for accounting purposes until they vest and are therefore excluded from shares outstanding for accounting purposes until the repurchase right lapses and the shares are no longer subject to the reacquisition right. As of December 31, 2021, there was $0.4 million of unrecognized equity-based compensation expense related to RSAs which is expected to be recognized over a weighted-average period of approximately 1.4 years. The total fair value of the RSAs that vested in 2021 was approximately $0.4 million.

Profits Interests

A summary of Profits Interests activity during the periods indicated is as follows:

	Number of Profits Interests	Weighted Average Grant Date Fair Value	Profits Interests Threshold
Balance at December 31, 2020	6,926,358	$ 1.63	$1.44 - $2.29
Granted	1,857,000	$ 2.13	$1.99 - $2.13
Forfeited	(235,957)	$ 2.04	$1.45 - $2.29
Vested	(8,149,901)	$ 1.70	$1.44 - $2.29
Canceled and replaced with restricted stock awards	(397,500)	$ 2.13	$1.99 - $2.13
Balance at December 31, 2021	—	$ —	

In connection with the IPO and Organizational Transactions, 1,771,767 units of unvested Profits Interests that contained a performance condition were modified to accelerate their vesting in return for exchanging such awards for shares of the Company's Class A common stock upon an IPO. Concurrent with the IPO, such Profits Interests holders exchanged their then issued 3,201,220 Class A Units of Rani LLC for 1,655,409 shares of the Company's Class A common stock. This resulted in an improbable to improbable modification and resulted in the remeasurement of the related compensation cost at the fair value of these Profits Interests on the modification date in July 2021. As a result of the modification and based on the performance condition being satisfied with the IPO and Organizational Transactions in July 2021, the Company recognized an incremental equity-based compensation expense of $3.0 million for the year ended December 31, 2021. Profits Interests of 397,500 still subject to service based vesting, but where the performance condition associated with the IPO and Organizational Transactions had been met, were exchanged for 137,691 RSAs

with the same remaining service vesting conditions. All Profits Interests no longer subject to a vesting condition and that did not participate in the exchange, were converted into 1,545,522 Class A Units of Rani LLC.

Upon the IPO and Organizational Transactions, the performance condition was met for all Profits Interest no longer subject to a service based vesting condition and the Company recorded an additional $14.0 million of equity-based compensation expense.

Valuation of Awards

The Company uses the Black-Scholes option pricing model to estimate the fair value of each stock option award on the date of grant. The assumptions and estimates are as follows:

- *Expected term* - The expected term represents the period of time that stock option awards are expected to remain outstanding. The Company estimates the expected term as the midpoint between actual or expected vesting date and the contractual term.
- *Expected volatility* - The expected volatility was derived from the historical stock volatilities of peer public companies within the Company's industry that are considered to be comparable businesses over a period equivalent to the expected term of the stock option awards, since there has been limited trading history of the Company's stock.
- *Risk-free interest rate* - The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the date of grant for zero-coupon U.S. Treasury notes with maturities approximately equal to the stock option awards' expected term.
- *Expected dividend yield* - The expected dividend yield is zero as the Company has no plans to make dividend payments.

The following table sets forth the weighted average assumptions used in estimating the fair value of stock option awards on the grant date:

	Year Ended December 31, 2021
Expected volatility	81.7 %
Risk-free interest rate	1.07 %
Expected term (in years)	6.2
Expected dividend yield	— %

Equity-Based Compensation Expense

The following table summarizes the components of equity-based compensation expense resulting from the grant of stock options, RSUs, RSAs, Profits Interests, and options for common units, recorded in the Company's consolidated statement of operations and comprehensive loss (in thousands):

	Year Ended December 31,	
	2021	2020
Research and development	$ 8,156	$ —
General and administrative	14,439	—
Total equity-based compensation	$ 22,595	$ —

10. Commitments and Contingencies

Leases

Rani LLC pays for the use of its office, laboratory and manufacturing facility in San Jose, California as part of the RMS-ICL Service Agreement (Note 6), which is accounted for as an operating lease. The lease requires for certain payments of real estate taxes, insurance and certain common area maintenance costs in addition to future minimum lease payments. The RMS-ICL Service Agreement has a twelve month term and will automatically renew for successive twelve month periods unless RMS or ICL terminate occupancy under the RMS-ICL Service Agreement upon six months notice. As of December 31, 2021, no renewal option periods were included in the estimated minimum lease terms as the options were not deemed to be reasonably assured to be exercised. Total operating lease expense incurred with ICL was $0.8 million for each of the years ended December 31, 2021 and 2020.

Legal Proceedings

In the ordinary course of business, the Company may be subject to legal proceedings, claims and litigation as the Company operates in an industry susceptible to patent legal claims. The Company accounts for estimated losses with respect to legal proceedings and claims when such losses are probable and estimable. Legal costs associated with these matters are expensed when incurred. The Company is currently involved in several opposition proceedings at the European Patent Office, all of which were asserted against us by Novo Nordisk AS. The ultimate outcome of this matter as a loss is not probable nor is there any amount that is reasonably estimable. However, the outcome of the opposition proceedings could impact the Company's ability to commercialize its products in Europe.

11. Long-Term Debt

Convertible Notes

In September 2020, Rani LLC entered into a secured convertible loan agreement (the "Loan and Security Agreement" or the "Loan") with Avenue Venture Opportunity Fund L.P. ("Avenue"), whereby Rani LLC could borrow up to a maximum of $10.0 million, with $3.0 million being immediately available. The remaining $7.0 million available could be borrowed if Avenue received evidence of at least $40.0 million of net cash proceeds from the sale or issuance of securities to existing investors, or upfront payments in connection with strategic partnerships by March 31, 2021. Rani LLC opted not to draw down this additional amount, and the option has since expired undrawn. In exchange for access to this facility, Rani LLC agreed to issue warrants exercisable into Rani LLC preferred units amounting to $0.9 million; Rani LLC subsequently granted 118,929 Series E warrants with an exercise price of $7.1471 per unit (Note 7).

The Loan was interest only until September 2021 and bore interest at a variable rate of interest per annum, compounded monthly until its maturity date of September 2023, at which time all outstanding principal and interest would have become due and payable in cash if not already converted. Rani LLC's obligations under the Loan were secured by a first priority security interest in substantially all of its assets. The Loan included customary events of default, including instances of a material adverse change in the Rani LLC's operations, which may require prepayment of the outstanding Loan.

At December 31, 2020, the effective interest rate on the Loan was 20.56%. At December 31, 2021, there was no Loan outstanding.

The Loan contained a contingent interest feature in the event of default that was not clearly and closely related to the underlying note and met the definition of a derivative. The Company concluded that the fair value of this derivative was insignificant for all periods presented.

The Loan and Security Agreement contained negative and affirmative covenants, including covenants that restricted the ability of Rani LLC and its current and future subsidiaries' ability to, among other things, incur or prepay existing indebtedness, pay dividends or distributions, dispose of assets, engage in mergers and consolidations, make acquisitions or other investments, and make changes in the nature of the business. The Loan and Security Agreement also contained certain objective events of default, including, without limitation, nonpayment of principal, interest or other obligations, violation of the covenants, insolvency, court ordered judgments, and change in control. The Loan and Security Agreement required Rani LLC to provide audited consolidated financial statements to the lenders no later than 120 days after year-end.

In July 2021, the Company repaid, in full, the $3.0 million of principal and approximately $0.5 million of final payment and fees under the Loan and Security Agreement resulting in a $0.7 million loss on extinguishment of debt recorded in the Company's consolidated statement of operations and comprehensive loss for the year ended December 31, 2021. Avenue Capital also waived their right to convert the outstanding principal into Series E Preferred Units.

Paycheck Protection Program Loan

In April 2020, the Company received a $1.3 million small business loan under the Paycheck Protection Program ("PPP Loan") as part of the CARES Act. The PPP Loan was due to mature in April 2022, and bore interest at a rate of 1.0% per annum. The PPP Loan was evidenced by a promissory note, which contained customary events of default relating to, among other things, payment defaults and breaches of representations and warranties. The PPP Loan could be prepaid at any time prior to maturity with no prepayment penalties.

The Company used all proceeds from the PPP Loan to retain employees, maintain payroll and make lease and utility payments. In September 2021, the Company repaid in full the $1.3 million of principal and interest related to the PPP Loan.

12. Income Taxes

Income tax expense consisted of the following for the years ended (in thousands):

	December 31,	
	2021	2020
Current		
Federal	$ 38	$ 34
State	3	1
Total current tax expense	$ 41	$ 35
Deferred		
Federal	$ —	$ —
State	—	—
Total deferred tax expense	$ —	$ —
Income tax expense	$ 41	$ 35

The effective tax rate for the years ended December 31, 2021 and 2020 is different from the federal statutory rate primarily due to the valuation allowance against deferred tax assets as a result of insufficient sources of income and pass-through loss not subject to income tax. A reconciliation between the Company's effective tax rate and the applicable U.S. federal statutory income tax rate is summarized as follows:

	Year Ended December 31,	
	2021	2020
Federal statutory rate	21.0 %	21.0 %
State tax, net of federal tax benefit	1.0	(0.3)
Loss from non-controlling interest	(5.3)	—
Rate effect from pass-through entity	(12.6)	(21.9)
Permanent items	(0.1)	—
Research and development credits	2.9	3.8
Uncertain tax positions	(0.4)	(0.6)
Change in valuation allowance	(6.6)	(2.2)
Effective tax rate	(0.1) %	(0.2) %

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes. The components that comprise the Company's net deferred taxes consist of the following (in thousands):

	Year Ended December 31,	
	2021	2020
Deferred tax assets		
Investment in partnership	$ 25,226	$ —
Net operating loss carryforward	1,952	—
Research and development credits	1,458	350
Accruals	55	32
Total deferred tax assets	28,691	382
Valuation allowance	(28,671)	(369)
Total deferred tax assets, net of valuation allowance	20	13
Deferred tax liability		
Prepaid expenses	(20)	(13)
Net deferred tax asset	$ —	$ —

The Company determines its valuation allowance on deferred tax assets by considering both positive and negative evidence in order to ascertain whether it is more likely than not that deferred tax assets will be realized. Realization of deferred tax assets is dependent upon the generation of future taxable income, if any, the timing and amount of which are uncertain. Because of the Company's recent history of operating losses, the Company believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not likely to be realized and, accordingly, has recognized a full valuation allowance on its deferred tax assets. The valuation allowance increased by $28.3 million and $0.4 million for the years ended December 31, 2021 and 2020, respectively, primarily due to the increase in the Company's net operating losses ("NOL") during the period.

As of December 31, 2021, the Company had the following tax attribute carryforwards that will expire on various dates as follows:

	Amount (in thousands)	Expiration Years
Net operating losses, federal (post December 31, 2017)	$ 6,977	Indefinite
Net operating loss, state (definite)	6,974	2041
Research and development tax credits, federal	1,021	2040 - 2041
Research and development tax credits, state	963	Indefinite

Pursuant of Internal Revenue Code ("IRC") Sections 382 and 383, annual use of the Company's research and development credit carryforwards may be limited in the event accumulative change in ownership of more than 50% occurs within a three-year period. As of December 31, 2021, the Company has not performed an IRC Section 382 or 383 analysis. If a change in ownership were to have occurred, additional tax credit carryforwards could be eliminated or restricted. If eliminated, the related asset would be removed from the deferred tax asset schedule with a corresponding reduction in the valuation allowance.

The Company is subject to United States federal and California income taxes and is not currently under examination by any federal or state taxing authorities. The federal and California returns for tax years 2017 through 2021 remain open to examination.

The following table summarizes the changes in the amount of the unrecognized tax benefits (in thousands):

	Year Ended December 31,	
	2021	2020
Balance at the beginning of the year	$ 104	$ —
Gross increase related to current year positions	254	104
Balance at the end of the year	$ 358	$ 104

Included in the balance of unrecognized tax benefits at December 31, 2021, is $0.3 million that if recognized would impact the Company's income tax benefit and effective tax rate. The Company does not expect any significant increases or decreases in its unrecognized tax benefits within the next twelve months.

Tax Receivable Agreement

The Company is party to a TRA with the Continuing LLC Owners (Note 2). As there have been no transactions that would trigger a liability under this agreement, the Company has not recognized any deferred tax assets or liabilities related to this agreement as of December 31, 2021.

13. Net Loss Per Share

The following table sets forth the computation of basic and diluted net loss per Class A common share attributable to Rani Holdings (in thousands, except per share data):

	Year Ended December 31, 2021
Numerator:	
Net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc.	$ (8,331)
Denominator:	
Weighted average Class A common share outstanding—basic and diluted	19,534
Net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc.—basic and diluted	$ (0.43)

The following table shows the total outstanding securities considered anti-dilutive and therefore excluded from the computation of diluted net loss per Class A common share attributable to Rani Holdings:

	Year Ended December 31,
	2021
Paired Interests	29,290,391
Stock options	2,300,819
Class A Units of Rani LLC exchangeable for Class A common stock	1,545,522
Restricted stock units	596,500
Restricted stock awards	113,173
	33,846,405

Shares of Class B Common Stock do not share in the Company's earnings and are not participating securities. Accordingly, separate presentation of loss per share of Class B common stock under the two-class method has not been provided. The outstanding shares of Class B Common Stock were determined to be anti-dilutive for the year ended December 31, 2021. Therefore, they are not included in the computation of net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc.

14. Subsequent Events

In March 2022, Rani LLC amended the Rani LLC-ICL Service Agreement, pursuant to which Rani LLC has a right to occupy certain facilities leased by ICL in Milpitas, California and San Antonio, Texas ("Occupancy Services") for general office, research and development, and light manufacturing. The Occupancy Services in Milpitas, California have a term until February 2023, with the potential for two annual renewals, subject to approval by ICL upon a nine months' notice of renewal prior to the end of the lease term, and the Occupancy Services in San Antonio, Texas continue until either party gives six months notice of termination. The future aggregate minimum lease payments associated with the Occupancy Services total $0.4 million.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(e) and 15(d)-15(e) under the Exchange Act as of the end of the period covered by this Annual Report on Form 10-K. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective at a reasonable assurance level as of December 31, 2021.

Management's Annual Report on Internal Control Over Financial Reporting

This annual report does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

Changes in Internal Control over Financial Reporting

In 2021, we implemented a stock plan administration system. As a result of this implementation, certain internal controls over financial reporting have been automated, modified or implemented to address the new environment associated with this type of system.

Other than the implementation of a stock plan administration system noted above, there have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during the year ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, believes that our disclosure controls and procedures over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost–effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions That Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item and not set forth below is incorporated by reference to the information set forth in the sections titled "—Election of Directors" and "Information Regarding the Board of Directors and Corporate Governance" in our definitive Proxy Statement for our 2022 Annual Meeting of Stockholders (the "Proxy Statement") to be filed with the SEC within 120 days after December 31, 2021.

We have adopted a written code of business conduct and ethics that applies to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The code of business conduct and ethics is available on our website at https://www.ranitherapeutics.com/ under the Corporate Governance section of our Investors page. We will promptly disclose on our website (i) the nature of any amendment to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals, the name of such person who is granted the waiver and the date of the waiver.

Item 11. Executive Compensation

The information required by this Item is incorporated by reference to the information set forth in the section titled "—Executive Compensation" in our Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item is incorporated by reference to the information in the section titled "Security Ownership of Certain Beneficial Owners and Management" in our Proxy Statement.

The information required by Item 201(d) of Regulation S-K will be set forth in the section headed "Executive Compensation" in our Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item is incorporated by reference to the information set forth in the sections titled "Transactions with Related Persons" and "—Independence of The Board of Directors" in our Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information required by this Item is incorporated by reference to the information set forth in the section titled "Ratification of Selection of Independent Registered Public Accounting Firm" in our Proxy Statement.

Item 15. Exhibits and Financial Statement Schedules

(a) Documents filed as part of this report.

1. Financial Statements.

The financial statements and reports of independent registered public accounting firm are filed as part of this Annual Report (see "Index to Consolidated Financial Statements" at Item 8).

2. Financial Statement Schedules

No financial statement schedules are included because the information is either provided in the consolidated financial statements, is not required under the instructions or is immaterial, and such schedules, therefore have been omitted.

3. Exhibits.

The following is a list of all exhibits and financial statement schedules filed or furnished as part of this report:

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation of the Registrant as currently in effect (incorporated by reference to Exhibit 3.1 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 26, 2021).
3.2	Amended and Restated Bylaws of the Registrant as currently in effect (incorporated by reference to Exhibit 3.4 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
4.1	Specimen Class A common stock certificate of the Registrant (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 26, 2021).
4.2*	Description of Securities
10.1*	Tax Receivable Agreement, effective as of August 3, 2021
10.2*	Class B Unit Exchange Agreement, effective as of August 3, 2021
10.3*	Registration Rights Agreement, effective as of August 3, 2021
10.4*	Fifth Amended and Restated Limited Liability Company Agreement of Rani Therapeutics, LLC, effective as of August 3, 2021
10.5+	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-1, filed with the SEC on July 9, 2021).
10.6+	Rani Therapeutics, LLC 2016 Equity Incentive Plan and forms of agreement thereunder (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.7+	Rani Therapeutics Holdings, Inc. 2021 Equity Incentive Plan (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 26, 2021).
10.8+*	Forms of Agreement under the Rani Therapeutics Holdings, Inc. 2021 Equity Incentive Plan.
10.9+	Rani Therapeutics Holdings, Inc. 2021 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 26, 2021).
10.10+	Rani Therapeutics Holdings, Inc. Severance and Change in Control Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1, filed with the SEC on July 9, 2021).
10.11+	Form of Participation Agreement under the Rani Therapeutics Holdings, Inc. Severance and Change in Control Plan (incorporated by reference to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1, filed with the SEC on July 9, 2021).
10.12+	Rani Therapeutics Holdings, Inc. Non-Employee Director Compensation Policy (incorporated by reference to Exhibit 10.11 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 16, 2021).
10.13+	Service Agreement, by and between Rani Therapeutics, LLC and InCube Labs, LLC, dated January 1, 2021 (incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.14+*	Amendment No. 1 to Service Agreement, dated March 21, 2022, by and between Rani Therapeutics, LLC and InCube Labs, LLC.
10.15+	Service Agreement, by and between Rani Management Services, Inc. and InCube Labs, LLC, dated January 1, 2021 (incorporated by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.16+	Amended and Restated Exclusive License Agreement, by and between Rani Therapeutics, LLC and InCube Labs, LLC, dated June 22, 2021 (incorporated by reference to Exhibit 10.17 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).

10.17+	Non-Exclusive License Agreement, by and between Rani Therapeutics, LLC and InCube Labs, LLC, dated June 22, 2021 (incorporated by reference to Exhibit 10.18 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.18+	Intellectual Property Agreement, by and between Rani Therapeutics, LLC and Mir A. Imran, dated June 22, 2021 (incorporated by reference to Exhibit 10.19 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.19+	Amended and Restated Employment Agreement, dated June 17, 2021, by and between Rani Management Services, Inc. and Talat Imran (incorporated by reference to Exhibit 10.23 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.20+	Amended and Restated Employment Agreement, dated June 17, 2021, by and between Rani Management Services, Inc. and Mir Hashim (incorporated by reference to Exhibit 10.24 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
10.21+	Amended and Restated Employment Agreement, dated June 17, 2021, by and between Rani Management Services, Inc. and Svai Sanford (incorporated by reference to Exhibit 10.25 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
21.1	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 to the Registrant's Registration Statement on Form S-1, as amended, filed with the SEC on July 9, 2021).
23.1	Consent of Independent Registered Public Accounting Firm.
24.1*	Power of Attorney. Reference is made to the signature page hereto.
31.1*	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*†	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.

† The certifications attached as Exhibit 32.1 which accompanies this Annual Report on Form 10-K, are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of this Form 10-K), irrespective of any general incorporation language contained in such filing.

\+ Indicates management contract or compensatory plan.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Rani Therapeutics Holdings, Inc.

Date: March 30, 2022

By: /s/ Talat Imran

Talat Imran

Chief Executive Officer
(Principal Executive Officer)

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Talat Imran and Svai Sanford, and each of them, his true and lawful attorneys-in-fact, each with full power of substitution, for him in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report on Form 10-K has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Talat Imran Talat Imran	Chief Executive Officer and Director *(Principal Executive Officer)*	March 30, 2022
/s/ Svai Sanford Svai Sanford	Chief Financial Officer *(Principal Financial and Accounting Officer)*	March 30, 2022
/s/ Mir Imran Mir Imran	Chairman of the Board	March 30, 2022
/s/ Dennis Ausiello Dennis Ausiello	Director	March 30, 2022
/s/ Lyn Baranowski Lyn Baranowski	Director	March 30, 2022
/s/ Jean-Luc Butel Jean-Luc Butel	Director	March 30, 2022
/s/ Laureen DeBuono Laureen DeBuono	Director	March 30, 2022
/s/ Andrew Farquharson Andrew Farquharson	Director	March 30, 2022
/s/ Maulik Nanavaty Maulik Nanavaty	Director	March 30, 2022
/s/ Lisa Rometty Lisa Rometty	Director	March 30, 2022

Exhibit 4.2

Description of Registrant's Securities Registered Pursuant to Section 12 of the Securities and Exchange Act of 1934

The following is a description of the Class A common stock, par value $0.0001 per share (the "Class A common stock") of Rani Therapeutics Holdings, Inc. ("Rani", the "Company", "we", "our" or "us") which is our only class of security registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The following also contains a description of our Class B common stock, par value $0.0001 per share of the Company (the "Class B common stock"), which is not registered pursuant to Section 12 of the Exchange Act but Class B common stockholders who are members of Rani Therapeutics, LLC ("Rani LLC") have the right to exchange their membership interests of Rani LLC (the "LLC Interests") (with automatic cancellation of an equal number of shares of Class B common stock) for shares of our Class A common stock. The description of the Class B common stock is necessary to understand the material terms of the Class A common stock. The following also contains a description of our Class C common stock, par value $0.0001 per share (the "Class C common stock") and our preferred stock, par value $0.0001 per share (the "preferred stock"). As of March 28, 2022, there are no shares of Class C common stock and no shares of preferred stock outstanding. The description of the Class C common stock and the preferred stock is necessary to understand the terms of the Class A common stock as the issuance of Class C common stock or preferred stock could have an adverse impact on the market price of the Class A common stock.

The following summary description of our capital stock is based on the provisions of our amended and restated certificate of incorporation, as currently in effect, as well as our amended and restated bylaws, as currently in effect, and the applicable provisions of the Delaware General Corporation Law (the "DGCL"). This information is qualified entirely by reference to the applicable provisions of our amended and restated certificate of incorporation, amended and restated bylaws, and the DGCL. Our amended and restated certificate of incorporation and amended and restated bylaws have previously been filed as exhibits with the Securities and Exchange Commission.

Authorized Capital Stock

Our authorized capital stock consists of 800,000,000 shares of Class A common stock, par value $0.0001, 40,000,000 shares of Class B common stock, par value $0.0001 per share, 20,000,000 shares of Class C common stock, par value $0.0001 per share and 20,000,000 shares of preferred stock, par value $0.0001 per share.

Class A Common Stock

Voting Rights

Holders of our Class A common stock are entitled to cast one vote per share. Holders of our Class A common stock will not be entitled to cumulate their votes in the election of directors. Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all holders of Class A common stock and Class B common stock present in person or represented by proxy, voting together as a single class. Except as otherwise provided by law, amendments to the amended and restated certificate of incorporation must be approved by a majority or, in some cases, a super-majority of the combined voting power of all shares of Class A common stock and Class B common stock, voting together as a single class.

Dividends and Other Distributions

Subject to preferences that may be applicable to any then outstanding preferred stock, any dividend or distribution paid or payable to the holders of shares of Class A common stock shall be paid pro rata, on an equal priority, pari passu basis; provided, however, that if a dividend or distribution is paid in the form of Class A common stock (or rights to acquire shares of Class A common stock), then the holders of the Class A common stock shall receive Class A common stock (or rights to acquire shares of Class A common stock).

Distribution on Dissolution

In the event of our liquidation, dissolution or winding up, upon the completion of the distributions required with respect to any series of redeemable convertible preferred stock that may then be outstanding, our remaining assets legally available for distribution to stockholders shall be distributed on an equal priority, pro rata basis to the holders

of Class A common stock and Class C common stock, unless different treatment is approved by the majority of the voting power of the outstanding shares of Class A common stock and Class B common stock.

Rights and Preferences

No shares of Class A common stock are subject to redemption or have preemptive rights to purchase additional shares of Class A common stock. Holders of shares of our Class A common stock do not have subscription, redemption or conversion rights. There are no redemption or sinking fund provisions applicable to the Class A common stock. The rights, preferences and privileges of the holders of our Class A common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

Class B Common Stock

Shares of Class B common stock will only be issued in the future to the extent necessary to maintain a one-to-one ratio between the number of LLC Interests held by our Class B common stockholders who are members of Rani LLC (the "Continuing LLC Owners") and the number of shares of Class B common stock issued to the Continuing LLC Owners. Shares of Class B common stock are transferable only together with LLC Interests. Shares of Class B common stock will be cancelled on a one-for-one basis if we, at the election of the Continuing LLC Owners, redeem or exchange their LLC Interests pursuant to the terms of the amended and restated limited liability company agreement of Rani LLC, as currently in effect (the "Rani LLC Agreement"), a copy of which has previously been filed as an exhibit with the Securities and Exchange Commission.

Voting Rights

Holders of Class B common stock are entitled to cast 10 votes per share until the date on which the holders of at least two-thirds (2/3) of the voting power of the Class B common stock, voting as a single class, affirmatively vote to retire all outstanding shares of Class B common stock (the "Final Conversion Date") and thereafter, one vote per share, with the number of shares of Class B common stock held by each Continuing LLC Owner being equivalent to the number of LLC Interests held by such Continuing LLC Owner. Holders of our Class B common stock are not entitled to cumulate their votes in the election of directors. The voting power afforded to Continuing LLC Owners by their shares of Class B common stock will be automatically and correspondingly reduced as they redeem their LLC Interests because an equal number of their shares of Class B common stock will be cancelled.

Generally, all matters to be voted on by stockholders must be approved by a majority (or, in the case of election of directors, by a plurality) of the votes entitled to be cast by all Class A and Class B stockholders present in person or represented by proxy, voting together as a single class. Except as otherwise provided by law, amendments to the amended and restated certificate of incorporation must be approved by a majority or, in some cases, a super-majority of the combined voting power of all shares of Class A common stock and Class B common stock, voting together as a single class. There will be a separate vote of the Class B common stock in the following circumstances:

- If we amend, alter or repeal any provision of the amended and restated certificate of incorporation or the amended and restated bylaws in a manner that modifies the voting, conversion or other powers, preferences, or other special rights or privileges, or restrictions of the Class B common stock;

- If we reclassify any of outstanding shares of Class A common stock or Class C common stock into shares having rights as to dividends or liquidation that are senior to the Class B common stock or, in the case of Class A common stock, the right to more than one vote for each share thereof and, in the case of Class C common stock, the right to have any vote for any share thereof, except as required by law; or

- If we authorize any shares of preferred stock with rights as to dividends or liquidation that are senior to the Class B common stock or the right to more than one vote for each share thereof.

Dividend Rights and Other Distributions

Pursuant to our amended and restated certificate of incorporation, each share of Class B common stock will be retired, and all rights with respect to such shares shall cease and terminate, automatically upon the earlier to occur of

(a) the occurrence of a Transfer (as defined therein), other than a Permitted Transfer (as defined therein) of such share of Class B common stock and (b) on the Final Conversion Date.

Distribution on Dissolution

On our liquidation, dissolution or winding up, holders of Class B common stock will not be entitled to receive any distribution of our assets.

Transfers

Pursuant to the Rani LLC Agreement, each holder of Class B common stock agrees that: (i) the holder will not transfer any shares of Class B common stock to any person unless the holder transfers an equal number of LLC Interests to the same person; and (ii) in the event the holder transfers any LLC Interests to any person, the holder will transfer an equal number of shares of Class B common stock to the same person.

Rights and Preferences

No shares of Class B common stock have preemptive rights to purchase additional shares of Class B common stock. Holders of shares of our Class B common stock do not have subscription, redemption or conversion rights. There will be no redemption or sinking fund provisions applicable to the Class B common stock.

Class C Common Stock

Voting Rights

Holders of our Class C common stock are not entitled to vote on any matter that is submitted to a vote of the stockholders, except as otherwise required by law.

Dividend Rights and Other Distributions

Any dividend or distribution paid or payable to the holders of shares of Class C common stock shall be paid pro rata, on an equal priority, pari passu basis; provided, however, that if a dividend or distribution is paid in the form of Class C common stock (or rights to acquire shares of Class C common stock), then the holders of the Class C common stock shall receive Class C common stock (or rights to acquire shares of Class C common stock).

Distribution on Dissolution

In the event of our liquidation, dissolution or winding-up, upon the completion of the distributions required with respect to any series of redeemable convertible preferred stock that may then be outstanding, our remaining assets legally available for distribution to stockholders shall be distributed on an equal priority, pro rata basis to the holders of Class A common stock and Class C common stock, unless different treatment is approved by the majority of the voting power of the outstanding shares of Class A common stock and Class B common stock.

Preferred Stock

Our amended and restated certificate of incorporation provides that our board of directors has the authority, without action by the stockholders, to designate and issue up to 20,000,000 shares of preferred stock in one or more classes or series and to fix the powers, rights, preferences, privileges and restrictions of each class or series of preferred stock, including dividend rights, conversion rights, voting rights, redemption privileges, liquidation preferences and the number of shares constituting any class or series, which may be greater than the rights of the holders of the common stock.

The issuance of preferred stock could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from seeking to acquire, a majority of our outstanding voting stock. Additionally, the issuance of preferred stock may adversely affect the holders of our Class A common stock by restricting dividends on the Class A common stock, diluting the voting power of the Class A common stock or subordinating the liquidation rights of the Class A common stock. As a result of these or other factors, the issuance of preferred stock could have an adverse impact on the market price of our Class A common stock.

Anti-Takeover Provisions of Delaware Law and Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Certain provisions of Delaware law and certain provisions that are included in our amended and restated certificate of incorporation and amended and restated bylaws summarized below may be deemed to have an anti-takeover effect and may delay, deter, or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might result in a premium being paid over the market price for the shares held by stockholders.

Preferred Stock

Our amended and restated certificate of incorporation contains provisions that permit our board of directors to issue, without any further vote or action by the stockholders, shares of preferred stock in one or more series and, with respect to each such series, to fix the number of shares constituting the series and the designation of the series, the voting rights (if any) of the shares of the series and the powers, preferences, or relative, participation, optional, and other special rights, if any, and any qualifications, limitations, or restrictions, of the shares of such series.

Classified Board

Our amended and restated certificate of incorporation provides that from and after the Final Conversion Date, our board of directors be divided into three classes, designated Class I, Class II and Class III. Each class is an equal number of directors, as nearly as possible, consisting of one-third of the total number of directors constituting the entire board of directors. The term of initial Class I directors shall terminate on the first annual meeting of the stockholders after the Final Conversion Date, the term of the initial Class II directors shall terminate on the second annual meeting of the stockholders after the Final Conversion Date, and the term of the initial Class III directors shall terminate on the third annual meeting of the stockholders after the Final Conversion Date. At each annual meeting of stockholders beginning after the Final Conversion Date, successors to the class of directors whose term expires at that annual meeting will be elected for a three-year term.

Removal of Directors

Our amended and restated certificate of incorporation provides that stockholders may only remove a director for cause by a vote of no less than a majority of the total voting power of the shares present in person or by proxy at the meeting and entitled to vote.

Director Vacancies

Our amended and restated certificate of incorporation authorizes only our board of directors to fill vacant directorships.

No Cumulative Voting

Our amended and restated certificate of incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

Special Meetings of Stockholders

Our amended and restated certificate of incorporation and amended and restated bylaws provide that, except as otherwise required by law, special meetings of the stockholders may be called only (i) prior to the Final Conversion Date, by the holders of at least 25% of the voting power of our Class A common stock and Class B common stock, voting together as a single class; (ii) by a resolution adopted by a majority of our board of directors; (iii) by the chairperson of our board of directors; or (iv) by our Chief Executive Officer.

Advance Notice Procedures for Director Nominations

Our amended and restated bylaws provides that stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders must provide timely notice thereof in writing. To be timely, a stockholder’s notice generally will have to be delivered to and received at our principal executive offices before notice of the meeting is issued by the secretary of the Company, with such notice being served not later than the

close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting. Although the amended and restated bylaws does not give the board of directors the power to approve or disapprove stockholder nominations of candidates to be elected at an annual meeting, the amended and restated bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of the Company.

Action by Written Consent

Our amended and restated certificate of incorporation and amended and restated bylaws provide that, after the Final Conversion Date, any action to be taken by the stockholders must be affected at a duly called annual or special meeting of stockholders and may not be affected by written consent.

Authorized but Unissued Shares

Our authorized but unissued shares of Class A common stock and preferred stock will be available for future issuances without stockholder approval, except as required by the listing standards of the Nasdaq Stock Market, and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved Class A common stock and preferred stock could render more difficult or discourage an attempt to obtain control of the Company by means of a proxy contest, tender offer, merger, or otherwise.

Choice of Forum

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: (i) any derivative action or proceeding brought on our behalf; (ii) any action or proceeding asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, officers, or other employees to us or our stockholders; (iii) any action or proceeding asserting a claim against us or any of our current or former directors, officers, or other employees, arising out of or pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; (iv) any action or proceeding to interpret, apply, enforce, or determine the validity of our amended and restated certificate of incorporation or our amended and restated bylaws; (v) any action or proceeding as to which the DGCL confers jurisdiction to the Court of Chancery of the State of Delaware; and (vi) any action asserting a claim against us or any of our directors, officers, or other employees governed by the internal affairs doctrine, in all cases to the fullest extent permitted by law and subject to the court's having personal jurisdiction over the indispensable parties named as defendants. These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act of 1933, as amended (the "Securities Act") creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation further provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendant to such complaint.

These exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, or other employees and may discourage these types of lawsuits. Furthermore, the enforceability of similar choice of forum provisions in other companies' certificates of incorporation or bylaws has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find the exclusive forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving such action in other jurisdictions, all of which could seriously harm our business.

Business Combinations with Interested Stockholders

We have elected not to be subject to or governed by Section 203 of the DGCL. Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an "interested stockholder" (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless: (i) prior to such time the board of directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon the closing of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (A) by persons who are directors and also officers of such corporation and (B) by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or (iii) at or subsequent to such time the business combination is approved by the board of directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

Listing

Our Class A common stock is listed on The Nasdaq Global Market under the trading symbol "RANI."

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock is American Stock Transfer & Trust Company, LLC.

Exhibit 10.1

TAX RECEIVABLE AGREEMENT

between

RANI THERAPEUTICS HOLDINGS, INC.

and

THE PERSONS NAMED HEREIN

Dated as of August 3, 2021

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TAX RECEIVABLE AGREEMENT

This **TAX RECEIVABLE AGREEMENT** (this "**Agreement**"), is dated as of August 3, 2021, and is between Rani Therapeutics Holdings, Inc., a Delaware corporation, each of the undersigned parties, and each of the other persons from time to time that becomes a party hereto (each, excluding the Corporate Taxpayer and OpCo (each as defined below), a "**TRA Party**" and together the "**TRA Parties**").

RECITALS

WHEREAS, the TRA Parties directly or indirectly hold Class A Common Units (the "**Units**") in Rani Therapeutics, LLC, a Delaware limited liability company ("**OpCo**"), which is classified as a partnership for U.S. federal income Tax purposes;

WHEREAS, after the Pre-IPO Exchanges (as defined in the LLC Agreement), the Corporate Taxpayer will be the sole managing member of OpCo, and will hold, directly and/or indirectly, Units;

WHEREAS, from time to time following the Lock-Up Period (as defined in the LLC Agreement), each holder of Units (other than the Corporate Taxpayer) has the right to require OpCo to redeem (a "**Redemption**") all or a portion of such holder's Units for, at the Corporate Taxpayer's election, cash or shares of Class A common stock (the "**Class A Shares**") of the Corporate Taxpayer, in either case contributed to OpCo by the Corporate Taxpayer, provided that, at the election of the Corporate Taxpayer in its sole discretion, the Corporate Taxpayer may effect a direct exchange (a "**Direct Exchange**") of such cash or Class A Shares for such Units, all in accordance with and subject to the provisions of the LLC Agreement (as defined below);

WHEREAS, OpCo and each of its direct and indirect Subsidiaries (as defined below) treated as a partnership for U.S. federal income Tax purposes currently have and will have in effect an election under Section 754 of the Code, for each Taxable Year (as defined below) that includes the IPO Date and for each Taxable Year in which a taxable acquisition (including a deemed taxable acquisition under Section 707(a) of the Code) of Units by the Corporate Taxpayer or by OpCo from any of the TRA Parties (an "**Exchanging Holder**") for Class A Shares and/or other consideration occurs;

WHEREAS, the income, gain, loss, expense and other Tax items of the Corporate Taxpayer may be affected by the (i) Basis Adjustments and (ii) Imputed Interest (each as defined below) (collectively, the "**Tax Attributes**");

WHEREAS, the parties to this Agreement desire to provide for certain payments and make certain arrangements with respect to the effect of the Tax Attributes on the liability for Taxes (as defined below) of the Corporate Taxpayer.

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth herein, and intending to be legally bound hereby, the parties hereto agree as follows:

ARTICLE I

DEFINITIONS

SECTION 1.1 Definitions. As used in this Agreement, the terms set forth in this Article I shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined).

"**Actual Tax Liability**" means, with respect to any Taxable Year, an amount, not less than zero, equal to the actual liability for Taxes of (i) the Corporate Taxpayer and (ii) without duplication, OpCo (and OpCo's applicable subsidiaries), but in the case of this clause (ii) only with respect to Taxes imposed on OpCo (and OpCo's applicable subsidiaries) and allocable to the Corporate taxpayer; provided, that the actual liability for Taxes described in clauses (i) and (ii) shall be calculated (a) using the Assumed Rate, solely for purposes of calculating the

U.S. state and local Actual Tax Liability of the Corporate Taxpayer, and (b) assuming, solely for purposes of calculating the liability for U.S. federal income Taxes, in order to prevent double counting, that U.S. state and local Taxes are not deductible by the Corporate Taxpayer for U.S. federal income Tax purposes.

"**Affiliate**" means, with respect to any Person, any other Person that directly or indirectly, through one or more intermediaries, Controls, is Controlled by, or is under common Control with, such first Person.

"**Agreed Rate**" means a per annum rate of the lesser of (i) 6.5% and (ii) LIBOR plus 100 basis points.

"**Agreement**" has the meaning set forth in the Preamble to this Agreement.

"**Amended Schedule**" has the meaning set forth in Section 2.3(b) of this Agreement.

"**Assumed Rate**" means, with respect to any Taxable Year, the tax rate equal to the sum of the product of (x) OpCo's income and franchise Tax apportionment percentage(s) for each U.S. state and local jurisdiction in which OpCo files income or franchise Tax Returns for the relevant Taxable Year and (y) the highest corporate income and franchise Tax rate(s) for each such U.S. state and local jurisdiction in which OpCo files income or franchise Tax Returns for each relevant Taxable Year; provided, that the Assumed Rate calculated pursuant to the foregoing shall be reduced by the assumed U.S. federal income Tax benefit received by the Corporate Taxpayer with respect to U.S. state and local jurisdiction income and franchise Taxes (with such benefit calculated as the product of (a) the Corporate Taxpayer's marginal U.S. federal income Tax rate for such Taxable Year and (b) the Assumed Rate (without regard to this proviso)).

"**Attributable**" means the portion of any Tax Attribute of the Corporate Taxpayer that is "Attributable" to any present or former holder of Units, other than the Corporate Taxpayer, and shall be determined by reference to the Tax Attributes, under the following principles:

(i) the Basis Adjustments shall be determined separately with respect to each Exchanging Holder, using reasonable methods for tracking such Basis Adjustments, and are Attributable to each Exchanging Holder in an amount equal to the total Basis Adjustments relating to such Units Exchanged by such Exchanging Holder (determined without regard to any dilutive or antidilutive effect of any contribution to or distribution from OpCo after the date of an applicable Exchange, and taking into account any adjustment under Section 743(b) of the Code); and

(ii) any deduction to the Corporate Taxpayer with respect to a Taxable Year in respect of Imputed Interest is Attributable to the Person that is required to include the Imputed Interest in income (without regard to whether such Person is actually subject to Tax thereon).

"**Basis Adjustment**" means the adjustment to the Tax basis of a Reference Asset under Sections 732, 734(b) and/or 1012 of the Code (in situations where, as a result of one or more Exchanges, OpCo becomes an entity that is disregarded as separate from its owner for U.S. federal income Tax purposes) or under Sections 734(b), 743(b) and/or 754 of the Code (in situations where, following an Exchange, OpCo remains in existence as an entity treated as a partnership for U.S. federal income Tax purposes) and, in each case, analogous sections of state, local and foreign Tax laws, as a result of an Exchange and the payments made pursuant to this Agreement in respect of such Exchange. For the avoidance of doubt, the amount of any Basis Adjustment resulting from an Exchange of one or more Units shall be determined without regard to any Pre-Exchange Transfer of such Units and as if any such Pre-Exchange Transfer had not occurred. The amount of any Basis Adjustment shall be determined using the Market Value at the time of the Exchange.

"**Basis Schedule**" has the meaning set forth in Section 2.1 of this Agreement.

"**Beneficial Owner**" means, with respect to any security, a Person who directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares: (i) voting power, which includes the power to vote, or to direct the voting of, such security; and/or (ii) investment power, which includes the power to

dispose of, or to direct the disposition of, such security. The term "**Beneficial Ownership**" shall have a correlative meaning.

"**Board**" means the Board of Directors of the Corporate Taxpayer.

"**Business Day**" means each day that is not a Saturday, Sunday or other day on which banking institutions in San Francisco, California are authorized or required by law to close.

"**Change of Control**" means the occurrence of any of the following events:

(i) any Person or any group of Persons acting together that would constitute a "group" for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended or any successor provisions thereto (excluding (a) a corporation or other entity owned, directly or indirectly, by the stockholders of the Corporate Taxpayer in substantially the same proportions as their ownership of stock of the Corporate Taxpayer or (b) a group of Persons in which one or more Affiliates of the Founder Members, directly or indirectly hold Beneficial Ownership of securities representing more than 50% of the total voting power held by such group) is or becomes the Beneficial Owner, directly or indirectly, of securities of the Corporate Taxpayer representing more than 50% of the combined voting power of the Corporate Taxpayer's then outstanding voting securities; or

(ii) the following individuals cease for any reason to constitute a majority of the number of directors of the Corporate Taxpayer then serving: individuals who, on the IPO Date, constitute the Board and any new director whose appointment or election by the Board or nomination for election by the Corporate Taxpayer's stockholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the IPO Date or whose appointment, election or nomination for election was previously so approved or recommended by the directors referred to in this clause (ii); or

(iii) there is consummated a merger or consolidation of the Corporate Taxpayer with any other corporation or other entity, and, immediately after the consummation of such merger or consolidation, either (x) the Board immediately prior to the merger or consolidation does not constitute at least a majority of the board of directors of the company surviving the merger or, if the surviving company is a Subsidiary, the ultimate parent thereof, or (y) the voting securities of the Corporate Taxpayer immediately prior to such merger or consolidation do not continue to represent or are not converted into more than 50% of the combined voting power of the then outstanding voting securities of the Person resulting from such merger or consolidation or, if the surviving company is a Subsidiary, the ultimate parent thereof; or

(iv) the stockholders of the Corporate Taxpayer approve a plan of complete liquidation or dissolution of the Corporate Taxpayer or there is consummated an agreement or series of related agreements for the sale, lease or other disposition, directly or indirectly, by the Corporate Taxpayer of all or substantially all of the Corporate Taxpayer's assets, other than such sale or other disposition by the Corporate Taxpayer of all or substantially all of the Corporate Taxpayer's assets to an entity at least 50% of the combined voting power of the voting securities of which are owned by stockholders of the Corporate Taxpayer in substantially the same proportions as their ownership of the Corporate Taxpayer immediately prior to such sale.

Notwithstanding the foregoing, except with respect to clause (ii) and clause (iii)(x) above, a "Change of Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of the shares of the Corporate Taxpayer immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in, and voting control over, and own substantially all of the shares of, an entity which owns, directly or indirectly, all or substantially all of the assets of the Corporate Taxpayer immediately following such transaction or series of transactions.

"**Class A Shares**" has the meaning set forth in the Recitals of this Agreement.

"**Code**" means the U.S. Internal Revenue Code of 1986, as amended.

"**Control**" means the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a Person, whether through ownership of voting securities, by contract or otherwise.

"**Corporate Taxpayer**" means Rani Therapeutics Holdings, Inc. and any successor corporation and shall include any Person that is a member of any consolidated Tax Return of which Rani Therapeutics Holdings, Inc. is a member.

"**Corporate Taxpayer Return**" means the U.S. federal income Tax Return of the Corporate Taxpayer filed with respect to Taxes of any Taxable Year, including any consolidated Tax Return.

"**Cumulative Net Realized Tax Benefit**" for a Taxable Year means the cumulative amount of Realized Tax Benefits for all Taxable Years of the Corporate Taxpayer, up to and including such Taxable Year net of the Realized Tax Detriment for the same period. The Realized Tax Benefit and Realized Tax Detriment for each Taxable Year shall be determined based on the most recent Tax Benefit Schedules or Amended Schedules, if any, in existence at the time of such determination; provided, that, for the avoidance of doubt, the computation of the Cumulative Net Realized Tax Benefit shall be adjusted to reflect any applicable Determination with respect to any Realized Tax Benefits and/or Realized Tax Detriments.

"**Default Cap**" has the meaning set forth in Section 3.1(c) of this Agreement.

"**Default Rate**" means a per annum rate of LIBOR plus 500 basis points.

"**Determination**" shall have the meaning ascribed to such term in Section 1313(a) of the Code or any other event (including the execution of IRS Form 870-AD), including a settlement with the applicable Taxing Authority, that establishes the amount of any liability for Tax.

"**Direct Exchange**" has the meaning set forth in the Recitals of this Agreement.

"**Dispute**" has the meaning set forth in Section 7.8(a) of this Agreement.

"**Early Termination Date**" means the date of an Early Termination Notice for purposes of determining the Early Termination Payment.

"**Early Termination Effective Date**" means the date on which an Early Termination Schedule becomes binding pursuant to Section 4.2 of this Agreement.

"**Early Termination Notice**" has the meaning set forth in Section 4.2 of this Agreement.

"**Early Termination Payment**" has the meaning set forth in Section 4.3(b) of this Agreement.

"**Early Termination Rate**" means the lesser of (i) 6.5% and (ii) LIBOR plus 100 basis points.

"**Early Termination Schedule**" has the meaning set forth in Section 4.2 of this Agreement.

"**Exchange**" means any taxable acquisition (including a deemed taxable acquisition under Section 707(a) of the Code) of Units by the Corporate Taxpayer in exchange for Class A Shares and/or other consideration, and any deemed Exchange of Units pursuant to this Agreement.

"**Exchange Date**" means the date of any Exchange.

"**Exchanging Holder**" has the meaning set forth in the Recitals of this Agreement.

"**Expert**" has the meaning set forth in Section 7.9 of this Agreement.

"**Founder Members**" means ICL, Mir Imran, InCube Ventures II, LP, Rani Investment Corp., Biologix Partners, LP, and VH Rani, LP, and their respective Permitted Transferees.

"**Future TRAs**" has the meaning set forth in Section 5.1 of this Agreement.

"**Hypothetical Tax Liability**" means, with respect to any Taxable Year, an amount, not less than zero, equal to the liability for Taxes of (i) the Corporate Taxpayer and (ii) without duplication, OpCo (and OpCo's applicable subsidiaries), but in the case of this clause (ii) only with respect to Taxes imposed on OpCo (and OpCo's applicable subsidiaries) and allocable to the Corporate Taxpayer, in each case using the same methods, elections, conventions, and practices used on the relevant Tax Return of the Corporate Taxpayer, but (a) using the Non-Stepped Up Tax Basis as reflected on the Basis Schedule including amendments thereto for the Taxable Year, (b) excluding any deduction attributable to Imputed Interest attributable to any payment made under this Agreement for the Taxable Year, (c) using the Assumed Rate, solely for purposes of calculating the U.S. state and local Hypothetical Tax Liability of the Corporate Taxpayer, and (d) assuming, solely for purposes of calculating the liability for U.S. federal income Taxes, in order to prevent double counting, that U.S. state and local Taxes are not deductible by the Corporate Taxpayer for U.S. federal income Tax purposes. For the avoidance of doubt, Hypothetical Tax Liability shall be determined without taking into account the carryover or carryback of any Tax item (or portions thereof) that is attributable to a Tax Attribute as applicable.

"**ICL**" means InCube Labs, LLC, a Delaware limited liability company.

"**Imputed Interest**" in respect of a TRA Party shall mean any interest imputed under Section 1272, 1274, 7872 or 483 or other provision of the Code with respect to the Corporate Taxpayer's payment obligations in respect of such TRA Party under this Agreement.

"**Interest Amount**" has the meaning set forth in Section 3.1(b) of this Agreement.

"**IPO**" means the initial public offering of Class A Shares by the Corporate Taxpayer (including any greenshoe related to such initial public offering).

"**IPO Date**" means the initial closing date of the IPO.

"**IRS**" means the U.S. Internal Revenue Service.

"**Joinder**" has the meaning set forth in Section 7.6(a) of this Agreement.

"**LIBOR**" means during any period, the rate which appears on the Bloomberg Page BBAM1 (or on such other substitute Bloomberg page that displays rates at which U.S. dollar deposits are offered by leading banks in the London interbank deposit market), or the rate which is quoted by another source selected by the Corporate Taxpayer as an authorized information vendor for the purpose of displaying rates at which U.S. dollar deposits are offered by leading banks in the London interbank deposit market (an "**Alternate Source**"), at approximately 11:00 a.m., London time, two (2) Business Days prior to the first day of such period as the London interbank offered rate for U.S. dollars having a borrowing date and a maturity comparable to such period or, if such period is longer than one year, the London interbank offered rate for U.S. dollars having a maturity of one year (or if there shall at any time, for any reason, no longer exist a Bloomberg Page BBAM1 (or any substitute page) or any LIBOR Alternate Source, a comparable replacement rate determined by the Corporate Taxpayer at such time, which determination shall be conclusive absent manifest error); provided, that at no time shall LIBOR be less than 0%. If the Corporate Taxpayer has made the determination (such determination to be conclusive absent manifest error) that (i) LIBOR is no longer a widely recognized benchmark rate for newly originated loans in the U.S. loan market in U.S. dollars or (ii) the applicable supervisor or administrator (if any) of LIBOR has made a public statement identifying a specific date after which LIBOR shall no longer be used for determining interest rates for loans in the U.S. loan market in U.S. dollars, then the Corporate Taxpayer shall, subject to the prior written consent of the TRA Party Representative, which consent shall not be unreasonably withheld, conditioned or delayed, establish a replacement interest rate (the "**Replacement Rate**"), after giving due consideration to any evolving or then prevailing conventions for similar loans in the U.S. loan market in U.S. dollars for such alternative benchmark, and including any mathematical or

other adjustments to such benchmark giving due consideration to any evolving or then prevailing convention for similar loans in the U.S. loan market in U.S. dollars for such benchmark, which adjustment, method for calculating such adjustment and benchmark shall be published on an information service as selected from time to time by the Corporate Taxpayer. The Replacement Rate shall, subject to the next two sentences, replace LIBOR for all purposes under this Agreement. In connection with the establishment and application of the Replacement Rate, this Agreement shall be amended solely with the consent of the Corporate Taxpayer and OpCo, as may be necessary or appropriate, in the reasonable judgment of the Corporate Taxpayer, to effect the provisions of this definition. The Replacement Rate shall be applied in a manner consistent with market practice; provided that, in each case, to the extent such market practice is not administratively feasible for the Corporate Taxpayer, such Replacement Rate shall be applied as otherwise reasonably determined by the Corporate Taxpayer.

"**LLC Agreement**" means, with respect to OpCo, the Fifth Amended and Restated Limited Liability Company Agreement of OpCo, dated on or about the date hereof, as such agreement may be further amended, restated, supplemented and/or otherwise modified from time to time.

"**Market Value**" shall mean, (i) with respect to an Exchange, the value of the Class A Shares on the applicable Exchange Date determined by the Corporate Taxpayer on a reasonable and consistent basis and used by the Corporate Taxpayer in its U.S. federal income Tax reporting with respect to such Exchange, and (ii) with respect to a deemed Exchange pursuant to Valuation Assumption (6), (A) if the Class A Common Stock trades on a National Securities Exchange (as defined in the LLC Agreement) or automated or electronic quotation system, the arithmetic average of the high trading price on such date (or if such date is not a Trading Day (as used in this definition, as defined in the LLC Agreement), the immediately preceding Trading Day) and the low trading price on such date (or if such date is not a Trading Day, the immediately preceding Trading Day) or (B) if the Class A Common Stock is not then traded on a National Securities Exchange or automated or electronic quotation system, as applicable, the Appraiser FMV (as defined in the LLC Agreement) of one (1) share of Class A Common Stock on such date.

"**Material Objection Notice**" has the meaning set forth in Section 4.2 of this Agreement.

"**Net Tax Benefit**" has the meaning set forth in Section 3.1(b) of this Agreement.

"**Non-Stepped Up Tax Basis**" means, with respect to any Reference Asset at any time, the Tax basis that such asset would have had at such time if no Basis Adjustments had been made.

"**Objection Notice**" has the meaning set forth in Section 2.3(a) of this Agreement.

"**OpCo**" has the meaning set forth in the Recitals of this Agreement.

"**Opt-Out Notice**" has the meaning set forth in Section 4.1(c) of this Agreement.

"**Permitted Transferee**" has the meaning set forth in the LLC Agreement.

"**Person**" means any individual, corporation, firm, partnership, joint venture, limited liability company, estate, trust, business association, organization, governmental entity or other entity.

"**Pre-Exchange Transfer**" means any transfer (including upon death) or distribution in respect of one or more Units (i) that occurs prior to an Exchange of such Units, and (ii) to which Section 734(b) or 743(b) of the Code applies.

"**Realized Tax Benefit**" means, for a Taxable Year, the excess, if any, of the Hypothetical Tax Liability over the Actual Tax Liability of (i) the Corporate Taxpayer and (ii) without duplication, OpCo (and OpCo's applicable subsidiaries), but only with respect to Taxes imposed on OpCo (and OpCo's applicable subsidiaries) that are allocable to the Corporate Taxpayer under Section 704 of the Code. If all or a portion of the Actual Tax Liability for the Taxable Year arises as a result of an audit by a Taxing Authority of any Taxable Year, such liability shall not be included in determining the Realized Tax Benefit unless and until there has been a Determination.

"**Realized Tax Detriment**" means, for a Taxable Year, the excess, if any, of the Actual Tax Liability over the Hypothetical Tax Liability of (i) the Corporate Taxpayer and (ii) without duplication, OpCo (and OpCo's applicable subsidiaries), but only with respect to Taxes imposed on OpCo (and OpCo's applicable subsidiaries) that are allocable to the Corporate Taxpayer under Section 704 of the Code. If all or a portion of the Actual Tax Liability for the Taxable Year arises as a result of an audit by a Taxing Authority of any Taxable Year, such liability shall not be included in determining the Realized Tax Detriment unless and until there has been a Determination.

"**Reconciliation Dispute**" has the meaning set forth in Section 7.9 of this Agreement.

"**Reconciliation Procedures**" has the meaning set forth in Section 2.3(a) of this Agreement.

"**Redemption**" has the meaning set forth in the Recitals of this Agreement.

"**Reference Asset**" means any tangible or intangible asset that is held by OpCo, or by any of its direct or indirect Subsidiaries treated as a partnership or disregarded entity (but only to the extent such indirect Subsidiaries are held through Subsidiaries treated as partnerships or disregarded entities) for purposes of the applicable Tax, at the time of an Exchange. A Reference Asset also includes any asset that is "substituted basis property" under Section 7701(a)(42) of the Code with respect to a Reference Asset. For the avoidance of doubt, a Reference Asset does not include an asset held directly or indirectly by a Subsidiary treated as a corporation for U.S. federal income Tax purposes.

"**Schedule**" means any of the following: (i) a Basis Schedule; (ii) a Tax Benefit Schedule; or (iii) the Early Termination Schedule.

"**Senior Obligations**" has the meaning set forth in Section 5.1 of this Agreement.

"**Subsidiaries**" means, with respect to any Person, as of any date of determination, any other Person as to which such Person, owns, directly or indirectly, or otherwise controls more than 50% of the voting power or other similar interests or the sole general partner interest or managing member or similar interest of such Person.

"**Subsidiary Stock**" means stock or other equity interest in a Subsidiary of OpCo that is treated as a corporation for U.S. federal income Tax purposes.

"**Tax Attributes**" has the meaning set forth in the Recitals of this Agreement.

"**Tax Benefit Payment**" has the meaning set forth in Section 3.1(b) of this Agreement.

"**Tax Benefit Schedule**" has the meaning set forth in Section 2.2 of this Agreement.

"**Tax Return**" means any return, declaration, report or similar statement filed or required to be filed with respect to Taxes (including any attached schedules), including, without limitation, any information return, claim for refund, amended return and declaration of estimated Tax.

"**Taxable Year**" means a taxable year of the Corporate Taxpayer as defined in Section 441(b) of the Code or comparable section of state or local Tax law, as applicable (and, therefore, for the avoidance of doubt, may include a period of less than twelve (12) months for which a Tax Return is made), ending after the IPO Date.

"**Taxes**" means any and all U.S. federal, state, local and foreign taxes, assessments or similar charges that are based on or measured with respect to net income or profits (including alternative minimum taxes and any franchise taxes that are based on or measured by net income or profits), and any interest related to such Tax.

"**Taxing Authority**" means any domestic, federal, national, state, county or municipal or other local government, any subdivision, agency, commission or authority thereof, or any quasi-governmental body exercising any taxing authority or any other authority exercising Tax regulatory authority.

"**TRA Party**" has the meaning set forth in the Preamble to this Agreement.

"**TRA Party Representative**" means ICL.

"**Treasury Regulations**" means the final, temporary and proposed regulations under the Code promulgated from time to time (including corresponding provisions and succeeding provisions) as in effect for the relevant taxable period.

"**Units**" has the meaning set forth in the Recitals of this Agreement.

"**Valuation Assumptions**" shall mean, as of an Early Termination Date, the assumptions that in each Taxable Year ending on or after such Early Termination Date, (1) the Corporate Taxpayer will have taxable income sufficient to fully utilize the Tax items arising from the Tax Attributes (other than any items addressed in clause (2) below) during such Taxable Year or future Taxable Years (including, for the avoidance of doubt, Basis Adjustments and Imputed Interest that would result from future payments made under this Agreement that would be paid in accordance with the Valuation Assumptions) in which such deductions would become available, (2) loss carryovers generated by deductions arising from any Tax Attributes or Imputed Interest that are available as of the date of such Early Termination Date will be used by the Corporate Taxpayer on a pro rata basis from the date of such Early Termination Date through the earlier of (x) the scheduled expiration date under applicable Tax law of such loss carryovers or (y) the fifth (5th) anniversary of the Early Termination Date, (3) the U.S. federal income Tax rates that will be in effect for each such Taxable Year will be those specified for each such Taxable Year by the Code and other law as in effect on the Early Termination Date, the Assumed Rate will be calculated based on such rates and the apportionment factors applicable in the most recently ended Taxable Year (except to the extent any change to such Tax rates has already been enacted into law), and LIBOR or the Replacement Rate, as applicable, that will be in effect for each such Taxable Year will be the rate in effect on the Early Termination Date, (4) any non-amortizable, non-depreciable assets (other than any Subsidiary Stock) will be disposed of on the fifteenth (15th) anniversary of the applicable Exchange and any cash equivalents will be disposed of twelve (12) months following the Early Termination Date, unless such date has passed in which case such assets will be deemed disposed of on the fifth (5th) anniversary of the Early Termination Date; provided, that in the event of a Change of Control, such non-amortizable, non-depreciable assets shall be deemed disposed of at the time of sale (if applicable) of the relevant asset in the Change of Control (if earlier than such fifteenth (15th) anniversary), (5) any Subsidiary Stock will not be deemed to be disposed unless actually disposed, and (6) if, at the Early Termination Date, there are Units that have not been Exchanged, then each such Unit shall be deemed Exchanged for the Market Value (as determined in accordance with clause (ii) of the definition thereof) of the Class A Shares that would be transferred if the Exchange occurred on the Early Termination Date.

ARTICLE II

DETERMINATION OF CERTAIN REALIZED TAX BENEFIT

SECTION 2.1 Basis Schedule. Within ninety (90) calendar days after the due date (including extensions) of IRS Form 1120 (or any successor form) of the Corporate Taxpayer for each relevant Taxable Year, the Corporate Taxpayer shall deliver to the TRA Party Representative a schedule (the "**Basis Schedule**") that shows, in reasonable detail necessary to perform the calculations required by this Agreement, (i) the Non-Stepped Up Tax Basis of the Reference Assets as of each applicable Exchange Date, if any, (ii) the Basis Adjustment with respect to the Reference Assets as a result of the Exchanges effected in such Taxable Year or any prior Taxable Year, if any, calculated (1) in the aggregate and (2) with respect to Exchanges by each TRA Party, and (iii) the period (or periods) over which each such Basis Adjustment is amortizable and/or depreciable. All costs and expenses incurred in connection with the provision and preparation of the Basis Schedules and Tax Benefit Schedules under this Agreement shall be borne by OpCo.

SECTION 2.2 Tax Benefit Schedule.

(a) Tax Benefit Schedule. Within ninety (90) calendar days after the due date (including extensions) of IRS Form 1120 (or any successor form) of the Corporate Taxpayer for any Taxable Year in which there is a Realized Tax Benefit or a Realized Tax Detriment, the Corporate Taxpayer shall provide to the TRA Party

Representative a schedule showing, in reasonable detail, the calculation of the Realized Tax Benefit and Tax Benefit Payment, or the Realized Tax Detriment, as applicable, in respect of each TRA Party for such Taxable Year (a "**Tax Benefit Schedule**"). Each Tax Benefit Schedule will become final as provided in Section 2.3(a) and may be amended as provided in Section 2.3(b) (subject to the procedures set forth in Section 2.3(b)).

(b) Applicable Principles. Subject to Section 3.3, the Realized Tax Benefit (or the Realized Tax Detriment) for each Taxable Year is intended to measure the decrease (or increase) in the actual liability for Taxes of the Corporate Taxpayer for such Taxable Year attributable to the Tax Attributes, determined using a "with and without" methodology. Carryovers or carrybacks of any Tax item attributable to any of the Tax Attributes shall be considered to be subject to the rules of the Code and the Treasury Regulations or the appropriate provisions of U.S. state and local Tax law, as applicable, governing the use, limitation and expiration of carryovers or carrybacks of the relevant type. If a carryover or carryback of any Tax item includes a portion that is attributable to any Tax Attribute ("**TRA Portion**") and another portion that is not ("**Non-TRA Portion**"), such portions shall be considered to be used in accordance with the "with and without" methodology so that the amount of any Non-TRA Portion is deemed utilized, to the extent available, prior to the amount of any TRA Portion, to the extent available (with the TRA Portion being applied on a proportionate basis consistent with the provisions of Section 3.3). For the avoidance of doubt, the Corporate Taxpayer shall be entitled to make reasonable simplifying assumptions in making determinations contemplated by this Agreement, including reasonable assumptions regarding basis recovery periods based on available balance sheet information and including the assumption that the Assumed Rate is to be applied against the amount of taxable income of the Corporate Taxpayer for U.S. federal income Tax purposes that is used in calculating the Actual Tax Liability and the Hypothetical Tax Liability (and the parties hereby agree that that the Corporate Taxpayer's determination of the Realized Tax Benefit and Realized Tax Detriment with respect to U.S. state and local Taxes will not take into account jurisdiction-specific U.S. state and local adjustments to the U.S. federal taxable income base or to the U.S. federal rules regarding the utilization of Tax attribute carryovers). The parties agree that (A) all Tax Benefit Payments (other than the portion of the Tax Benefit Payments treated as Imputed Interest) attributable to the Basis Adjustments will be treated as subsequent upward purchase price adjustments that have the effect of creating additional Basis Adjustments to Reference Assets for the Corporate Taxpayer in the year of payment, (B) as a result, such additional Basis Adjustments will be incorporated into the current year calculation and into future year calculations, as appropriate, on an iterative basis continuing until any incremental Basis Adjustment is immaterial as reasonably determined by the TRA Party Representative and the Corporate Taxpayer in good faith, (C) the Actual Tax Liability will take into account the deduction of the portion of the Tax Benefit Payment that must be accounted for as Imputed Interest, and (D) the liability for U.S. federal income Taxes of the Corporate Taxpayer and the amount of taxable income of the Corporate Taxpayer for U.S. federal income Tax purposes as determined for purposes of calculating the Actual Tax Liability and the Hypothetical Tax Liability shall include, without duplication, such liability for U.S. federal income Taxes and such U.S. federal taxable income that is economically borne by or allocated to the Corporate Taxpayer as a result of the provisions of Section 4.6(d) of the LLC Agreement; provided, however, that such liability for Taxes and such taxable income shall be included in the Hypothetical Tax Liability and the Actual Tax Liability subject to the adjustments and assumptions set forth in the definitions thereof and, to the extent any such amount is taken into account on an Amended Schedule, such amount shall adjust a Tax Benefit Payment, as applicable, in accordance with Section 2.3(b).

SECTION 2.3 Procedures, Amendments.

(a) Procedure. Every time the Corporate Taxpayer delivers to the TRA Party Representative an applicable Schedule under this Agreement, including any Amended Schedule delivered pursuant to Section 2.3(b), and any Early Termination Schedule or amended Early Termination Schedule, the Corporate Taxpayer shall also (x) deliver to the TRA Party Representative supporting schedules and work papers, as determined by the Corporate Taxpayer or as reasonably requested by the TRA Party Representative, providing reasonable detail regarding data and calculations that were relevant for purposes of preparing the Schedule and (y) allow the TRA Party Representative reasonable access at no cost to the appropriate representatives at the Corporate Taxpayer, as determined by the Corporate Taxpayer or as reasonably requested by the TRA Party Representative, in connection with a review of such Schedule. Without limiting the generality of the preceding sentence, the Corporate Taxpayer shall ensure that any Tax Benefit Schedule that is delivered to the TRA Party Representative, along with any supporting schedules and work papers, provides a reasonably detailed presentation of the calculation of the Actual Tax Liability and the Hypothetical Tax Liability and identifies any material assumptions or operating procedures or

principles that were used for purposes of such calculations. An applicable Schedule or amendment thereto shall become final and binding on all parties thirty (30) calendar days from the date on which the TRA Party Representative is treated as having received the applicable Schedule or amendment thereto under Section 7.1 unless the TRA Party Representative (i) within thirty (30) calendar days from such date provides the Corporate Taxpayer with written notice of a material objection to such Schedule ("**Objection Notice**") made in good faith or (ii) provides a written waiver of such right of any Objection Notice within the period described in clause (i) above, in which case such Schedule or amendment thereto becomes binding on the date the waiver is received by the Corporate Taxpayer. If the Corporate Taxpayer and the TRA Party Representative, for any reason, are unable to successfully resolve the issues raised in the Objection Notice within thirty (30) calendar days after receipt by the Corporate Taxpayer of an Objection Notice, the Corporate Taxpayer and the TRA Party Representative shall employ the reconciliation procedures as described in Section 7.9 of this Agreement (the "**Reconciliation Procedures**").

(b) Amended Schedule. The applicable Schedule for any Taxable Year may be amended from time to time by the Corporate Taxpayer (i) in connection with a Determination affecting such Schedule, (ii) to correct material inaccuracies in the Schedule identified as a result of the receipt of additional factual information relating to a Taxable Year after the date the Schedule was provided to the TRA Party Representative, (iii) to comply with an Expert's determination under the Reconciliation Procedures, (iv) to reflect a change in the Realized Tax Benefit, or the Realized Tax Detriment for such Taxable Year attributable to a carryback or carryforward of a loss or other Tax item to such Taxable Year, (v) to reflect a change in the Realized Tax Benefit or the Realized Tax Detriment for such Taxable Year attributable to an amended Tax Return filed for such Taxable Year or (vi) to adjust an applicable TRA Party's Basis Schedule to take into account payments made pursuant to this Agreement (any such Schedule, an "**Amended Schedule**"). The Corporate Taxpayer shall provide an Amended Schedule to the TRA Party Representative when the Corporate Taxpayer delivers the Basis Schedule for the following taxable year.

SECTION 2.4 Basis Adjustments.

(a) Basis Adjustments. The parties to this Agreement acknowledge and agree to treat (A) to the fullest extent permitted by law each Direct Exchange as giving rise to Basis Adjustments and (B) to the fullest extent permitted by law each Redemption using cash or Class A Common Stock contributed to OpCo by the Corporate Taxpayer as a direct purchase of Units by the Corporate Taxpayer from the applicable TRA Party pursuant to Section 707(a)(2)(B) of the Code as giving rise to Basis Adjustments.

(b) Section 754 Election. The Corporate Taxpayer shall ensure that, on and after the date hereof for each taxable year in which an Exchange may occur, OpCo and each direct and indirect Subsidiary of OpCo that is treated as a partnership for U.S. federal income Tax purposes will have in effect an election under Section 754 of the Code (and under any similar provisions of applicable U.S. state or local law).

ARTICLE III

TAX BENEFIT PAYMENTS

SECTION 3.1 Payments.

(a) Payments. Within five (5) Business Days after a Tax Benefit Schedule delivered to the TRA Party Representative becomes final in accordance with Section 2.3(a) and Section 7.9, if applicable, the Corporate Taxpayer shall pay each TRA Party for the applicable Taxable Year the Tax Benefit Payment determined pursuant to Section 3.1(b) that is Attributable to such TRA Party. Each such Tax Benefit Payment shall be made by wire transfer of immediately available funds to the bank account previously designated by such TRA Party to the Corporate Taxpayer or as otherwise agreed by the Corporate Taxpayer and such TRA Party. For the avoidance of doubt, (x) no Tax Benefit Payment shall be made in respect of estimated Tax payments, including, without limitation, U.S. federal estimated income Tax payments and (y) the payments provided for pursuant to the above sentence shall be computed separately for each TRA Party.

(b) A "**Tax Benefit Payment**" in respect of a TRA Party for a Taxable Year means an amount, not less than zero, equal to the Net Tax Benefit that is Attributable to such TRA Party and the Interest Amount with

respect thereto. For the avoidance of doubt, for tax purposes, the Interest Amount shall not be treated as interest, but instead, shall be treated as additional consideration in the applicable transaction, unless otherwise required by law. Subject to Section 3.3, the "**Net Tax Benefit**" for a Taxable Year shall be an amount equal to the excess, if any, of 85% of the Cumulative Net Realized Tax Benefit as of the end of such Taxable Year, over the total amount of payments previously made under the first sentence of Section 3.1(a) (excluding payments attributable to Interest Amounts); provided, for the avoidance of doubt, that no such recipient shall be required to return any portion of any previously made Tax Benefit Payment. Notwithstanding anything to the contrary in this Agreement, the parties acknowledge and agree that the determination of the portion of the Tax Benefit Payment to be paid to a TRA Party under this Agreement with respect to U.S. state and local Taxes shall not require separate "with and without" calculations in respect of each applicable U.S. state and local Tax jurisdiction but rather will be based on the U.S. federal taxable income or gain for such taxable year reported on the Corporate Taxpayer's IRS Form 1120 (or any successor form) and the Assumed Rate. The "**Interest Amount**" shall equal the interest on the Net Tax Benefit calculated at the Agreed Rate from the due date (without extensions) for filing IRS Form 1120 (or any successor form) of the Corporate Taxpayer with respect to Taxes for such Taxable Year until the payment date under Section 3.1(a). Notwithstanding the foregoing, for each Taxable Year ending on or after the date of a Change of Control that occurs after the IPO Date, all Tax Benefit Payments shall be calculated by utilizing Valuation Assumptions (1), (2), (4) and (5), substituting in each case the terms "date of a Change of Control" for an "Early Termination Date."

(c) Notwithstanding anything herein to the contrary, the aggregate payments to a TRA Party under this Agreement in respect of an Exchange shall not exceed 60% of the fair market value of the initial consideration received by a TRA Party on such Exchange (the "**Default Cap**"), provided that, if a TRA Party delivers written notification before the end of its taxable year that includes the Exchange to the Corporate Taxpayer of a stated maximum selling price (within the meaning of Treasury Regulation 15A.453-1(c)(2)), the amount of the initial consideration received in connection with the applicable Exchange and the aggregate Tax Benefit Payments to such TRA Party in respect of such Exchange (other than amounts accounted for as interest under the Code) shall not exceed such stated maximum selling price, and the Default Cap shall not apply with respect to such TRA Party.

SECTION 3.2 No Duplicative Payments. It is intended that the provisions of this Agreement will not result in duplicative payment of any amount (including interest) required under this Agreement. The provisions of this Agreement shall be construed in the appropriate manner to ensure such intentions are realized.

SECTION 3.3 Pro Rata Payments. Notwithstanding anything in Section 3.1 to the contrary, to the extent that the aggregate Realized Tax Benefit of the Corporate Taxpayer with respect to the Tax Attributes is limited in a particular Taxable Year because the Corporate Taxpayer does not have sufficient taxable income, the Net Tax Benefit of the Corporate Taxpayer shall collectively be allocated among all parties eligible for Tax Benefit Payments under this Agreement in proportion to the amount of Net Tax Benefit, as such term is defined in this Agreement, that would have been Attributable to each such party if the Corporate Taxpayer had sufficient taxable income so that there were no such limitation.

SECTION 3.4 Payment Ordering. If for any reason the Corporate Taxpayer does not fully satisfy its payment obligations to make all Tax Benefit Payments due under this Agreement in respect of a particular Taxable Year, then the Corporate Taxpayer and the TRA Parties agree that (i) Tax Benefit Payments for such Taxable Year shall be allocated to all parties eligible for Tax Benefit Payments under this Agreement in proportion to the amounts of Net Tax Benefit, respectively, that would have been Attributable to each TRA Party if the Corporate Taxpayer had sufficient cash available to make such Tax Benefit Payments and (ii) no Tax Benefit Payments shall be made in respect of any Taxable Year until all Tax Benefit Payments to all TRA Parties in respect of all prior Taxable Years have been made in full.

SECTION 3.5 Excess Payments. To the extent the Corporate Taxpayer makes a payment to a TRA Party in respect of a particular Taxable Year under Section 3.1(a) of this Agreement (taking into account Section 3.3 and Section 3.4) in an amount in excess of the amount of such payment that should have been made to such TRA Party in respect of such Taxable Year, then (i) such TRA Party shall not receive further payments under Section 3.1(a) until such TRA Party has foregone a cumulative amount of payments equal to such excess and (ii) the Corporate Taxpayer will pay the amount of such TRA Party's foregone payments to the other Persons to whom a payment is due under this Agreement and that have not received any such excess payment in a manner such that each such Person to whom a payment is due under this Agreement, to the maximum extent possible, receives aggregate

payments under Section 3.1(a) (taking into account Section 3.3 and Section 3.4) in the amount it would have received if there had been no excess payment to such TRA Party.

ARTICLE IV

TERMINATION

SECTION 4.1 Early Termination of Agreement; Breach of Agreement.

(a) The Corporate Taxpayer may terminate this Agreement with respect to all amounts payable to the TRA Parties and with respect to all of the Units held by the TRA Parties at any time by paying to each TRA Party the Early Termination Payment in respect of such TRA Party; provided, however, that this Agreement shall only terminate upon the receipt of the Early Termination Payment by all TRA Parties, and provided, further, that the Corporate Taxpayer may withdraw any notice to execute its termination rights under this Section 4.1(a) prior to the time at which any Early Termination Payment has been paid. Upon payment of the Early Termination Payment by the Corporate Taxpayer, none of the TRA Parties or the Corporate Taxpayer shall have any further payment obligations under this Agreement, other than for any (a) Tax Benefit Payments due and payable and that remain unpaid as of the Early Termination Notice and (b) Tax Benefit Payment due for the Taxable Year ending with or including the date of the Early Termination Notice (except to the extent that the amount described in clause (b) is included in the Early Termination Payment). If an Exchange occurs after the Corporate Taxpayer makes all of the required Early Termination Payments, the Corporate Taxpayer shall have no obligations under this Agreement with respect to such Exchange.

(b) In the event that the Corporate Taxpayer (1) materially breaches any of its material obligations under this Agreement, whether as a result of failure to make any payment when due, failure to honor any other material obligation required hereunder or by operation of law as a result of the rejection of this Agreement in a case commenced under the Bankruptcy Code or otherwise or (2)(A) shall commence any case, proceeding or other action (i) under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to it, or seeking to adjudicate a bankruptcy or insolvency, or seeking reorganization, arrangement, adjustment, winding-up, liquidation, dissolution, composition or other relief with respect to it or its debts or (ii) seeking an appointment of a receiver, trustee, custodian, conservator or other similar official for it or for all or any substantial part of its assets, or it shall make a general assignment for the benefit of creditors or (B) there shall be commenced against the Corporate Taxpayer any case, proceeding or other action of the nature referred to in clause (A) above that remains undismissed or undischarged for a period of sixty (60) calendar days, all obligations hereunder shall be automatically accelerated and shall be immediately due and payable, and such obligations shall be calculated as if an Early Termination Notice had been delivered on the date of such breach and shall include, but not be limited to, (1) the Early Termination Payments calculated as if an Early Termination Notice had been delivered on the date of a breach, (2) any Tax Benefit Payment due and payable and that remains unpaid as of the date of a breach, and (3) any Tax Benefit Payment in respect of any TRA Party due for the Taxable Year ending with or including the date of a breach; provided that procedures similar to the procedures of Section 4.2 shall apply with respect to the determination of the amount payable by the Corporate Taxpayer pursuant to this sentence. Notwithstanding the foregoing (other than as set forth in subsection (2) above), in the event that the Corporate Taxpayer breaches this Agreement, each TRA Party shall be entitled to elect to receive the amounts set forth in clauses (1), (2) and (3) above or to seek specific performance of the terms hereof. The parties agree that the failure to make any payment due pursuant to this Agreement within three (3) months of the date such payment is due shall be deemed to be a material breach of a material obligation under this Agreement for all purposes of this Agreement, and that it will not be considered to be a material breach of a material obligation under this Agreement to make a payment due pursuant to this Agreement within three (3) months of the date such payment is due. Notwithstanding anything in this Agreement to the contrary, it shall not be a material breach of a material obligation of this Agreement if the Corporate Taxpayer fails to make any Tax Benefit Payment when due to the extent that the Corporate Taxpayer has insufficient funds to make such payment; provided, (i) the Corporate Taxpayer has used reasonable efforts to obtain such funds and (ii) that the interest provisions of Section 5.2 shall apply to such late payment (unless the Corporate Taxpayer does not have sufficient funds to make such payment as a result of limitations imposed by any Senior Obligations, in which case Section 5.2 shall apply, but the Default Rate shall be replaced by the Agreed Rate); provided further, for the

avoidance of doubt, the last sentence of this Section 4.1(b) shall not apply to any payments due pursuant to the acceleration upon a Change of Control contemplated by Section 4.1(c).

(c) The Corporate Taxpayer shall provide written notice to the TRA Party Representative thirty (30) days in advance of the closing of any Change of Control, and the TRA Party Representative shall have the option, upon written notice to the Corporate Taxpayer ("**Opt-Out Notice**") within twenty (20) days thereafter, to cause its respective TRA Parties to continue as TRA Parties under this Agreement after such Change of Control, in which case each such TRA Party will not be entitled to receive the amounts set forth in the remainder of this Section 4.1(c), and Valuation Assumptions (1), (2), (4) and (5) shall apply to Tax Benefit Payments to each such TRA Party following the closing of such Change of Control. Notwithstanding anything to the contrary in the foregoing sentence in this Section 4.1(c), if an Opt-Out Notice is not timely provided with respect to a TRA Party, all obligations hereunder will be accelerated and such obligations shall be calculated as if an Early Termination Notice had been delivered on the date of such Change of Control and shall include (1) the Early Termination Payments calculated with respect to such TRA Parties as if the Early Termination Date is the date of such Change of Control, (2) any Tax Benefit Payment due and payable and that remains unpaid as of the date of such Change of Control, and (3) any Tax Benefit Payment in respect of any TRA Party due for the Taxable Year ending with or including the date of such Change of Control. If an Opt-Out Notice is not timely provided with respect to a TRA Party, (i) such TRA Party shall be entitled to receive the amounts set forth in clauses (1), (2) and (3) of the preceding sentence, (ii) any Early Termination Payment described in the preceding sentence shall be calculated utilizing Valuation Assumptions (1), (2), (3), (4), (5) and (6), substituting in each case the terms "date of a Change of Control" for an "Early Termination Date," and (iii) Section 4.2 and Section 4.3 shall apply, *mutatis mutandis,* with respect to payments to such TRA Party upon the Change of Control.

SECTION 4.2 Early Termination Notice. If the Corporate Taxpayer chooses to exercise its right of early termination under Section 4.1 above, the Corporate Taxpayer shall deliver to each TRA Party notice of such intention to exercise such right ("**Early Termination Notice**") and shall deliver to the TRA Party Representative a schedule (the "**Early Termination Schedule**") specifying the Corporate Taxpayer's intention to exercise such right and showing in reasonable detail the calculation of the Early Termination Payment(s) due for each TRA Party. Each Early Termination Schedule shall become final and binding on all parties thirty (30) calendar days from the first date on which all applicable TRA Parties are treated as having received such Schedule or amendment thereto under Section 7.1 unless the TRA Party Representative (i) within thirty (30) calendar days after such date provides the Corporate Taxpayer with notice of a material objection to such Schedule made in good faith ("**Material Objection Notice**") or (ii) provides a written waiver of such right of a Material Objection Notice within the period described in clause (i) above, in which case such Schedule becomes binding on the date the waiver is received by the Corporate Taxpayer. If the Corporate Taxpayer and the TRA Party Representative, for any reason, are unable to successfully resolve the issues raised in such notice within thirty (30) calendar days after receipt by the Corporate Taxpayer of the Material Objection Notice, the Corporate Taxpayer and the TRA Party Representative shall employ the Reconciliation Procedures in which case such Schedule becomes binding ten (10) calendar days after the conclusion of the Reconciliation Procedures.

SECTION 4.3 Payment upon Early Termination.

(a) Within three (3) calendar days after an Early Termination Effective Date, the Corporate Taxpayer shall pay to each TRA Party an amount equal to the Early Termination Payment in respect of such TRA Party. Such payment shall be made by wire transfer of immediately available funds to a bank account or accounts designated by such TRA Party or as otherwise agreed by the Corporate Taxpayer and such TRA Party or, in the absence of such designation or agreement, by check mailed to the last mailing address provided by such TRA Party to the Corporate Taxpayer.

(b) "**Early Termination Payment**" in respect of a TRA Party shall equal the present value, discounted at the Early Termination Rate as of the applicable Early Termination Effective Date, of all Tax Benefit Payments in respect of such TRA Party that would be required to be paid by the Corporate Taxpayer beginning from the Early Termination Date and assuming that the Valuation Assumptions in respect of such TRA Party are applied and that each Tax Benefit Payment for the relevant Taxable Year would be satisfied on the due date (without extensions) under applicable law as of the Early Termination Effective Date for filing of IRS Form 1120 (or any successor form) of the Corporate Taxpayer.

ARTICLE V

SUBORDINATION AND LATE PAYMENTS

SECTION 5.1 Subordination. Notwithstanding any other provision of this Agreement to the contrary, any Tax Benefit Payment or payments made with respect to Section 4.1(c) due to events described in paragraph (ii) of the definition of Change of Control required to be made by the Corporate Taxpayer to the TRA Parties under this Agreement shall rank subordinate and junior in right of payment to any principal, interest or other amounts due and payable in respect of any obligations in respect of indebtedness for borrowed money of the Corporate Taxpayer and its Subsidiaries ("**Senior Obligations**") and shall rank *pari passu* in right of payment with all current or future unsecured obligations of the Corporate Taxpayer that are not Senior Obligations. To the extent that any payment under this Agreement is not permitted to be made at the time payment is due as a result of this Section 5.1 and the terms of agreements governing Senior Obligations, such payment obligation nevertheless shall accrue for the benefit of TRA Parties and the Corporate Taxpayer shall make such payments at the first opportunity that such payments are permitted to be made in accordance with the terms of the Senior Obligations. Notwithstanding any other provision of this Agreement to the contrary, to the extent that the Corporate Taxpayer or any of its Affiliates enters into future Tax receivable or other similar agreements ("**Future TRAs**"), the Corporate Taxpayer shall ensure that the terms of any such Future TRA shall provide that the Tax Attributes subject to this Agreement are considered senior in priority to any Tax attributes subject to any such Future TRA for purposes of calculating the amount and timing of payments under any such Future TRA.

SECTION 5.2 Late Payments by the Corporate Taxpayer. Subject to the proviso in the last sentence of Section 4.1(b), the amount of all or any portion of any Tax Benefit Payment or Early Termination Payment not made to the TRA Parties when due under the terms of this Agreement, whether as a result of Section 5.1 or otherwise, shall be payable together with any interest thereon, computed at the Default Rate and commencing from the date on which such Tax Benefit Payment or Early Termination Payment was first due and payable to the date of actual payment.

ARTICLE VI

NO DISPUTES; CONSISTENCY; COOPERATION

SECTION 6.1 Participation in the Corporate Taxpayer's and OpCo's Tax Matters. Except as otherwise provided herein, the Corporate Taxpayer shall have full responsibility for, and sole discretion over, all Tax matters concerning the Corporate Taxpayer and OpCo, including without limitation the preparation, filing or amending of any Tax Return and defending, contesting or settling any issue pertaining to Taxes. Notwithstanding the foregoing, the Corporate Taxpayer shall notify the TRA Party Representative of, and keep the TRA Party Representative reasonably informed with respect to, the portion of any audit of the Corporate Taxpayer and OpCo by a Taxing Authority the outcome of which is reasonably expected to materially affect the rights and obligations of the TRA Parties under this Agreement, and shall provide the TRA Party Representative reasonable opportunity to provide information and other input to the Corporate Taxpayer, OpCo and their respective advisors concerning the conduct of any such portion of such audit; provided, however, that the Corporate Taxpayer and OpCo shall not be required to take any action that is inconsistent with any provision of the LLC Agreement.

SECTION 6.2 Consistency. The Corporate Taxpayer and the TRA Parties agree to report and cause to be reported for all purposes, including U.S. federal, state and local tax purposes and financial reporting purposes, all Tax-related items (including, without limitation, the Tax Attributes and each Tax Benefit Payment) in a manner consistent with that contemplated by this Agreement or specified by the Corporate Taxpayer in any Schedule required to be provided by or on behalf of the Corporate Taxpayer under this Agreement unless otherwise required by law. The Corporate Taxpayer shall (and shall cause OpCo and its other Subsidiaries to) use commercially reasonable efforts (for the avoidance of doubt, taking into account the interests and entitlements of all TRA Parties under this Agreement) to defend the Tax treatment contemplated by this Agreement and any Schedule in any audit, contest or similar proceeding with any Taxing Authority.

SECTION 6.3 Cooperation. Each of the TRA Parties shall (a) furnish to the Corporate Taxpayer in a timely manner such information, documents and other materials in its possession as the Corporate Taxpayer may

reasonably request for purposes of making any determination or computation necessary or appropriate under this Agreement, preparing any Tax Return or contesting or defending any audit, examination or controversy with any Taxing Authority, (b) make itself available to the Corporate Taxpayer and its representatives to provide explanations of documents and materials and such other information as the Corporate Taxpayer or its representatives may reasonably request in connection with any of the matters described in clause (a) above, and (c) reasonably cooperate in connection with any such matter, and the Corporate Taxpayer shall reimburse each such TRA Party for any reasonable and documented out-of-pocket costs and expenses incurred pursuant to this Section 6.3. Upon the request of any TRA Party, the Corporate Taxpayer shall cooperate in taking any action reasonably requested by such TRA Party in connection with its tax or financial reporting and/or the consummation of any assignment or transfer of any of its rights and/or obligations under this Agreement, including without limitation, providing any information or executing any documentation.

ARTICLE VII

MISCELLANEOUS

SECTION 7.1 Notices. All notices, requests, claims, demands and other communications hereunder shall be in writing and shall be deemed duly given and received (a) on the date of delivery if delivered personally, or by facsimile or email with confirmation of transmission by the transmitting equipment or (b) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier service. All notices hereunder shall be delivered as set forth below, or pursuant to such other instructions as may be designated in writing by the party to receive such notice:

If to the Corporate Taxpayer, to:

Rani Therapeutics Holdings, Inc.
2051 Ringwood Avenue
San Jose, California 95131

Attention: Svai Sanford, Chief Financial Officer
Email: svai@ranitherapeutics.com

If to the TRA Parties, to the respective addresses, fax numbers and email addresses set forth in the records of OpCo.

Any party may change its address or email by giving the other party written notice of its new address or email in the manner set forth above.

SECTION 7.2 Counterparts. This Agreement may be executed in one or more counterparts, all of which shall be considered one and the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other parties, it being understood that all parties need not sign the same counterpart. Delivery of an executed signature page to this Agreement by facsimile transmission shall be as effective as delivery of a manually signed counterpart of this Agreement.

SECTION 7.3 Entire Agreement; No Third Party Beneficiaries. This Agreement constitutes the entire agreement and supersedes all prior agreements and understandings, both written and oral, among the parties with respect to the subject matter hereof. This Agreement shall be binding upon and inure solely to the benefit of each party hereto and their respective successors and permitted assigns, and nothing in this Agreement, express or implied, is intended to or shall confer upon any other Person any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

SECTION 7.4 Governing Law. This Agreement shall be governed by, and construed in accordance with, the law of the State of Delaware.

SECTION 7.5 Severability. If any term or other provision of this Agreement is invalid, illegal or incapable of being enforced by any law or public policy, all other terms and provisions of this Agreement shall nevertheless remain in full force and effect so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties hereto shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner in order that the transactions contemplated hereby are consummated as originally contemplated to the greatest extent possible.

SECTION 7.6 Successors; Assignment; Amendments; Waivers.

(a) No TRA Party may, directly or indirectly, assign or otherwise transfer its rights under this Agreement to any Person (other than a Permitted Transferee) without the express prior written consent of the Corporate Taxpayer, such consent not to be unreasonably withheld, conditioned, or delayed, and without such Person (including a Permitted Transferee) executing and delivering a joinder to this Agreement, substantially in the form of Exhibit A hereto, agreeing to become a TRA Party for all purposes of this Agreement, except as otherwise provided in such joinder (a "**Joinder**"). For avoidance of doubt, this Section 7.6(a) shall apply regardless of whether such TRA Party continues to hold any interest in the Corporate Taxpayer or OpCo; provided, however, that if a TRA Party transfers Units in accordance with the terms of the LLC Agreement but does not assign to the transferee of such Units its rights under this Agreement with respect to such transferred Units, such TRA Party shall continue to be entitled to receive the Tax Benefit Payments arising in respect of a subsequent Exchange of such Units. Any assignment, or attempted assignment in violation of this Agreement, including any failure of a purported assignee to enter into a Joinder or to provide any forms or other information to the extent required hereunder, shall be null and void, and shall not bind or be recognized by the Corporate Taxpayer or the TRA Parties. The Corporate Taxpayer shall be entitled to treat the record owner of any rights under this Agreement as the absolute owner thereof and shall incur no liability for payments made in good faith to such owner until such time as a written assignment of such rights is permitted pursuant to the terms and conditions of this Section 7.6(a) and has been recorded on the books of the Corporate Taxpayer.

(b) No provision of this Agreement may be amended unless such amendment is approved in writing by each of the Corporate Taxpayer and by the TRA Party Representative; provided, that no such amendment shall be effective if such amendment will have a disproportionate effect on the payments one or more TRA Parties receive under this Agreement unless such amendment is consented in writing by such TRA Parties disproportionately affected who would be entitled to receive at least two-thirds of the total amount of the Early Termination Payments payable to all TRA Parties disproportionately affected hereunder if the Corporate Taxpayer had exercised its right of early termination on the date of the most recent Exchange prior to such amendment (excluding, for purposes of this sentence, all payments made to any TRA Party pursuant to this Agreement since the date of such most recent Exchange). No provision of this Agreement may be waived unless such waiver is in writing and signed by the party against whom the waiver is to be effective.

(c) All of the terms and provisions of this Agreement shall be binding upon, shall inure to the benefit of and shall be enforceable by the parties hereto and their respective successors, assigns, heirs, executors, administrators and legal representatives. The Corporate Taxpayer shall require and cause any direct or indirect successor (whether by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Corporate Taxpayer, by written agreement, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Corporate Taxpayer would be required to perform if no such succession had taken place.

SECTION 7.7 Titles and Subtitles. The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

SECTION 7.8 Resolution of Disputes.

(a) Except as provided by Section 7.9, any dispute that is not amicably resolved within thirty (30) days after being notified to the other parties rising out of or relating to this Agreement, including any ancillary claims of any party, arising out of, relating to or in connection with the validity, negotiation, execution,

interpretation, performance or non-performance of this Agreement (including the validity, scope and enforceability of this arbitration provision), or the propriety of the commencement of the arbitration (each a "**Dispute**") shall be finally settled by arbitration conducted by a single arbitrator in accordance with the then-existing Rules of Arbitration of the International Chamber of Commerce. The seat or legal place of arbitration shall be New York. If the parties to the Dispute fail to agree on the selection of an arbitrator within thirty (30) calendar days of the receipt of the request for arbitration, the International Chamber of Commerce shall make the appointment. Performance under this Agreement shall continue if reasonably possible during any arbitration proceedings. The arbitration shall be deemed to meet these qualifications unless a party objects with five (5) days of nomination.

(b) Notwithstanding the provisions of paragraph (a), the Corporate Taxpayer may bring an action or special proceeding in any court of competent jurisdiction for the purpose of compelling a party to arbitrate, seeking temporary or preliminary relief in aid of an arbitration hereunder, enforcing and/or challenging an arbitration award and, for the purposes of this paragraph (b), each TRA Party (i) expressly consents to the application of paragraph (c) of this Section 7.8 to any such action or proceeding, (ii) agrees that proof shall not be required that monetary damages for breach of the provisions of this Agreement would be difficult to calculate and that remedies at law would be inadequate, and (iii) irrevocably appoints the Corporate Taxpayer as agent of such TRA Party for service of process in connection with any such action or proceeding and agrees that service of process upon such agent, who shall promptly advise the TRA Party of any such service of process, shall be deemed in every respect effective service of process upon the TRA Party in any such action or proceeding.

(c) (i) EACH PARTY HEREBY IRREVOCABLY SUBMITS TO THE JURISDICTION OF COURTS LOCATED IN NEW YORK, NEW YORK FOR THE PURPOSE OF ANY JUDICIAL PROCEEDING BROUGHT IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION 7.8, OR ANY JUDICIAL PROCEEDING ANCILLARY TO AN ARBITRATION OR CONTEMPLATED ARBITRATION ARISING OUT OF OR RELATING TO OR CONCERNING THIS AGREEMENT. Such ancillary judicial proceedings include any suit, action or proceeding to compel arbitration, to obtain temporary or preliminary judicial relief in aid of arbitration, or to confirm, enforce or challenge an arbitration award. The parties acknowledge that the fora designated by this paragraph (c) have a reasonable relation to this Agreement, and to the parties' relationship with one another; and

(ii) The parties hereby waive, to the fullest extent permitted by applicable law, any objection which they now or hereafter may have to personal jurisdiction or to the laying of venue of any such ancillary suit, action or proceeding brought in any court referred to in the preceding paragraph of this Section 7.8 and such parties agree not to plead or claim the same.

SECTION 7.9 Reconciliation. In the event that the Corporate Taxpayer and the TRA Party Representative are unable to resolve a disagreement with respect to the matters governed by Sections 2.3 and 4.2 within the relevant period designated in this Agreement ("**Reconciliation Dispute**"), the Reconciliation Dispute shall be submitted for determination to a nationally recognized expert (the "**Expert**") in the particular area of disagreement mutually acceptable to both parties. The Expert shall be a partner or principal in a nationally recognized accounting or law firm, and unless the Corporate Taxpayer and the TRA Party Representative agree otherwise, the Expert shall not, and the firm that employs the Expert shall not, have any material relationship with the Corporate Taxpayer or the TRA Party Representative or other actual or potential conflict of interest. If the Corporate Taxpayer and the TRA Party Representative are unable to agree on an Expert within fifteen (15) calendar days of receipt by the respondent(s) of written notice of a Reconciliation Dispute, then the Expert shall be appointed by the International Chamber of Commerce Centre for Expertise. The Expert shall resolve any matter relating to the TRA Party's Basis Schedule or an amendment thereto or the Early Termination Schedule or an amendment thereto within thirty (30) calendar days and shall resolve any matter relating to a Tax Benefit Schedule or an amendment thereto within fifteen (15) calendar days or as soon thereafter as is reasonably practicable, in each case after the matter has been submitted to the Expert for resolution. Notwithstanding the preceding sentence, if the matter is not resolved before any payment that is the subject of a disagreement would be due (in the absence of such disagreement) or any Tax Return reflecting the subject of a disagreement is due, the undisputed amount shall be paid on the date prescribed by this Agreement and such Tax Return may be filed as prepared by the Corporate Taxpayer, subject to adjustment or amendment upon resolution. The costs and expenses relating to the engagement of such Expert or amending any Tax Return shall be borne by the Corporate Taxpayer except as provided in the next sentence. The Corporate Taxpayer and the TRA Party Representative shall bear their own costs and expenses of

such proceeding, unless (i) the Expert adopts the TRA Party Representative's position, in which case the Corporate Taxpayer shall reimburse the relevant TRA Party Representative for any reasonable out-of-pocket costs and expenses in such proceeding, or (ii) the Expert adopts the Corporate Taxpayer's position, in which case the TRA Party Representative shall reimburse the Corporate Taxpayer for any reasonable out-of-pocket costs and expenses in such proceeding. Any dispute as to whether a dispute is a Reconciliation Dispute within the meaning of this Section 7.9 shall be decided by the Expert. The Expert shall finally determine any Reconciliation Dispute and the determinations of the Expert pursuant to this Section 7.9 shall be binding on the Corporate Taxpayer and each of the TRA Parties and may be entered and enforced in any court having jurisdiction.

SECTION 7.10 Withholding. The Corporate Taxpayer shall be entitled to deduct and withhold from any payment payable pursuant to this Agreement such amounts as the Corporate Taxpayer is required to deduct and withhold with respect to the making of such payment under the Code or any provision of state, local or foreign Tax law; provided that, prior to deducting or withholding any such amounts, the Corporate Taxpayer shall notify the TRA Party Representative and shall consult in good faith with such TRA Party Representative regarding the basis for such deduction or withholding. To the extent that amounts are so withheld and paid over to the appropriate Taxing Authority by the Corporate Taxpayer, such withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Person in respect of whom such withholding was made. To the extent that any payment pursuant to this Agreement is not reduced by such deductions or withholdings, such recipient shall indemnify the applicable withholding agent for any amounts imposed by any Taxing Authority together with any costs and expenses related thereto, but not including penalties and interest attributable to the applicable withholding agent's gross negligence or willful misconduct. Each TRA Party shall promptly provide the Corporate Taxpayer, OpCo or other applicable withholding agent with any applicable Tax forms and certifications (including IRS Form W-9 or the applicable version of IRS Form W-8) reasonably requested, in connection with determining whether any such deductions and withholdings are required under the Code or any provision of state, local or foreign Tax law.

SECTION 7.11 Admission of the Corporate Taxpayer into a Consolidated Group; Transfers of Corporate Assets.

(a) If the Corporate Taxpayer is or becomes a member of an affiliated, consolidated, combined or unitary group of corporations that files a consolidated, combined or unitary income Tax Return pursuant to Sections 1501 et seq. of the Code or any corresponding provisions of state, local or foreign law, then: (i) the provisions of this Agreement shall be applied with respect to the group as a whole; and (ii) Tax Benefit Payments, Early Termination Payments and other applicable items hereunder shall be computed with reference to the consolidated, combined or unitary taxable income, gain, loss, deduction and attributes of the group as a whole.

(b) If the Corporate Taxpayer (or any member of a group described in Section 7.11(a)) transfers or is deemed to transfer any Unit or any Reference Asset to a transferee that is treated as a corporation for U.S. federal income Tax purposes (other than a member of a group described in Section 7.11(a)) in a transaction in which the transferee's basis in the property acquired is determined in whole or in part by reference to such transferor's basis in such property, then the Corporate Taxpayer shall cause such transferee to assume the obligation to make payments hereunder with respect to the applicable Tax Attributes associated with any Reference Asset or interest therein acquired (directly or indirectly) in such transfer (taking into account any gain recognized in the transaction) in a manner consistent with the terms of this Agreement as the transferee (or one of its Affiliates) actually realizes Tax benefits from the Tax Attributes.

(c) If OpCo or any applicable Subsidiary transfers (or is deemed to transfer for U.S. federal income Tax purposes) any Reference Asset to a transferee that is treated as a corporation for U.S. federal income Tax purposes (other than a member of a group described in Section 7.11(a)) in a transaction in which the transferee's basis in the property acquired is determined in whole or in part by reference to such transferor's basis in such property, OpCo or the applicable Subsidiary shall be treated as having disposed of the Reference Asset in a wholly taxable transaction. The consideration deemed to be received by OpCo or the applicable Subsidiary in the transaction contemplated in the prior sentence shall be equal to the fair market value of the deemed transferred asset, plus (i) the amount of debt to which such asset is subject, in the case of a transfer of an encumbered asset or (ii) the amount of debt allocated to such asset, in the case of a transfer of a partnership interest. The transactions described in this Section 7.11(c) and Section 7.11(e) below shall be taken into account in determining the Realized Tax Benefit or Realized Tax Detriment, as applicable, for such Taxable Year based on the income, gain or loss deemed

allocated to the Corporate Taxpayer using the Non-Adjusted Tax Basis of the Reference Assets in calculating its Hypothetical Tax Liability for such Taxable Year and using the actual Tax basis of the Reference Assets in calculating its Actual Tax Liability, determined using the "with and without" methodology. Thus, for example, in determining the Hypothetical Tax Liability of the Corporate Taxpayer, the taxable income of the Corporate Taxpayer shall be determined by treating OpCo as having sold the applicable Reference Asset for its fair market value, recovering any basis applicable to such Reference Asset (using the Non-Adjusted Tax Basis), while the Actual Tax Liability of the Corporate Taxpayer would be determined by recovering the actual Tax basis of the Reference Asset that reflects any Basis Adjustments.

(d) If any member of a group described in Section 7.11(a) that owns any Unit deconsolidates from the group (or the Corporate Taxpayer deconsolidates from the group), then the Corporate Taxpayer shall cause such member (or the parent of the consolidated group in a case where the Corporate Taxpayer deconsolidates from the group) to assume the obligation to make payments hereunder with respect to the applicable Tax Attributes associated with any Reference Asset it owns (directly or indirectly) in a manner consistent with the terms of this Agreement as the member (or one of its Affiliates) actually realizes Tax benefits. If a transferee or a member of a group described in Section 7.11(a) assumes an obligation to make payments pursuant to this Section 7.11(d), then the initial obligor is relieved of the obligation assumed.

(e) If the Corporate Taxpayer (or any member of a group described in Section 7.11(a)) transfers (or is deemed to transfer for U.S. federal income Tax purposes) any Unit in a transaction that is wholly or partially taxable, then for purposes of calculating payments under this Agreement, OpCo shall be treated as having disposed of the portion of any Reference Asset (determined based on a pro rata share of an undivided interest in each Reference Asset) that is indirectly transferred by the Corporate Taxpayer or other entity described above (*i.e.*, taking into account the number of Units transferred) in a wholly or partially taxable transaction, as applicable, in which all income, gain or loss is allocated to the Corporate Taxpayer. The consideration deemed to be received by OpCo shall be equal to the fair market value of the deemed transferred asset, plus (i) the amount of debt to which such asset is subject, in the case of a transfer of an encumbered asset or (ii) the amount of debt allocated to such asset, in the case of a transfer of a partnership interest.

SECTION 7.12 Confidentiality.

(a) Each TRA Party and each of their assignees acknowledge and agree that the information of the Corporate Taxpayer is confidential and, except in the course of performing any duties as necessary for the Corporate Taxpayer and its Affiliates, as required by law or legal process or to enforce the terms of this Agreement, such person shall keep and retain in the strictest confidence and not disclose to any Person any confidential matters, acquired pursuant to this Agreement, of the Corporate Taxpayer and its Affiliates and successors, concerning OpCo, its members and its Affiliates and successors, learned by the TRA Party heretofore or hereafter. This Section 7.12 shall not apply to (i) any information that has been made publicly available by the Corporate Taxpayer or any of its Affiliates, becomes public knowledge (except as a result of an act of the TRA Party in violation of this Agreement) or is generally known to the business community and (ii) the disclosure of information to the extent necessary for the TRA Party to prepare and file its Tax Returns, to respond to any inquiries regarding the same from any Taxing Authority or to prosecute or defend any action, proceeding or audit by any Taxing Authority with respect to such Tax Returns. Notwithstanding anything to the contrary herein, each TRA Party and each of their assignees (and each employee, representative or other agent of the TRA Party or its assignees, as applicable) may disclose to any and all Persons, without limitation of any kind, the Tax treatment and Tax structure of the Corporate Taxpayer, OpCo and their Affiliates, and any of their transactions, and all materials of any kind (including opinions or other Tax analyses) that are provided to the TRA Party relating to such Tax treatment and Tax structure.

(b) If a TRA Party or an assignee commits a breach, or threatens to commit a breach, of any of the provisions of this Section 7.12, the Corporate Taxpayer shall have the right and remedy to have the provisions of this Section 7.12 specifically enforced by injunctive relief or otherwise by any court of competent jurisdiction without the need to post any bond or other security, it being acknowledged and agreed that any such breach or threatened breach shall cause irreparable injury to the Corporate Taxpayer or any of its Subsidiaries or the TRA Parties and the accounts and funds managed by the Corporate Taxpayer and that money damages alone shall not provide an adequate remedy to such Persons. Such rights and remedies shall be in addition to, and not in lieu of, any other rights and remedies available at law or in equity.

SECTION 7.13 Partnership Agreement. This Agreement shall be treated as part of the LLC Agreement as described in Section 761(c) of the Code and Sections 1.704-1(b)(2)(ii)(h) and 1.761-1(c) of the Treasury Regulations.

SECTION 7.14 Change in Law. Notwithstanding anything herein to the contrary, if, in connection with an actual or proposed change in law, a TRA Party reasonably believes that the existence of this Agreement could cause income (other than income arising from receipt of a payment under this Agreement) recognized by the TRA Party upon any Exchange by such TRA Party to be treated as ordinary income rather than capital gain (or otherwise taxed at ordinary income rates) for U.S. federal income Tax purposes or would have other material adverse Tax consequences to such TRA Party, then at the election of such TRA Party and to the extent specified by such TRA Party, this Agreement (i) shall cease to have further effect with respect to such TRA Party, (ii) shall not apply to an Exchange by such TRA Party occurring after a date specified by such TRA Party, or (iii) shall otherwise be amended in a manner determined by such TRA Party, provided that such amendment shall not result in an increase in payments under this Agreement at any time as compared to the amounts and times of payments that would have been due in the absence of such amendment.

SECTION 7.15 Electronic Signature. The words "execution," "signed," "signature," "delivery," and words of like import in or relating to this Agreement or any document to be signed in connection with this Agreement shall be deemed to include electronic signatures (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com), deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, and the parties hereto consent to conduct the transactions contemplated hereunder by electronic means.

[The remainder of this page is intentionally blank]

IN WITNESS WHEREOF, the Corporate Taxpayer and each TRA Party have duly executed this Agreement as of the date first written above.

Corporate Taxpayer

RANI THERAPEUTICS HOLDINGS, INC.

By: /s/ Talat Imran
Name: Talat Imran
Title: Chief Executive Officer

OpCo:

RANI THERAPEUTICS, LLC

By: /s/ Talat Imran
Name: Talat Imran
Title: Chief Executive Officer

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ALPHA SUGARCOAT INVESTMENT LLC

By: /s/ Renee Li
Name: Renee Li
Title: Chief Executive Officer

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

DENNIS AUSIELLO

/s/ Dennis Ausiello

Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ARTHUR CHANG

/s/ Arthur Chang
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

JEAN-LUC BUTEL

Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI IV

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI III

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

BUTTONWOOD ALPHA QP FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ARVINDER DHALLA

/s/ Arvinder Dhalla

Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ER INVESTMENT GROUP 1 LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

ERS INVESTMENTS LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ANDREW FARQUHARSON

/s/ Andrew Farquharson

Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

BETSY GUTIERREZ

/s/ Betsy Gutierrez

Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

GV 2013, L.P.

By: GV 2013 GP, L.L.C.,
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2015, L.P.

By: GV 2015 GP, L.L.C.
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2017, L.P.

By: GV 2017 GP, L.P., its General Partner
By: GV 2017 GP, L.L.C., its General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

MIR HASHIM

/s/ Mir Hashim
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

AMINA IMRAN

/s/ Amina Imran
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

SHAYLA IMRAN

/s/ Shayla Imran
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

TALAT IMRAN

/s/ Talat Imran
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ABBAS KHORSAND

/s/ Abbas Khorsand
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

AELYA IMRAN

/s/ Aelya Imran
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

INCUBE LABS, LLC

By: /s/ Mir Imran
Name: Mir Imran
Title: President

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

INCUBE VENTURES II, L.P.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Member

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

STEPHANIE MCGRORY

/s/ Stephanie McGrory
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

MAULIK NANAVATY

/s/ Maulik Nanavaty
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

CHANG ONG

/s/ Chang Ong
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

NOVARTIS PHARMACEUTICALS CORPORATION

By: /s/ Marc Ceulemans
Name: Marc Ceulemans
Title: Head Strategic Venture Fund & Pharma Equities

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

CHRISTINE PHAN

/s/ Christine Phan
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

RANI INVESTMENT CORP.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Director

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

SVAI SANFORD

/s/ Svai Sanford
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

MOHSEN SHIRAZI

/s/ Mohsen Shirazi
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

TAKEDA VENTURES, INC.

By: /s/ Michael Martin
Name: Michael Martin
Title: President, Takeda Ventures, Inc.

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

YUHUA LIU

/s/ Yuhua Liu
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ROSS MASON

/s/ Ross Mason
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ABIDA SYED

/s/ Abida Syed
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

SOHAIL SYED

/s/ Sohail Syed
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

DAVID PYOTT LIVING TRUST

By: /s/ David Pyott
Name: David Pyott
Title: Trustee

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

DAVID PYOTT

/s/ David Pyott
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

ANGELA MURCH

/s/ Angela Murch
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

GARY DANG

/s/ Gary Dang
Signature

[Signature Page to the Exchanges Tax Receivable Agreement]

Exhibit A
Form of Joinder

This JOINDER (this "Joinder") to the Tax Receivable Agreement (as defined below), is by and among Rani Therapeutics Holdings, Inc., a Delaware corporation (including any successor corporation the "Corporate Taxpayer"), _____ ("Transferor") and _____ ("Permitted Transferee").

WHEREAS, on _____, Permitted Transferee shall acquire _____ percent of the Transferor's right to receive payments that may become due and payable under the Tax Receivable Agreement (as defined below) (the "Acquired Interests") from Transferor (the "Acquisition"); and

WHEREAS, Transferor, in connection with the Acquisition, has required Permitted Transferee to execute and deliver this Joinder pursuant to Section 7.6(a) of the Tax Receivable Agreement, dated as of [ ], between the Corporate Taxpayer, OpCo and the TRA Parties (as defined therein) (the "Tax Receivable Agreement").

NOW, THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth herein, and intending to be legally bound hereby, the parties hereto agree as follows:

Section 1.1 Definitions. To the extent capitalized words used in this Joinder are not defined in this Joinder, such words shall have the respective meanings set forth in the Tax Receivable Agreement.

Section 1.2 Acquisition. For good and valuable consideration, the sufficiency of which is hereby acknowledged by the Transferor and the Permitted Transferee, the Transferor hereby transfers and assigns absolutely to the Permitted Transferee all of the Acquired Interests.

Section 1.3 Joinder. Permitted Transferee hereby acknowledges and agrees (i) that it has received and read the Tax Receivable Agreement, (ii) that the Permitted Transferee is acquiring the Acquired Interests in accordance with and subject to the terms and conditions of the Tax Receivable Agreement and (iii) to become a "TRA Party" (as defined in the Tax Receivable Agreement) for all purposes of the Tax Receivable Agreement.

Section 1.4 Notice. Any notice, request, consent, claim, demand, approval, waiver or other communication hereunder to Permitted Transferee shall be delivered or sent to Permitted Transferee at the address set forth on the signature page hereto in accordance with Section 7.1 of the Tax Receivable Agreement.

Section 1.5 Governing Law. This Joinder shall be governed by and construed in accordance with the law of the State of Delaware.

IN WITNESS WHEREOF, this Joinder has been duly executed and delivered by Permitted Transferee as of the date first above written.

RANI THERAPEUTICS HOLDINGS, INC.

By: _____
Name:
Title:

[TRANSFEROR]

By: _____
Name:
Title:

[PERMITTED TRANSFEREE]

By: _____
Name:
Title:

Address for notices:

Exhibit 10.2

EXCHANGE AGREEMENT

This Exchange Agreement (this "***Agreement***") is made and entered into as of August 3, 2021, by and between Rani Therapeutics Holdings, Inc., a Delaware corporation (the "***Company***") and the persons and entities (each, a "***Contributor***" and collectively, the "***Contributors***") listed on Schedule I below. Each of the Contributors and the Company shall be known as a "***Party***" herein.

RECITALS

Whereas, each Contributor owns Class B Voting Units ("***Class B Units***") of Rani Therapeutics, LLC ("***Rani LLC***").

Whereas, each Contributor desires to assign, convey, transfer, deliver, and contribute all of his, her, or its, rights, obligations, titles, and other interests in his, her, or its Class B Units to the Company, and the Company desires to accept and assume such rights, obligations, titles, and other interests.

Whereas, in consideration of each Contributor's assignment, conveyance, transfer, delivery, and contribution of his, her, or its Class B Units to the Company, the Company desires to issue and deliver to each such Contributor a number of shares of Class B Common Stock of the Company (the "***Class B Common Stock***") equal to the number of Class B Units received by the Company from such Contributor.

Whereas, the Contributors' contributions of Class B Units to the Company in exchange for Class B Common Stock, taken together with the Company's issuance of shares of Class A Common Stock of the Company (the "***Class A Common Stock***") in the Company's initial public offering (the "***IPO***") and certain exchanges of Class A Common Units of Rani LLC for shares of Class A Common Stock in connection with the IPO, is intended to constitute a transaction described in Section 351 of the Internal Revenue Code of 1986, as amended (the "***Code***").

AGREEMENT

Now, Therefore, in consideration of the mutual promises and covenants herein contained, and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. Contribution of Units. Effective as of the date hereof, each Contributor hereby assigns, conveys, transfers, delivers, and contributes to the Company, and the Company hereby accepts and assumes from Contributor, all of Contributor's right, title, obligations, and other interest in and to the Class B Units owned by such Contributor.

2. Exchange by the Company. Effective as of the date hereof, in consideration of each Contributor's assignment, conveyance, transfer, delivery and contribution to the Company of all of his, her, or its Class B Units, the Company hereby issues and delivers to each such Contributor, and each such Contributor hereby accepts and assumes from the Company, a number of shares of Class B Common Stock equal to the number of Class B Units received by the Company from such Contributor.

3. Company Agreement to be Bound. If and to the extent the Company is not already a member of Rani LLC, the Company hereby agrees to be bound by the terms and conditions of the limited liability company agreement of Rani LLC (the "***LLC Agreement***") as in effect on the date hereof, and hereby assumes all obligations of each Contributor under such LLC Agreement in respect of the Class B Units.

4. Tax Reporting.

a. As of the date hereof, no Contributor has a binding obligation to dispose of any shares of Class B Common Stock received in exchange for Class B Units pursuant to this Agreement.

b. The Contributors' exchange of Class B Units for Class B Common Stock, taken together with the Company's issuance of Class A Common Stock in the IPO and certain exchanges of Class A Common Units of Rani LLC for shares of Class A Common Stock in connection with the IPO, is intended to constitute a transaction described in Section 351 of the Code for U.S. federal income tax purposes. The Parties to this Agreement shall prepare all tax returns consistent with such intended tax treatment, unless otherwise required by applicable law.

c. Notwithstanding anything else in this Agreement, no Party to this Agreement is providing any representations or warranties as to the tax consequences of the transactions contemplated by this Agreement, and each Party is relying solely on its own tax advisors as to such tax consequences, including in the event of any Internal Revenue Service challenge to the intended tax treatment.

5. Tax Withholding. Notwithstanding any other provision in this Agreement, Company, Rani LLC and their agents and affiliates shall have the right to deduct and withhold taxes from any payments to be made pursuant to the transactions contemplated by this Agreement if, in their opinion, such withholding is required by law, and shall be provided with any necessary Tax forms, including Form W-9 (attached hereto as Exhibit A) or an appropriate Form W-8, and any similar information. To the extent that any of the aforementioned amounts are so withheld, such withheld amounts shall be treated for all purposes of this Agreement as having been delivered and paid to the recipient of the payments in respect of which such deduction and withholding was made. To the extent that any payment pursuant to this Agreement is not reduced by such deductions or withholdings, such recipient shall indemnify the applicable withholding agent for any amounts imposed by any taxing authority together with any costs and expenses related thereto.

6. Miscellaneous.

(a) Entire Agreement; Amendment and Waiver. This Agreement, together with any agreements referenced herein, constitutes the full and entire understanding and agreement among the Parties with regard to the subject matter hereof. No Party shall be liable or bound to any third party in any manner with regard to the subject matter hereof by any warranties, representations or covenants except as specifically set forth herein. No amendment, supplement, modification, or waiver of this Agreement shall be binding unless executed in writing by all the Parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (whether or not similar), nor shall such wavier constitute a continuing waiver unless expressly agreed to in writing by the affected party.

(b) Governing Law. This Agreement shall be governed in all respects by the laws of the State of Delaware, without regard to applicable principles of conflicts of law.

(c) Further Assurances. Each Party hereto agrees to execute and deliver all such other and additional instruments and documents and do all such other acts and things as may be necessary to more fully effectuate this Agreement.

(d) Severability. If any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, portions of such provision, or such provision in its entirety, to the extent necessary, shall be severed from this Agreement, and such court will replace such illegal, void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Agreement shall be enforceable in accordance with its terms.

(e) Counterparts. This Agreement may be executed in one or more counterparts, all of which shall be considered one and the same agreement, and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other Parties, it being understood that all Parties need not sign the same counterpart.

(f) Assignment. This Agreement shall be binding upon each of the Parties hereto and their successors and assigns.

(g) Further Assurances. Each party hereto agrees to execute and deliver, by the proper exercise of its corporate, limited liability company, partnership or other powers, all such other and additional instruments and documents and do all such other acts and things as may be necessary to more fully effectuate this Agreement.

(Signature Pages Follow)

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

THE COMPANY:

RANI THERAPEUTICS HOLDINGS, INC.
a Delaware corporation

By: /s/ Talat Imran
Name: Talat Imran
Title: Chief Executive Officer

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Andrew Farquharson**

By: /s/ Andrew Farquharson
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Mir Hashim**
(Print party name)

By: /s/ Mir Hashim
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

INCUBE LABS, LLC

By: /s/ Mir Imran
Name: Mir Imran
Title: President

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI IV

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI III

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

BUTTONWOOD ALPHA QP FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

Address: _____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

GV 2013, L.P.

By: GV 2013 GP, L.L.C.,
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2015, L.P.

By: GV 2015 GP, L.L.C.
Its: General Partner
By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2017, L.P.

By: GV 2017 GP, L.P., its General Partner
By: GV 2017 GP, L.L.C., its General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

Address: _____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

ER IN VESTMENT GROUP 1 LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

ERS I NVESTMENTS LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

Address: _____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

ALPHA SUGARCOAT INVESTMENT LLC

By: /s/ Renee Li
Name: Renee Li
Title: Chief Executive Officer

Address _____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

INCUBE VENTURES II, L.P.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Member

Address: _____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

MEDIMMUNE, LLC

By: /s/ David E. White
Name: David E. White
Title: Treasurer

Address: _____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

NOVARTIS PHARMACEUTICALS CORPORATION

By: /s/ Marc Ceulemans
Name: Marc Ceulemans
Title: Head Strategic Venture Fund & Pharma Equities

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

DAVID PYOTT LIVING TRUST

By: /s/ David Pyott
Name: David Pyott
Title: Trustee

Address: _____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

RANI INVESTMENT CORP.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Director

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

TAKEDA VENTURES, INC.

By: /s/ Michael Martin
Name: Michael Martin
Title: President, Takeda Ventures, Inc.

Address: _____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Aelya Imran**
(Print party name)

By: /s/ Aelya Imran
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email:

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Talat Imran**
(Print party name)

By: /s/ Talat Imran
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Amina Imran**
(Print party name)

By: /s/ Amina Imran
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Sanah Imran**
(Print party name)

By: /s/ Sanah Imran
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Shayla Imran**
(Print party name)

By: /s/ Shayla Imran
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Maulik Nanavaty**
(Print party name)

By: /s/ Maulik Nanavaty
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Abbas Khorsand**
(Print party name)

By: /s/ Abbas Khorsand
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Yuhua Liu**
(Print party name)

By: /s/ Yuhua Liu
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Ross Mason**
(Print party name)

By: /s/ Ross Mason
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Chang Ong**
(Print party name)

By: /s/ Chang Ong
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Christine Phan**
(Print party name)

By: /s/ Christine Phan
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Abida Syed**
(Print party name)

By: /s/ Abida Syed
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

[**Signature Page To Exchange Agreement**]

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Sohail Syed**
(Print party name)

By: /s/ Sohail Syed
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Arthur Chang**
(Print party name)

By: /s/ Arthur Chang
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

In Witness Whereof, the Parties have executed this Exchange Agreement as of the date first written above.

CONTRIBUTOR:

Name: **Gary Dang**
(Print party name)

By: /s/ Gary Dang
(Signature)

Name: _____
(Print name of signatory, if signing for an entity)

Title: _____
(Print title of signatory, if signing for an entity)

Address: _____

_____

Email: _____

Schedule I

Contributors

[...]

Exhibit A

Form W-9

[...]

Exhibit 10.3

REGISTRATION RIGHTS AGREEMENT

BY AND AMONG

RANI THERAPEUTICS HOLDINGS, INC.

AND

THE "INVESTORS"
as defined herein,

Dated as of August 3, 2021

TABLE OF CONTENTS

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT (this "**Agreement**") is made as of the 3rd day of August, 2021, by and among Rani Therapeutics Holdings, Inc., a Delaware corporation (the "**Company**") and each of the Investors listed on Schedule A hereto (together with their successors and Permitted Transferees as provided herein, an "**Investor**") and any Person that becomes a party to this Agreement pursuant to Section 4.10 hereto as an "Investor."

RECITALS

WHEREAS, the Investors hold Registrable Securities (as defined herein).

NOW, THEREFORE, in consideration of the premises and of the mutual covenants and obligations hereinafter set forth, the parties hereto hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital or private equity fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "**Agreement**" has the meaning specified in the Preamble.

1.3 "**Block Sale**" means the sale of Equity Securities to one or several purchasers in a registered transaction by means of (i) a bought deal, (ii) a block trade or (iii) a registered direct sale.

1.4 "**Class A Common Stock**" means the shares of Class A common stock, par value $0.0001 per share, of the Company and any and all securities of any kind whatsoever which may be issued after the date hereof in respect of, or in exchange for, such Class A common stock of the Company pursuant to a merger, consolidation, stock split, stock dividend, conversion or recapitalization of the Company or otherwise.

1.5 "**Company**" has the meaning specified in the Preamble.

1.6 "**Damages**" means any loss, damage or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such loss, damage or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus, issuer free writing prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements therein, a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law.

1.7 "**Demand Notice**" has the meaning specified in Section 2.1(a).

1.8 "**Equity Securities**" means (i) any and all equity securities of the Company held, directly or indirectly, by the Holders from time to time and (ii) any and all other shares of Class A Common Stock or other equity securities of the Company, securities of the Company convertible into, or exchangeable or exercisable for, such shares and options, warrants or other rights to acquire such shares of Class A Common Stock or other equity securities.

1.9 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.10 "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which either (A) no Class A Common Stock is being registered or (B) the only Class A Common Stock being registered is Class A Common Stock issuable upon conversion of debt securities that are also being registered.

1.11 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.12 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.13 "**Fund Indemnitees**" has the meaning specified in Section 2.9(e).

1.14 "**Fund Indemnitors**" has the meaning specified in Section 2.9(e).

1.15 "**Holder**" means any other holder of Registrable Securities who is a party to this Agreement.

1.16 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law, including adoptive relationships, of a natural Person referred to herein.

1.17 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.18 "**Investor**" has the meaning specified in the Preamble.

1.19 "**IPO**" means the Company's first underwritten public offering of its Class A Common Stock pursuant to an effective registration statement under the Securities Act.

1.20 "**Permitted Transferee**" has the meaning set forth in the Rani LLC Agreement.

1.21 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.22 "**Rani LLC**" means Rani Therapeutics, LLC, a California limited liability company, and its successors.

1.23 "**Rani LLC Agreement**" means the Fifth Amended and Restated Limited Liability Company Agreement of Rani LLC, dated as of August 3, 2021, as may be amended, amended and restated, or otherwise modified from to time.

1.24 "**Registrable Securities**" means (i) any shares of Class A Common Stock held by the Holders at any time; (ii) any shares of Class A Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company held by the Holders at any time; (iii) any shares of Class A Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above held by the Holders; or (iv) any shares of Class A Common Stock that may be delivered in exchange for equity interests in Rani LLC pursuant to the terms of the Rani LLC Agreement held by the Holders. As to any

particular Registrable Securities, such securities shall cease to be Registrable Securities when (A) a registration statement with respect to the sale of such securities shall have been declared effective under the Securities Act and such securities shall have been disposed of in accordance with such registration statement, (B) such securities shall have been sold (other than in a privately negotiated sale where the transferor has assigned its rights under this Agreement and the transferee agrees in writing to be bound by the terms hereof) in compliance with the requirements of SEC Rule 144, as such SEC Rule 144 may be amended (or any successor provision thereto) or (C) the registration rights have terminated with respect to such securities pursuant to Section 2.13 of this Agreement.

1.25 "**SEC**" means the Securities and Exchange Commission.

1.26 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.27 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.28 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.29 "**Shelf Underwritten Offering**" has the meaning specified in Section 2.2.

1.30 "**Take-Down Notice**" has the meaning specified in Section 2.2.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. Subject to Section (c), if the Company receives a request from any Investor at any time after ninety (90) days following the closing of an IPO (so as to effect the registration one hundred eighty (180) days following an IPO, or as soon as reasonably practicable thereafter) that the Company file a Form S-1 registration statement, then the Company shall (i) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (ii) as soon as practicable and within sixty (60) days after the date such request is given by the Initiating Holders but in no event earlier than the earlier of (x) one hundred eighty (180) days following an IPO or (y) the effective date of the underwriters' waiver of the any of the restrictions set forth in the applicable lock-up agreement entered into in connection with an IPO, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.4.

(b) Form S-3 Demand. Subject to Section (c), if at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from at least 15% of the Registrable Securities held by Investors that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities, then the Company shall (x) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within thirty (30) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.4. If the Company is a WKSI at the time of any request for Registration in this Section (b), such Form S-3 shall be an automatic shelf registration statement.

(c) Limitations on Registration. The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section (a) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be then be eligible to be registered on Form S-3 pursuant to a request made pursuant to Section (b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section (b) if the Company has effected two (2) registrations pursuant to Section (b) within the twelve (12)-month

period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Section (c) (i) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration and elect not to pay the registration expenses pursuant to Section 2.7, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section (c); provided, however, in the event that a withdrawal by the Holders is based upon material adverse information relating to the Company that is different from the information known or available (upon request from the Company or otherwise) to the Holders requesting registration at the time of their request for registration under this Section 2.1, such registration shall not be treated as "effected" for purposes of this Section 2.1, even though the Holders do not bear the registration expenses for such registration, (ii) if such registration statement is not maintained effective for the period required pursuant to Section 2.5(a) or (iii) if the offering of the Registrable Securities pursuant to such registration statement is subject to a stop order, injunction or similar order or requirement of the SEC during such period, in which case, such requesting holder of Registrable Securities shall be entitled to an additional registration pursuant to Section (a) in lieu thereof.

(d) At any time before a registration statement covering Registrable Securities becomes effective, the Initiating Holders may request the Company to withdraw or not to file a registration statement. In addition, in the event that a registration statement covering such Registrable Securities is not declared effective within 120 days from the date of first filing with the SEC, the Initiating Holders shall not be deemed to have used one of the registration rights pursuant to Section (c).

(e) Delay in Filing. If the Company furnishes to the Initiating Holders requesting a registration pursuant to Section (a) or Section (b) a certificate signed by the chief executive officer or the chief financial officer of the Company stating that in the good faith judgment of the Board of Directors of the Company (after consultation with external legal counsel) it would have a material adverse effect on the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective because such action would (i) materially and adversely interfere with a significant acquisition, corporate reorganization or other similar transaction involving the Company; (ii) require premature disclosure of material, non-public information that the Company has a *bona fide* business purpose for preserving as confidential and which would be required to be made in, or incorporated into, such registration statement so that such registration statement would not contain any untrue statement of material fact or omit to state a material fact necessary in order to make the statements made therein, in the light of the circumstances under which they were made, not misleading; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, in each case, the Company shall have the right, upon giving prompt written notice of such action to the Initiating Holders requesting such registration, to delay the filing or initial effectiveness (but not the preparation) of, or suspend use of, such registration statement, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than forty five (45) days after the request of the Initiating Holders is given; provided that the Company may not invoke this right only once in any twelve (12) month period; provided, further, that the Company shall not deliver a suspension notice pursuant to this Section (e) unless all of the Company's executive officers and directors are similarly prohibited from effecting any public sales of securities of the Company beneficially owned by them for the duration of such suspension period; and provided, further, that the Company shall not register any securities for its own account or that of any other stockholder during such forty five (45) day period other than pursuant to a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or a registration in which the only Class A Common Stock being registered is Class A Common Stock issuable upon conversion of debt securities that are also being registered. If the Company so delays the filing or the effectiveness of, or suspends the use of, a registration statement, the Initiating Holder shall be entitled, within fifteen (15) days after receipt of such written notice, to withdraw such registration request and, if such registration request is withdrawn, such registration request shall not count for the purposes of the limitations set forth in Section (c).

2.2 Shelf Take-Downs. At any time that a Form S-3 registration statement covering Registrable Securities is effective, subject to Section 2.1(c) and Section 2.1(e), if any of the Investors delivers a notice to the Company (a "**Take-Down Notice**") stating that it intends to effect an underwritten offering of all or part of its Registrable Securities included by it on the Form S-3 registration statement (a "**Shelf Underwritten Offering**"), then

the Company shall amend or supplement the Form S-3 registration statement as may be necessary in order to enable such Registrable Securities to be distributed pursuant to the Shelf Underwritten Offering:

(a) with respect to any Take-Down Notice that does not pertain to a Block Sale, within two (2) days of receipt of such Take-Down Notice, the Company shall also deliver the Take-Down Notice to all Holders other than the proposing Holder included on such Form S-3 registration statement and permit each Holder to include its Registrable Securities included on the Form S-3 registration statement in the Shelf Underwritten Offering if such Holder notifies the proposing Holder and the Company within five (5) days after delivery (including via e-mail, if available) of the Take-Down Notice to such Holder;

(b) with respect to any Take-Down Notice pertaining to a Block Sale, within one (1) business day of receipt of such Take-Down Notice, the Company shall also deliver the Take-Down Notice to all Holders other than the proposing Holder included on such Form S-3 registration statement and permit each Holder to include its Registrable Securities included on the Form S-3 registration statement in the Block Sale if such Holder notifies the proposing Holder and the Company within one (1) day after delivery (including via e-mail, if available) of the Take-Down Notice to such Holder; and

(c) in the event that the underwriter advises such proposing Holder and the Company in its good faith opinion that the total number or dollar amount of Registrable Securities proposed to be sold in such offering is such as to adversely affect the success of such offering (including, without limitation, adversely affect the per share offering price), then the underwriter may limit the number of shares which would otherwise be included in such take-down offering in the same manner as described in Section 2.4(a) with respect to a limitation of shares to be included in a registration.

2.3 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its Class A Common Stock under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.4, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.3 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration; provided, however, the Company shall not have the right to withdraw the registration of the Registrable Securities unless it is also terminating or withdrawing the registration initiated by it under this Section 2.3 for its own securities. The expenses (excluding underwriting discounts and commissions) of such withdrawn registration shall be borne by the Company in accordance with Section 2.7.

2.4 Underwriting Requirements.

(a) If, pursuant to Section 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1, and the Company shall include such information in the Demand Notice. In the case of a registration pursuant to Section 2.1(a), the underwriter(s) will be selected by a majority-in-interest of the Initiating Holders and shall be reasonably acceptable to the Company. In the case of a registration pursuant to Section 2.3, the underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority-in-interest of the Holders who have requested to be included in such registration. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.5(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 2.4, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall

be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder; provided, however, that the number of Registrable Securities held by the Initiating Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.3, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, (ii) the number of Registrable Securities included in the offering be reduced below twenty five percent (25%) of the total number of securities included in such offering, or (iii) notwithstanding (ii) above, any Registrable Securities which are Registrable Securities held by the Investors be excluded from such underwriting unless all other Registrable Securities (other than securities to be sold by the Company) are first excluded from such offering. For purposes of the provision in this Section (b) concerning apportionment, for any selling Holder that is a partnership, limited liability company or corporation, the partners, members, retired partners, retired members, stockholders and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any *pro rata* reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Section 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Section (a), fewer than fifty percent (50%) of the total number of Registrable Securities that the Initiating Holders have requested to be included in such registration statement are actually included.

2.5 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities, as expeditiously as reasonably practicable, and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Initiating Holders, keep such registration statement effective for a period of up to one hundred eighty (180) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred eighty (180) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Class A Common Stock (or other securities) of the Company, from selling any securities included in such registration and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred eighty (180) day period shall be extended for up to two (2) years, if necessary, to keep the registration statement effective until all such Registrable Securities are sold; provided, further, that at least five (5) days before filing a registration statement or any amendments or supplements thereto (including documents that would be incorporated or deemed to be incorporated therein by

reference), the Company shall furnish or otherwise make available to the holders of the Registrable Securities covered by such registration statement, their counsel and the managing underwriters, if any, copies of all such documents proposed to be filed, which documents will be subject to the reasonable review and comment of the Investors' counsel and such other documents reasonably requested by such counsel, including any comment letter from the SEC; provided, further, that the Company shall not file any such registration statement or any amendments or supplements thereto (including such documents that, upon filing, would be incorporated or deemed to be incorporated by reference therein) with respect to a registration pursuant to Section 2.1(a) to which the holders of a majority of the Registrable Securities covered by such registration statement, their counsel, or the managing underwriters, if any, shall reasonably object, in writing, on a timely basis, unless, in the opinion of the Company, such filing is necessary to comply with applicable law;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, the prospectus used in connection with such registration statement or any other required document as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders, its counsel and each managing underwriter, if any, without charge, such number of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act or as may be reasonably requested, and such other documents as such selling Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering, and make such representations and warranties in the underwriting agreement to the holders of such Registrable Securities and the underwriters, if any, with respect to the business of the Company and its subsidiaries, and the registration statement, prospectus and documents, if any, incorporated or deemed to be incorporated by reference therein, in each case, in form, substance and scope as are customarily made by issuers to underwriters in underwritten offerings, and, if true, confirm the same if and when reasonably requested;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) use its commercially reasonable efforts to furnish, (i) an opinion, dated as of the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and reasonably satisfactory to a majority in interest of the Holders requesting registration of Registrable Securities and (ii) "comfort" letters dated as of the date such Registrable Securities are priced and on the date that such Registrable Securities are delivered to the underwriters for sale, in each case if such securities are being sold through underwriters, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters;

(h) provide and caused to be maintained a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(i) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents and properties of the Company, and cause the Company's officers, directors, employees and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(j) use its commercially reasonable efforts to comply with all applicable rules and regulations of the SEC, and make available to its security holders, as soon as reasonably practicable, an earnings statement covering the period of at least twelve months, but not more than eighteen months, beginning with the first month after the effective date of the registration statement, which earnings statement shall satisfy the provisions of Section 11(a) of the Securities Act;

(k) use its reasonable best efforts to obtain the withdrawal of any order suspending the effectiveness of a registration statement, or the lifting of any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction at the earliest date reasonably practicable;

(l) use its commercially reasonable efforts to qualify such Registrable Securities for inclusion on the automated quotation system of the National Association of Securities Dealers, Inc., or such other national securities exchange on which any shares of Class A Common Stock are listed or quoted, or, if the Class A Common Stock is not then listed or quoted, use commercially reasonable efforts to list such Registrable Securities on a national securities exchange as the holders of a majority of such Registrable Securities shall reasonably request;

(m) notify each selling Holder and such selling Holder's counsel, promptly after the Company receives notice thereof, of the time (i) when such registration statement has been declared effective; (ii) a supplement to any prospectus forming a part of such registration statement has been filed; (iii) of the receipt by the Company of any notification with respect to any comments by the SEC with respect to such registration statement or prospectus or any amendment or supplement thereto or any request by the SEC for the amending or supplementing thereof or for additional information with respect thereto, (iv) of the receipt by the Company of any notification with respect to the issuance by the SEC of any stop order suspending the effectiveness of such registration statement or prospectus or any amendment or supplement thereto or the initiation or threatening of any proceeding for that purpose, and (v) of the receipt by the Company of any notification with respect to the suspension of the qualification of such Registrable Securities for sale in any jurisdiction or the initiation or threatening of any proceeding for such purposes ; or (vi) of the happening of any event that makes any statement made in such registration statement or related prospectus, free writing prospectus, amendment or supplement thereto, or any document incorporated or deemed to be incorporated therein by reference, as then in effect, untrue in any material respect or that requires the making of any changes in such documents so that, in the case of the registration statement, it will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, not misleading, and that in the case of the prospectus, it will not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading (which notice shall notify the selling Holders only of the occurrence of such an event and shall provide no additional information regarding such event to the extent such information would constitute material non-public information);

(n) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus; and

(o) otherwise use commercially reasonable efforts to take all other steps necessary to effect the registration of such Registrable Securities contemplated hereby.

2.6 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the

intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.7 Expenses of Registration. All expenses (other than underwriting discounts and commissions) incurred in connection with registrations, filings or qualifications pursuant to Section 2, including all registration, filing, qualification, listing and ratings agency fees; printers' and accounting fees; Securities Act liability insurance if the Company so desires or any underwriters require; and fees and disbursements of counsel for the Company and the Holders who shall have such Registrable Securities effected in registration, shall be borne and paid by the Company, whether or not any registration statement is filed or becomes effective. All underwriting discounts and commissions relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders *pro rata* on the basis of the number of Registrable Securities registered on their behalf.

2.8 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.9 Indemnification. If any Registrable Securities are included in a registration statement whether or not pursuant to this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter, broker or any other Person acting on behalf of the Holders , against any Damages, and the Company will pay to each such Holder, controlling Person or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section (a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably delayed, conditioned or withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section (b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably delayed, conditioned or withheld; provided, further, that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under this Section (b) and Section (d) exceed the proceeds from the offering actually received by such Holder (net of any underwriting discounts and commissions paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.9 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.9, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with

any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.9 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.9 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.9, then, and in each such case, such parties will contribute to the aggregate losses, claims, Damages, liabilities or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions or other actions that resulted in such loss, claim, Damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; provided, further, that in no event shall a Holder's liability pursuant to this Section (d), when combined with the amounts paid or payable by such Holder pursuant to Section (b), exceed the proceeds from the offering received by such Holder (net of any underwriting discounts and commissions paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) The Company hereby acknowledges that certain Holders (the "**Fund Indemnitees**") may have rights to indemnification, advancement of expenses and/or insurance with respect to their service on the Board of Directors of the Company or otherwise in connection with their involvement with the Company provided by other Persons (collectively, the "**Fund Indemnitors**"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to the Fund Indemnitee are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by the Fund Indemnitees are secondary), (ii) that it shall be required to advance the full amount of expenses incurred by the Fund Indemnitees and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the certificate of incorporation or bylaws of the Company (or any other agreement between the Company and the Fund Indemnitees), without regard to any rights the Fund Indemnitees may have against the Fund Indemnitors, and, (iii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of the Fund Indemnitees with respect to any claim for which the Fund Indemnitees have sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of the Fund Indemnitees against the Company. The Company and the Fund Indemnitors agree that the Fund Indemnitees are express third party beneficiaries of the terms of this Section (e).

(f) The obligations of the Company and Holders under this Section 2.9 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.10 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.11 Limitations on Subsequent Registration Rights; No Inconsistent Agreement.

(a) From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities held by all Holders, enter into any agreement with any holder or prospective holder of any securities of the Company that (A) would provide to such holder the right to include securities in any registration on other than either a *pro rata* basis with respect to the Registrable Securities or on a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities that they wish to so include or (B) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder; provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Section 4.10.

(b) The Company hereby represents that, as of the date hereof, the rights granted to the Holders of Registrable Securities hereunder do not in any way conflict with and are not inconsistent with any other agreements to which the Company is a party or by which it is bound.

2.12 "Market Stand-off" Agreement. If requested by the Company and an underwriter of Class A Common Stock or any other Equity Securities of the Company, each Holder shall not, without the prior written consent of the managing underwriter(s), during the period commencing on the date of the final prospectus relating to the registration by the Company of shares of its Class A Common Stock or any other Equity Securities under the Securities Act on a registration statement on Form S-1 or Form S-3, and ending on the date specified by the Company and the managing underwriter (such period not to exceed ninety (90) days or such other period as may be requested by the Company or an underwriter), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Class A Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Class A Common Stock held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Class A Common Stock or other securities, in cash, or otherwise; provided that all executive officers and directors of the Company are bound by and have entered into

similar agreements unless waived by the Holders, which waiver shall be in the sole discretion of the Holders. The foregoing provisions of this Section 2.12 shall not apply to (i) the registration and sale of any Registrable Securities on a registration statement on Form S-1 or Form S-3 or (ii) the sale of any shares by the Holders to an underwriter pursuant to an underwriting agreement (including any Registrable Securities), or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or an Immediate Family Member of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided, further, that any such transfer shall not involve a disposition for value. The underwriters in connection with such registration are intended third-party beneficiaries of this Section 2.12 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. If requested by the Company and an underwriter of Class A Common Stock (or other securities) of the Company, each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 2.12 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply *pro rata* to all Holders subject to such agreements, based on the number of shares subject to such agreements.

2.13 Termination of Registration Rights. The right of any Holder to request inclusion of Registrable Securities in any registration pursuant to Section 2.1 shall terminate and be of no further force or effect at such time after the IPO that such Holder holds less than 1% of the Company's then outstanding Class A Common Stock (treating for this purpose all shares of Class A Common Stock issuable upon exercise of or conversion of outstanding options, warrants or convertible securities, as if exercised or convertedf); provided, that such Holder's rights and obligations pursuant to Section 2.9, as well as the Company's obligations to pay expenses pursuant to Section 2.7, shall survive with respect to any registration statement in which any Registrable Securities of such Holder were included and, for the avoidance of doubt, any underwriter lock-up pursuant to Section 2.12 that a Holder has executed prior to a Holder's termination in accordance with this clause shall remain in effect in accordance with its terms.

3. Hedging Transactions. The parties agree that the provisions of this Agreement relating to the registration, offer and sale of Registrable Securities apply also to (i) any transaction which transfers some or all of the economic risk of ownership of Registrable Securities, including any forward contract, equity swap, put or call, put or call equivalent position, collar, margin loan, sale of exchangeable security or similar transaction (including the registration, offer and sale under the Securities Act of Registrable Securities pledged to the counterparty to such transaction or of securities of the same class as the underlying Registrable Securities by the counterparty to such transaction in connection therewith), and that the counterparty to such transaction shall be selected in the sole discretion of the Holders and (ii) any derivative transactions in which a broker-dealer, other financial institution or unaffiliated Person may sell Registrable Securities covered by any prospectus and the applicable prospectus supplement including short sale transactions using Registrable Securities pledged by a Holder or borrowed from the Holder or others and Registrable Securities loaned, pledged or hypothecated to any such party. The prospectus shall permit, in connection with derivative transactions, a broker-dealer, other financial institution or third party to sell shares of the Registrable Securities covered by such prospectus and the applicable prospectus supplement, including in short sale transactions.

4. Miscellaneous.

4.1 Nominees for Beneficial Owners. If Registrable Securities are held by a nominee for the beneficial owner thereof, the beneficial owner thereof may, at its option, be treated as the Holder of such Registrable Securities for purposes of any request or other action by any Holder or Holders of Registrable Securities pursuant to this Agreement, provided that the Company shall have received assurances reasonably satisfactory to it of such beneficial ownership, written confirmation from such nominee and the beneficial owner agrees to be bound by the terms of this Agreement, including Section 2.12.

4.2 Amendments and Waivers. Except as otherwise provided herein, no modification, amendment or waiver of any provision of this Agreement shall be effective against the Company or any Holder unless such modification, amendment or waiver is approved in writing by the Company and the Holders of a majority of the Registrable Securities then outstanding. No waiver of any of the provisions of this Agreement shall be deemed to or shall constitute a waiver of any other provision hereof (whether or not similar). No failure or delay on the part of any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof or of any other or future exercise of any such right, power or privilege.

4.3 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by e-mail during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the Investors at their addresses as set forth on Schedule A hereto, or to the principal office of the Company and to the attention of the Chief Financial Officer, in the case of the Company, or to such facsimile number or address as subsequently modified by written notice given in accordance with this Section 4.3. If notice is given to the Company or to the Investors, a copy shall be sent to such party at the addresses set forth below:

if to the Company, to:

Rani Therapeutics Holdings, Inc.
2051 Ringwood Avenue
San Jose, CA 95131
Attention: Chief Financial Officer
Email: svai@ranitherapeutics.com

with a copy (which shall not constitute notice) to

Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304-1130
Attention: Josh Seidenfeld
Email: jseidenfeld@cooley.com

if to the Investors, to:

[c/o
[Address]
Attention:
Email:]

with a copy (which shall not constitute notice) to

Wilson Sonsini Goodrich & Rosati, P.C.
650 Page Mill Road
Palo Alto, CA 94304
Attention: Adam Bloom
Email: abloom@wsgr.com

4.4 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities in accordance with the Company's organizational documents and the Rani LLC Agreement provided, however, that (A) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (B) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.11. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (i) that is an Affiliate or stockholder of a Holder; (ii) who is a Holder's Immediate Family Member; or (iii) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided, further, that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and

conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein. If any Holder shall acquire additional Registrable Securities, such Registrable Securities shall be subject to all of the terms, and entitled to all the benefits, of this Agreement.

4.5 Governing Law; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of Delaware or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of Delaware. Any dispute relating hereto shall be heard in the state or federal courts of Delaware, and the parties agree to exclusive jurisdiction and venue therein and waive any objection based on venue or forum non conveniens with respect to any action instituted therein. TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, THE PARTIES HERETO HEREBY IRREVOCABLY WAIVE ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

4.6 Heading; Interpretations. The headings in this Agreement are for convenience of reference only and shall not limit or otherwise affect the meaning hereof. All Section references are to this Agreement unless otherwise expressly provided. When used in this Agreement, the words “include,” “includes” and “including” are to be read as if they were followed by the phrase “without limitation.”

4.7 Severability. Any term or provision of this Agreement which is invalid or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity or unenforceability without rendering invalid or unenforceable the remaining terms and provisions of this Agreement or affecting the validity or enforceability of any of the terms or provisions of this Agreement in any other jurisdiction.

4.8 Specific Performance. The parties hereto acknowledge that there would be no adequate remedy at law if any party fails to perform any of its obligations hereunder, and accordingly agree that each party, in addition to any other remedy to which it may be entitled at law or in equity, shall be entitled to injunctive relief, including specific performance, to enforce such obligations without the posting of any bond, and, if any action should be brought in equity to enforce any of the provisions of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law. All remedies, either under this Agreement, by law, or otherwise afforded to any party, shall be cumulative and not alternative.

4.9 Further Assurances. Each party hereto shall do and perform or cause to be done and performed all such further acts and things and shall execute and deliver all such other agreements, certificates, instruments and documents as any other party hereto reasonably may request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

4.10 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues to any Person additional Class A Common Stock or equity interests convertible into or exercisable for shares of Class A Common Stock, such Person may become an “Investor” pursuant to this Agreement with the prior written consent of the Investors holding a majority of the Registrable Securities held by all Investors by (i) executing and delivering an additional counterpart signature page to this Agreement, and (ii) agreeing in writing to be bound by all of the obligations of an “Investor” hereunder. Thereafter, each additional Investor shall be deemed an “Investor” for all purposes hereunder.

4.11 Entire Agreement. This Agreement (including any Schedules hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

4.12 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any

waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

4.13 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument. For purposes of this Agreement, a document (or signature page thereto) signed and transmitted by facsimile machine or other electronic means (including pdf) is to be treated as an original document. The signature of any party on any such document, for purposes hereof, is to be considered as an original signature, and the document transmitted is to be considered to have the same binding effect as an original signature on an original document. At the request of any party, any facsimile or other electronic signature is to be re-executed in original form by the party which executed the facsimile or other electronic signature. No party may raise the use of a facsimile machine or other electronic means, or the fact that any signature was transmitted through the use of a facsimile machine or other electronic means, as a defense to the enforcement of this Agreement.

[*Remainder of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

COMPANY:

RANI THERAPEUTICS HOLDINGS, INC.

By: /s/ Talat Imran
Name: Talat Imran
Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

ALPHA SUGARCOAT INVESTMENT LLC

By: /s/ Renee Li
Name: Renee Li
Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI IV

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI III

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

BUTTONWOOD ALPHA QP FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

ER INVESTMENT GROUP 1 LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

ERS INVESTMENTS LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

GV 2013, L.P.

By: GV 2013 GP, L.L.C.,
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2015, L.P.

By: GV 2015 GP, L.L.C.
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2017, L.P.

By: GV 2017 GP, L.P., its General Partner
By: GV 2017 GP, L.L.C., its General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

INCUBE LABS, LLC

By: /s/ Mir Imran
Name: Mir Imran
Title: President

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

INCUBE VENTURES II, L.P.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Member

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

MEDIMMUNE, LLC

By: /s/ David E. White
Name: David E. White
Title: Treasurer

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

NOVARTIS PHARMACEUTICALS CORPORATION

By: /s/ Marc Ceulemans
Name: Marc Ceulemans
Title: Head of Strategic Venture Fund & Pharma Equities

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

RANI INVESTMENT CORP.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Director

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

TAKEDA VENTURES, INC.

By: /s/ Michael Martin
Name: Michael Martin
Title: President, Takeda Ventures, Inc.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

ANDREW FARQUHARSON

/s/ Andrew Farquharson
(Signature)

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

TALAT IMRAN

/s/ Talat Imran
(Signature)

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

DAVID PYOTT LIVING TRUST

By: /s/ David Pyott
Name: David Pyott
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

DAVID PYOTT

/s/ David Pyott
(Signature)

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

ANGELA MURCH

/s/ Angela Murch
(Signature)

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

DENNIS AUSIELLO

By: /s/ Dennis Ausiello

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

ARVINDER DHALLA

By: /s/ Arvinder Dhalla

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

MIR HASHIM

By: /s/ Mir Hashim

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

STEPHANIE MCGRORY

By: /s/ Stephanie McGrory

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

MAULIK NANAVATY

By: /s/ Maulik Nanavaty

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

CHRISTINE PHAN

By: /s/ Christine Phan

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

SVAI SANFORD

By: /s/ Svai Sanford

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

MOHSEN SHIRAZI

By: /s/ Mohsen Shirzai

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

BETSY GUTIERREZ

By: /s/ Betsy Gutierrez

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

GARY DANG

By: /s/ Gary Dang

SCHEDULE A
Investors
[...]

JOINDER TO

REGISTRATION RIGHTS AGREEMENT

March 18, 2022

Reference is made to that certain Registration Rights Agreement (as may be further amended and/or restated from time to time, the "***Registration Rights Agreement***"), dated as of August 3, 2021, by and among Rani Therapeutics Holding, Inc., a Delaware corporation (the "***Company***"), and each investor listed on Schedule A of the Registration Rights Agreement together with their successors and Permitted Transferees as provided for in the Registration Rights Agreement (each, an "***Investor***"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to such terms in the Registration Rights Agreement.

The undersigned hereby acknowledges and agrees that its signature below constitutes an executed counterpart to the Registration Rights Agreement and hereby agrees to, and does become a party to, the Registration Rights Agreement as an Investor thereunder.

Notwithstanding the foregoing, the undersigned further agrees to be bound by, and to comply with, all provisions contained in the Registration Rights Agreement as an Investor. This Joinder shall serve as a counterpart signature page to the Registration Rights Agreement and by executing below the undersigned is deemed to have executed the Registration Rights Agreement with the same force and effect as if originally named a party thereto.

The undersigned hereby acknowledges that it has received a copy of the Registration Rights Agreement. For purposes of notices under the Registration Rights Agreement, the address of the undersigned Investor is set forth on its signature page below.

[*Remainder of Page Intentionally Left Blank.*]

Accordingly, the undersigned have duly executed this joinder as of the date first set forth above.

INVESTOR

AEQUANIMITAS LIMITED PARTNERSHIP
By its general partner Aequanimitas Management LLC

/s/ Isidoro Quiroga Cortés
By: Isidoro Quiroga Cortés
Title: Manager

Address:

Accordingly, the undersigned have duly executed this joinder as of the date first set forth above.

INVESTOR:

SOUTH LAKE ONE LLC

/s/ Isidoro Quiroga Moreno
By: Isidoro Quiroga Moreno
Title: President

/s/ Luis Felipe Correa González
By: Luis Felipe Correa González
Title: President

Address:

Agreed and Accepted by the Company:

RANI THERAPEUTICS HOLDINGS, INC.

By: /s/ Talat Imran
Name: Talat Imran
Title: Chief Executive Officer

Exhibit 10.4

RANI THERAPEUTICS, LLC

FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT

Dated as of August 3, 2021

THE UNITS REPRESENTED BY THIS FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED, OR UNDER ANY OTHER APPLICABLE SECURITIES LAWS. SUCH UNITS MAY NOT BE SOLD, ASSIGNED, PLEDGED OR OTHERWISE DISPOSED OF AT ANY TIME WITHOUT EFFECTIVE REGISTRATION UNDER SUCH ACT AND LAWS OR EXEMPTION THEREFROM, AND COMPLIANCE WITH THE OTHER SUBSTANTIAL RESTRICTIONS ON TRANSFERABILITY SET FORTH HEREIN.

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EXHIBIT AND SCHEDULES

RANI THERAPEUTICS, LLC

FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT

THIS FIFTH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT, dated as of August 3, 2021, is entered into by and among Rani Therapeutics, LLC, a California limited liability company (the "**Company**"), Rani Therapeutics Holdings, Inc., a Delaware corporation ("**PubCo**"), and the Members, and is made effective as of the Effective Time. Capitalized terms used herein without definition shall have the meanings assigned to such terms in Article I.

RECITALS

WHEREAS, the Company and certain of the Members entered into the Fourth Amended and Restated Limited Liability Company Agreement of the Company, dated as of October 30, 2020 (as amended, the "**Prior Agreement**").

WHEREAS, on March 7, 2021, the Board of Managers (as defined in the Prior Agreement) of the Company approved an "Up-C IPO structure" pursuant to which PubCo desires to effect a proposed underwritten initial public offering of shares of its Class A common stock (the "**IPO**").

WHEREAS, immediately prior to the Effective Time and in contemplation of the IPO, (i) all outstanding Profits Interests automatically converted into a fewer number of Common Units that are not subject to a "Profits Interest Threshold Amount" (as defined in the Prior Agreement) and ceased to exist as Common Units that are Profits Interests pursuant to Sections 12 and 13(a) of the Company's 2016 Equity Incentive Plan (the "**Profits Interest Conversion**"), and (ii) all outstanding Preferred Units automatically converted into Common Units pursuant to Section 3.13(b)(i) of the Prior Agreement and ceased to exist as Preferred Units, as agreed by the Board of Managers of the Company on June 14, 2021, and approved by a "Majority in Interest of the Members" (as defined in the Prior Agreement) and a "Majority in Interest of the Preferred Members" (as defined in the Prior Agreement) (the "**Preferred Unit Conversion**").

WHEREAS, at the Effective Time, (i) all Common Units received in the Profits Interest Conversion are, automatically without any further action on the part of the Company and the Members, reclassified and changed into Class A Common Units, and cease to exist as Common Units; and (ii) all other Common Units (including Common Units received in the Preferred Unit Conversion) are, automatically without any further action on the part of the Company and the Members, reclassified and changed into Class A Common Units paired with a corresponding number of Class B Voting Units as set forth herein, and shall cease to exist as Common Units (the conversions described in this recital, the "**Recapitalization**").

WHEREAS, after the Effective Time and prior to the effectiveness of PubCo's initial public offering (the "**Pre-IPO Effective Time**"), certain holders of Class A Common Units will contribute all of their Class A Common Units to PubCo in exchange for Class A Common Stock, immediately after which the holders of Class B Voting Units will contribute all of their Class B Voting Units to PubCo in exchange for Class B Common Stock (the exchanges described in this recital, the "**Pre-IPO Exchanges**," and the agreements pursuant to which the Pre-IPO Exchanges are effected, the "**Exchange Agreements**").

WHEREAS, immediately following the Pre-IPO Exchanges, (i) PubCo, as holder of all the Class B Voting Units, designates itself as, and is hereby admitted to the Company as, Managing Member, and in such capacity shall have the rights and obligations as provided in this Agreement, and (ii) PubCo shall use the net proceeds received from the IPO to purchase Class A Common Units from the Company.

WHEREAS, the Company, PubCo, and a Majority in Interest of the Members desire to amend and restate the Prior Agreement in its entirety as set forth herein effective as of the Effective Time, at which time the Prior Agreement will be superseded entirely by this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound, hereby agree to amend and restate the Prior Agreement to read in its entirety as follows:

ARTICLE I

DEFINITIONS

The following definitions shall be applied to the terms used in this Agreement for all purposes, unless otherwise clearly indicated to the contrary.

"**Additional Member**" means a Person admitted to the Company as a Member pursuant to Section 10.2.

"Adjusted Capital Account Balance" means, with respect to each Member, the balance in such Member's Capital Account adjusted (i) by taking into account the adjustments, allocations and distributions described in Treasury Regulations Sections 1.704-1(b)(2)(ii)(d)(4), (5) and (6); and (ii) by adding to such balance such Member's share of Company Minimum Gain and Member Nonrecourse Debt Minimum Gain, determined pursuant to Treasury Regulations Sections 1.704-2(g) and 1.704-2(i)(5), any amounts such Member is obligated to restore pursuant to any provision of this Agreement or by applicable law. The foregoing definition of Adjusted Capital Account Balance is intended to comply with the provisions of Treasury Regulations Section 1.704-1(b)(2)(ii)(d) and shall be interpreted consistently therewith.

"**Admission Date**" has the meaning set forth in Section 9.4.

"**Affiliate**" of any Person means any Person that directly or indirectly controls, is controlled by, or is under common control with the Person in question.

"**Agreement**" means this Fifth Amended and Restated Limited Liability Company Agreement of Rani Therapeutics, LLC.

"**Appraiser FMV**" means the fair market value of any Equity Security as determined by an independent appraiser mutually agreed upon by the Managing Member and the relevant Exchanging Member, whose determination shall be final and binding for those purposes for which Appraiser FMV is used in this Agreement. Appraiser FMV shall be the fair market value determined without regard to any discounts for minority interest, illiquidity or other discounts. The cost of any independent appraisal in connection with the determination of Appraiser FMV in accordance with this Agreement shall be borne by the Company.

"**Articles**" means the Company's Articles of Organization as filed with the Secretary of State of the State of California, as amended or amended and restated from time to time.

"**Assignee**" means a Person to whom any Units have been Transferred in accordance with the terms of this Agreement but who has not become a Member pursuant to Article X.

"**Assumed Tax Rate**" means the highest effective marginal combined U.S. federal, state and local income tax rate (including the tax imposed under Section 1411 of the Code on net investment income) for a Taxable Year prescribed for an individual or corporate resident in California or New York, New York (whichever results in the application of the highest state and local tax rate for a given type of income), and taking into account (a) the limitations imposed on the deductibility of expenses and other items, (b) the character (e.g., long-term or short-term capital gain or ordinary or exempt income) of the applicable income, and (c) the deductibility of state and local income taxes, to the extent applicable (and with any dollar limitation on state and local income tax deductibility assumed to be exceeded), but not taking into account any deduction under Section 199A of the Code or any similar state or local law, as determined in good faith by the Managing Member. For the avoidance of doubt, the Assumed Tax Rate shall be the same for all Members.

"**Base Rate**" means, on any date, a variable rate per annum equal to the rate of interest most recently published by The Wall Street Journal as the "prime rate" at large U.S. money center banks.

"**Board**" means the board of directors of PubCo, as constituted at any given time.

"**Book Value**" means with respect to any asset, the asset's adjusted basis for U.S. federal income tax purposes, except that (i) the initial Book Value of any asset contributed by a Member to the Company shall be the gross Fair Market Value of such asset; (ii) the Book Value of any property of the Company distributed to any Member shall be adjusted to equal the gross Fair Market Value of such property on the date of distribution; and (iii) the Book Values of assets of the Company shall be increased (or decreased) to the extent the Managing Member determines reasonably and in good faith that such adjustment is necessary or appropriate to comply with the provisions of Treasury Regulations Section 1.704-1(b)(2)(iv).

"**Business Day**" means any day, other than a Saturday, Sunday or any other day on which commercial banks located in the State of New York are authorized or obligated by law or executive order to close.

"California Act" means the California Revised Uniform Limited Liability Company Act, Title 2.6, California Corporations Code, Section 17701.01 et seq., as it may be amended from time to time, and any successor to the California Act.

"**Capital Account**" means the capital account maintained for a Member pursuant to Section 3.3.

"**Capital Contribution**" means any cash, cash equivalents, promissory obligations or the Fair Market Value of other property which a Member contributes to the Company pursuant to Section 3.1.

"**Capital Stock**" shall mean any and all shares, interests, participations or other equivalents (however designated) of capital stock of a corporation, any and all equivalent ownership interests in a Person (other than a corporation) including, without limitation, partnership or membership interests (including any components thereof such as capital accounts, priority returns or the like) in a limited partnership or limited liability company and any and all warrants, rights or options to purchase any of the foregoing.

"**Cash Exchange Notice**" has the meaning set forth in Section 12.1(b).

"**Cash Exchange Payment**" means with respect to a particular Exchange for which PubCo has elected to make a Cash Exchange Payment in accordance with Section 12.1(b):

(i) if the Class A Common Stock trades on a National Securities Exchange or automated or electronic quotation system, an amount of cash equal to the product of (x) the number of shares of Class A Common Stock that would have been received by the Exchanging Member in the Exchange for that portion of the Class A Common Units subject to the Exchange set forth in the Cash Exchange Notice if PubCo had paid the Stock Exchange Payment with respect to such number of Class A Common Units, and (y) the Class A 3-Day VWAP; or

(ii) if the Class A Common Stock is not then traded on a National Securities Exchange or automated or electronic quotation system, as applicable, an amount of cash equal to the product of (x) the number of shares of Class A Common Stock that would have been received by the Exchanging Member in the Exchange for that portion of the Class A Common Units subject to the Exchange set forth in the Cash Exchange Notice if PubCo had paid the Stock Exchange Payment with respect to such number of Class A Common Units, for which PubCo has elected to make a Cash Exchange Payment and (y) the Appraiser FMV of one (1) share of Class A Common Stock that would be obtained in an arms-length transaction between an informed and willing buyer and an informed and willing seller, neither of whom is under any compulsion to buy or sell, respectively, and without regard to the particular circumstances of the buyer or seller.

"**Certificate Delivery**" means, in the case of any shares of Paired Voting Stock to be transferred and surrendered by an Exchanging Member in connection with an Exchange which are represented by a certificate or certificates, the process by which the Exchanging Member shall also present and surrender such certificate or

certificates representing such shares of Paired Voting Stock during normal business hours at the principal executive offices of PubCo, or if any agent for the registration or transfer of shares of Paired Voting Stock is then duly appointed and acting, at the office of such transfer agent, along with any instruments of transfer reasonably required by the Managing Member or such transfer agent, as applicable, duly executed by the Exchanging Member or the Exchanging Member's duly authorized representative.

"**Class A 3-Day VWAP**" means, on any relevant measurement date, the VWAP for five (5) consecutive Trading Days ending on such date.

"**Class A Common Stock**" means the Class A common stock, par value $0.0001 per share, of PubCo.

"**Class A Common Units**" means the limited liability company interests described in Section 3.1(a)(i) and having the rights, powers and preferences specified herein.

"**Class B Common Stock**" means the Class B common stock, par value $0.0001 per share, of PubCo.

"**Class C Common Stock**" means the Class C common stock, par value $0.0001 per share, of PubCo.

"**Class B Voting Units"** means the limited liability company interests described in Section 3.1(a)(ii) and having the rights, powers and preferences specified herein.

"**Code**" means the United States Internal Revenue Code of 1986, as amended.

"**Common Units**" shall mean the issued and outstanding Common Units, as defined in the Prior Agreement, as of immediately prior to the Effective Time.

"**Company**" means Rani Therapeutics, LLC, a California limited liability company.

"Company Minimum Gain" has the meaning ascribed to the term "partnership minimum gain" set forth in Treasury Regulations Sections 1.704-2(b)(2) and 1.704-2(d).

"**Continuing Member**" means each member receiving Class A Common Units in the Recapitalization for so long as such Member continues to hold such Class A Common Units after the Pre-IPO Exchanges.

"**Continuing Member Representative**" means ICL or any Affiliate of ICL designated in writing by ICL to PubCo, the Company and each of the Continuing Members after the Effective Time.

"**Covered Transaction**" means any Liquidity Event or any other sale, redemption or Transfer of Units.

"**DGCL**" means the General Corporation Law of the State of Delaware.

"**Distribution**" means each distribution made by the Company to a Member, whether in cash, property or securities of the Company and whether by liquidating distribution or otherwise; *provided* that none of the following shall be a Distribution: (a) any redemption or repurchase by the Company of any securities, or (b) any recapitalization or exchange of securities of the Company, or any subdivision (by Unit split or otherwise) or any combination (by reverse Unit split or otherwise) of any outstanding Units.

"**DTC**" means The Depository Trust Company.

"**Effective Time**" means such time as is immediately prior to the Pre-IPO Effective Time.

"**Equity Securities**" means, with respect to any Person, all of the shares of capital stock or equity of (or other ownership or profit interests in) such Person, all of the warrants, options or other rights for the purchase or acquisition from such Person of shares of capital stock or preferred interests or equity of (or other ownership or profit interests in) such Person, all of the securities convertible into or exchangeable for shares of capital stock or equity of (or other

ownership or profit interests in) such Person, including convertible debt securities, or warrants, rights or options for the purchase or acquisition from such Person of such shares or equity (or such other interests), restricted stock awards, restricted stock units, equity appreciation rights, phantom equity rights, profit participation and all of the other ownership or profit interests of such Person (including partnership or member interests therein), whether voting or nonvoting.

"**ERISA**" means the Employee Retirement Income Security Act of 1974, as amended.

"**Event of Withdrawal**" means the death, retirement, resignation, expulsion, bankruptcy or dissolution of a Member or the occurrence of any other event that terminates the continued membership of a Member in the Company.

"**Exchange**" means (a) the redemption by the Company of vested Class A Common Units held by a Member (together with the surrender and cancellation of the same number of outstanding shares of Paired Voting Stock held by such Member) for either (i) a Stock Exchange Payment or (ii) a Cash Exchange Payment, or (b) the direct purchase by PubCo of vested Class A Common Units and Paired Voting Stock held by a Member in accordance with a PubCo Call Right, in each case in accordance with Section 12.6.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and applicable rules and regulations thereunder, and any successor to such statute, rules or regulations. Any reference herein to a specific section, rule or regulation of the Exchange Act shall be deemed to include any corresponding provisions of future law.

"**Exchange Agreements**" has the meaning set forth in the Recitals.

"**Exchange Blackout Period**" means (i) any "black out" or similar period under PubCo's policies covering trading in PubCo's securities to which the applicable Exchanging Member is subject (or will be subject at such time as it owns Class A Common Stock), which period restricts the ability of such Exchanging Member to immediately resell shares of Class A Common Stock to be delivered to such Exchanging Member in connection with a Stock Exchange Payment and (ii) the period of time commencing on (x) the date of the declaration of a dividend by PubCo and ending on the first day following (y) the record date determined by the Board with respect to such dividend declared pursuant to clause (x), which period of time shall be no longer than 10 Business Days; *provided* that in no event shall an Exchange Blackout Period which respect to clause (ii) of the definition hereof occur more than four (4) times per calendar year.

"**Exchange Conditions**" means any of the following conditions:

(i) in the event of a valid request for registration pursuant to the Registration Rights Agreement, (a) PubCo shall have failed to cause any related prospectus to be supplemented by any required prospectus supplement necessary to effect such Exchange, (b) PubCo shall have exercised its right to defer, delay or suspend the filing or effectiveness of a Registration Statement and such deferral, delay or suspension shall affect the ability of such Exchanging Member to have its Class A Common Stock registered at or immediately following the consummation of the Exchange, (c) any stop order relating to the Registration Statement pursuant to which the Class A Common Stock was to be registered by such Exchanging Member at or immediately following the Exchange shall have been issued by the Securities and Exchange Commission, (d) there shall be in effect an injunction, a restraining order or a decree of any nature of any Governmental Entity that restrains or prohibits the Exchange, or (e) PubCo shall have failed to comply in any material respect with its obligations under the Registration Rights Agreement to the extent related to the resale of the Class A Common Stock of an Exchanging Member, and such failure shall have adversely affected the ability of such Exchanging Member to consummate the resale of Class A Common Stock to be received upon such Exchange pursuant to an effective Registration Statement; (ii) PubCo shall have disclosed in good faith to such Exchanging Member any material non-public information concerning PubCo, the receipt of which results in such Exchanging Member being prohibited or restricted from selling Class A Common Stock at or immediately following the Exchange without disclosure of such information (and PubCo does not permit disclosure); (iii) there shall have occurred a material disruption in the securities markets generally or in the market or markets in which the Class A Common Stock is then traded; (iv) there shall be in effect an injunction, a restraining order or a decree of any nature of any Governmental Entity that restrains or prohibits the Exchange; or (v) the Exchange Date would occur three (3) Business Days or less prior to, or during, an Exchange Blackout Period. For purposes of clarity, the matters contemplated in clauses (ii)

through (v) above shall constitute an Exchange Condition regardless of the existence of a valid request for registration pursuant to the Registration Rights Agreement.

"**Exchange Date**" means the date that is five (5) Business Days after the Exchange Notice Date is given; *provided*, that if an Exchanging Member delays the consummation of an Exchange by delivering an Exchange Delay Notice, the Exchange Date shall occur on the date that is three (3) Business Days following the date on which the conditions giving rise to such delay cease to exist which shall in no event be prior to the date otherwise determined pursuant to this definition (or such earlier day as the Managing Member and such Exchanging Member may agree in writing); *provided, further*, that if the Exchange Date for any Exchange with respect to which PubCo elects to make a Stock Exchange Payment would otherwise fall within any Exchange Blackout Period, then the Exchange Date shall occur on the next Business Day following the end of such Exchange Blackout Period.

"Exchange Delay Notice" has the meaning set forth in Section 12.1(c).

"**Exchange Notice**" means a written election of Exchange in the form of Exhibit A, duly executed by the Exchanging Member.

"**Exchange Notice Date**" means, with respect to any Exchange Notice, the date such Exchange Notice is given to the Company in accordance with Section 12.1.

"**Exchanged Units**" means, with respect to any Exchange, the Class A Common Units being exchanged pursuant to a relevant Exchange Notice, and an equal number of shares of Paired Voting Stock held by the relevant Exchanging Member; *provided*, that, such amount of Class A Common Units shall in no event be less than the Minimum Exchange Amount.

"**Exchanging Member**" means a Member initiating an Exchange.

"**Exempt Transfer**" has the meaning set forth in Section 9.1(b).

"**Fair Market Value**" means, with respect to any asset or equity interest, its fair market value determined according to Article XIV.

"**Family Group**" means a Member's spouse, parents, siblings and descendants (whether by birth or adoption) and any trust (whether revocable or irrevocable) or other estate planning vehicle established solely for the benefit of such Member and/or such Member's spouse and/or such Member's descendants (by birth or adoption), parents, siblings or dependents, or any charitable trust the grantor of which is such Member and/or member of such Member's Family Group.

"**Fiscal Year**" means the Company's annual accounting period established pursuant to Section 7.2.

"**Founder Ownership Percentage**" means the percentage obtained by dividing (i) the total number of Class A Common Units owned by the Founder Members by (ii) the aggregate number of Class A Common Units outstanding at such time.

"**Founder Members**" means ICL, Mir Imran, Talat Imran, Sanah Imran, InCube Ventures II, L.P., Rani Investment Corp., Biologix Partners, LP, and VH Rani, LP, and their respective Permitted Transferees or any other transferee of such Founder Member pursuant to a transfer included in clauses (i) through (iv) of the definition of an Exempt Transfer.

"**Fund Indemnitees**" has the meaning set forth in Section 6.4(e).

"**Fund Indemnitors**" has the meaning set forth in Section 6.4(e).

"**Governmental Entity**" means the United States of America or any other nation, any state or other political subdivision thereof, or any entity exercising executive, legislative, judicial, regulatory or administrative functions of government.

"**ICL**" means InCube Labs, LLC, a Delaware limited liability company.

"**Imputed Underpayment Amount**" has the meaning set forth in Section 4.6(d).

"**Income Amount**" has the meaning set forth in Section 4.1(c)(i).

"**Indemnified Person**" has the meaning set forth in Section 6.4(a).

"**Liquidity Event**" means, whether occurring through one transaction or a series of related transactions, any liquidation, dissolution or winding up, voluntary or involuntary, of the Company.

"**Lock-up Period**" has the meaning set forth in Section 12.1(a).

"**Managing Member**" means the person designated as such pursuant to Section 5.1, which shall be PubCo as of the effectiveness of PubCo's admission as an Additional Member pursuant to Section 10.2, or any successor Managing Member admitted to the Company in accordance with the terms of this Agreement, in its capacity as the managing member of the Company.

"**Member**" means each of the Persons from time to time admitted to the Company as a member of the Company and listed as a Member in the books and records of the Company, each in its capacity as a member of the Company.

"Member Nonrecourse Debt Minimum Gain" means an amount with respect to each partner nonrecourse debt (as defined in Treasury Regulations Section 1.704-2(b)(4)) equal to the Company Minimum Gain that would result if such partner nonrecourse debt were treated as a nonrecourse liability (as defined in Treasury Regulations Section 1.752-1(a)(2)) determined in accordance with Treasury Regulations Section 1.704-2(i)(3).

"Member Nonrecourse Deductions" has the meaning ascribed to the term "partner nonrecourse deductions" set forth in Treasury Regulations Section 1.704-2(i)(2).

"**Minimum Exchange Amount**" means a number of Class A Common Units held by an Exchanging Member equal to (x) if such Exchanging Member holds more than 50,000 Class A Common Units as of the date hereof, the lesser of (1) 50,000 Class A Common Units and (2) ten percent (10%) of the Class A Common Units held by the applicable Exchanging Member as of the date hereof or (y) to the extent such Exchanging Member holds 50,000 Class A Common Units or less as of the date hereof, the lesser of (1) twenty-five percent (25%) of the Class A Common Units held by the applicable Exchanging Member as of the date hereof and (2) all of the Class A Common Units then held by the applicable Exchanging Member.

"**National Securities Exchange**" means a securities exchange registered with the Securities and Exchange Commission under Section 6 of the Exchange Act.

"**Net Loss**" means, with respect to a Taxable Year, the excess, if any, of Losses for such Taxable Year over Profits for such Taxable Year (excluding Losses and Profits specially allocated pursuant to this Agreement).

"**Net Profit**" means, with respect to a Taxable Year, the excess, if any, of Profits for such Taxable Year over Losses for such Taxable Year (excluding Profits and Losses specially allocated pursuant to this Agreement).

"**Non-Foreign Person Certificate**" has the meaning set forth in Section 12.9(a).

"Nonrecourse Deductions" has the meaning set forth in Treasury Regulations Section 1.704-2(b)(1). The amount of Nonrecourse Deductions of the Company for a Fiscal Year equals the net increase, if any, in the amount of

Company Minimum Gain of the Company during that fiscal year, determined according to the provisions of Treasury Regulations Section 1.704-2(c).

"**Paired Voting Stock**" means, with respect to Class A Common Units held by a Member other than PubCo (and other than Class A Common Units received in the Recapitalization in exchange for Common Units received in the Profits Interest Conversion), the shares of Class B Common Stock issued in exchange for the Class B Voting Units initially paired with such Class A Common Units, subject, as applicable, to adjustment pursuant to Section 3.2(d) and Section 3.2(e) and the certificate of incorporation of PubCo.

"**Participate**" (and the correlative terms "**Participating**" and "**Participation**") includes any direct or indirect ownership interest in any enterprise or participation in the management of such enterprise, whether as an officer, director, employee, partner, sole proprietor, agent, representative, independent contractor, consultant, executive, franchisor, franchisee, creditor, owner or otherwise.

"**Participating Unit**" means, with respect to any Distribution (or other allocation of proceeds) pursuant to Section 4.1(b) or Section 4.1(c) hereof, any Class A Common Unit.

"**Partnership Representative**" has the meaning set forth in Section 8.3.

"**Permitted Transferee**" means any transferee in an Exempt Transfer pursuant to clause (i) of the definition thereof.

"**Person**" means an individual or a corporation, partnership, limited liability company, trust, unincorporated organization, association or other entity.

"**Piggyback Registration**" is defined in the Registration Rights Agreement.

"**Profits Interests**" shall mean all of the issued and outstanding Profits Interests, as defined in the Prior Agreement, as of immediately prior to the Effective Time.

"**Prior Agreement**" has the meaning set forth in the Recitals.

"**Profits**" or "**Losses**" means items of Company income and gain or loss and deduction for an applicable tax accounting period determined for purposes of maintaining the Capital Account of each Member under Section 3.3 and in accordance with Section 704(b) of the Code and the Treasury Regulations promulgated thereunder.

"**PubCo**" means Rani Therapeutics Holdings, Inc., a corporation incorporated under the laws of the State of Delaware, and its successors.

"**PubCo Offer**" has the meaning set forth in Section 3.2(c)(ii).

"**Recapitalization**" has the meaning set forth in the Recitals.

"**Registration Rights Agreement**" means the Registration Rights Agreement, dated as of the date hereof, by and among PubCo, certain of the Members and the other parties thereto (together with any other parties that become a party thereto from time to time upon execution of a joinder in accordance with the terms thereof by any successor or assign to any party to such Registration Rights Agreement).

"**Registration Statement**" means any registration statement that PubCo is required to file pursuant to the Registration Rights Agreement.

"**Securities Act**" means the Securities Act of 1933, as amended, and applicable rules and regulations thereunder, and any successor to such statute, rules or regulations. Any reference herein to a specific section, rule or regulation of the Securities Act shall be deemed to include any corresponding provisions of future law.

"**Securities and Exchange Commission**" means the United States Securities and Exchange Commission, including any governmental body or agency succeeding to the functions thereof.

"**Similar Law**" means any law or regulation that could cause the underlying assets of the Company to be treated as assets of the Member by virtue of its limited liability company interest in the Company and thereby subject the Company and the Managing Member (or other Persons responsible for the investment and operation of the Company's assets) to laws or regulations that are similar to the fiduciary responsibility or prohibited transaction provisions contained in Title I of ERISA or Section 4975 of the Code.

"**Stock Exchange Payment**" means, with respect to any Exchange for which a Cash Exchange Notice is not in effect, a number of shares of Class A Common Stock equal to the number of Class A Common Units subject to such Exchange.

"**Subsidiary**" means, with respect to any Person, any corporation, limited liability company, partnership, association or business entity of which (i) if a corporation, a majority of the total voting power of shares of stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by that Person or one or more of the other Subsidiaries of that Person or a combination thereof, or (ii) if a limited liability company, partnership, association or other business entity (other than a corporation), a majority of partnership or other similar ownership interest thereof is at the time owned or controlled, directly or indirectly, by any Person or one or more Subsidiaries of that Person or a combination thereof. For purposes hereof, a Person or Persons shall be deemed to have a majority ownership interest in a limited liability company, partnership, association or other business entity (other than a corporation) if such Person or Persons shall be allocated a majority of limited liability company, partnership, association or other business entity gains or losses or shall be or control any manager, managing director or general partner of such limited liability company, partnership, association or other business entity. For purposes hereof, references to a "Subsidiary" of the Company shall be given effect only at such times that the Company has one or more Subsidiaries, and, unless otherwise indicated, the term "Subsidiary" refers to a Subsidiary of the Company.

"**Substituted Member**" means a Person that is admitted as a Member to the Company pursuant to Section 10.1.

"**Tax Distributions**" has the meaning set forth in Section 4.1(c).

"**Tax Estimation Period**" means each period from January 1 through March 31, from April 1 through May 31, from June 1 through August 31, and from September 1 through December 31 of each Taxable Year.

"**Tax Matters Member**" has the meaning set forth in Section 8.3.

"**Tax Receivable Agreement**" means the Tax Receivable Agreement dated as of or about the date hereof among the Company, the Managing Member and the other parties from time to time party thereto, as amended from time to time.

"**Taxable Year**" means the Company's accounting period for federal income tax purposes determined pursuant to Section 8.2.

"**Trading Day**" means a day on which Nasdaq or such other principal United States securities exchange on which the Class A Common Stock is listed, quoted or admitted to trading and is open for the transaction of business (unless such trading shall have been suspended for the entire day).

"**Transfer**" has the meaning set forth in Section 9.1(a).

"**Transferor's Owner**" has the meaning set forth in Section 9.1(c)(i).

"**Treasury Regulations**" means the income tax regulations promulgated under the Code, as amended.

"**Units**" means, collectively, the Class A Common Units, the Class B Voting Units and such other units of the Company as may be authorized, designated or issued, as determined by the Managing Member from time to time after the date hereof.

"**Unvested Class A Common Stock**" has the meaning set forth in Section 3.1(b)(iv).

"**Unvested Class A Common Units**" has the meaning set forth in Section 3.1(b)(ii).

"**VWAP**" means the daily per share volume-weighted average price of the Class A Common Stock on Nasdaq or such other principal United States securities exchange on which the shares of Class A Common Stock are listed, quoted or admitted to trading, as displayed under the heading Bloomberg VWAP on the Bloomberg page designated for the Class A Common Stock (or the equivalent successor if such page is not available) in respect of the period from the open of trading on such Trading Day until the close of trading on such Trading Day (or if such volume-weighted average price is unavailable, (a) the per share volume-weighted average price of a share of Class A Common Stock on such Trading Day (determined without regard to afterhours trading or any other trading outside the regular trading session or trading hours), or (b) if such determination is not feasible, the market price per share of Class A Common Stock as determined by a nationally recognized independent investment banking firm retained in good faith for this purpose by PubCo); *provided*, however, that if at any time for purposes of the Class A 3-Day VWAP shares of Class A Common Stock are not then listed, quoted or traded on a principal United States securities exchange or automated or electronic quotation system, then the VWAP shall mean the per share Appraiser FMV of one (1) share of Class A Common Stock (or such other Equity Security into which the Class A Common Stock was converted or exchanged).

ARTICLE II

ORGANIZATIONAL MATTERS

2.1 Formation of Company. The Company was formed on February 21, 2012, in accordance with the laws of the State of California.

2.2 Limited Liability Company Agreement. The Members hereby execute this Agreement for the purpose of establishing the affairs of the Company and the conduct of its business in accordance with the provisions of the California Act. This Agreement amends and restates the Prior Agreement in its entirety and shall constitute the "operating agreement" (as that term is used in the California Act) of the Company effective as of the Effective Time. The Members hereby agree that during the term of the Company set forth in Section 2.7 the rights and obligations of the Members with respect to the Company will be determined in accordance with the terms and conditions of this Agreement and the California Act. On any matter upon which this Agreement is silent, the California Act shall control. No provision of this Agreement shall be in violation of the California Act and to the extent any provision of this Agreement is in violation of the California Act, such provision shall be void and of no effect to the extent of such violation without affecting the validity of the other provisions of this Agreement; *provided*, *however*, that where the California Act provides that a provision of the California Act shall apply "unless otherwise provided in an operating agreement" or words of similar effect, the provisions of this Agreement shall in each instance control.

2.3 Name. The name of the Company shall be "Rani Therapeutics, LLC". The Managing Member in its sole discretion may change the name of the Company at any time and from time to time in accordance with the California Act. Notification of any such change shall be given to all of the Members. The Company's business may be conducted under its name and/or any other name or names deemed advisable by the Managing Member.

2.4 Purpose. The purpose and business of the Company shall be any business which may lawfully be conducted by a limited liability company formed pursuant to the California Act.

2.5 Powers. The powers of the Company shall be all powers necessary or convenient to carry out the purposes for which it is organized, including the powers granted by the California Act.

2.6 Principal Office; Registered Office. The principal office of the Company shall be such place as the Managing Member may from time to time designate. The Company may maintain offices at such other place or places as the Managing Member deems advisable. Notification of any such change shall be given to all of the Members. The address of the registered office of the Company in the State of California shall be 330 N Brand Blvd, STE 700, Glendale, CA 91203, and the registered agent for service of process on the Company in the State of California at such registered office shall be C T Corporation System.

2.7 Term. The term of the Company commenced upon the filing of the Articles in accordance with the California Act and shall continue in existence until dissolution thereof in accordance with the provisions of Article XIII. The existence of the Company as a separate legal entity shall continue until cancellation of the Articles as provided in the California Act.

2.8 No State-Law Partnership. The Members intend that the Company not be a partnership (including, without limitation, a limited partnership) or joint venture, and that no Member be a partner or joint venturer of any other Member by virtue of this Agreement, for any purposes other than as set forth in Section 2.9, and neither this Agreement nor any other document entered into by the Company or any Member relating to the subject matter hereof shall be construed to suggest otherwise.

2.9 Tax Treatment. The Members intend that the Company shall be treated as a partnership for federal and applicable state or local income tax purposes, and that each Member and the Company shall file all tax returns and shall otherwise take all tax and financial reporting positions in a manner consistent with and actions necessary to obtain such treatment.

2.10 Prior Agreements. For the avoidance of doubt, all prior limited liability company agreements amongst the Company and its members, including all amendments thereto, shall govern and control for all periods prior to the date hereof.

ARTICLE III

CAPITALIZATION; CAPITAL CONTRIBUTIONS

3.1 Capitalization.

(a) Each Member shall hold Units, and the relative rights, powers, privileges, preferences and obligations with respect to each Member's Units shall be determined under this Agreement and the California Act based upon the number and the class of Units held by such Member. The number and the class of Units held by each Member shall be set forth in the books and records of the Company. The classes of Units as of the Effective Time are as follows: "Class A Common Units" and "Class B Voting Units." The Members shall have no right to vote on any matter, except as specifically set forth in this Agreement, or as may be required under the California Act. Any such vote shall be at a meeting of the Members entitled to vote or in writing as provided herein.

(i) Class A Common Units. The Class A Common Units shall have all the rights, powers, privileges and obligations as are specifically provided for in this Agreement for Class A Common Units, and as may otherwise be generally applicable to all classes of Units, unless such application is specifically limited to one or more other classes of Units. Notwithstanding anything to the contrary contained herein, the holders of Class A Common Units shall not be entitled to vote on any matter subject to a vote of the Members, except as otherwise required by law and on any such matter the holders of Class A Common Units shall be entitled to one (1) vote per Class A Common Unit.

(ii) Class B Voting Units. The holders of Class B Voting Units shall be entitled to ten (10) votes per Class B Voting Unit with respect to any designation of the Managing Member pursuant to Section 5.1 or designation of an additional Managing Member or substitute Managing Member pursuant to Section 10.3, and shall not be entitled to any other rights, powers, privileges or obligations under this Agreement.

(b) On the date hereof and in connection with the IPO, the following shall have occurred or will occur:

(i) Immediately prior to the Effective Time, the Profits Interest Conversion and the Preferred Unit Conversion were consummated.

(ii) At the Effective Time, the Recapitalization is hereby consummated. Pursuant to the Recapitalization, any Class A Common Units received in exchange for Common Units subject to vesting not accelerated in connection with the IPO shall continue to vest in accordance with the vesting schedule applicable to such Profits Interests (such Class A Common Units subject to vesting, the "**Unvested Class A Common Units**").

(iii) Immediately after the Effective Time, the Pre-IPO Exchanges shall be consummated. Any shares of Class A Common Stock received in respect of Unvested Class A Common Units in a Pre-IPO Exchange shall continue to vest in accordance with the same vesting schedule as such Unvested Class A Common Units (the "**Unvested Class A Common Stock**").

(iv) Each holder of Unvested Class A Common Stock shall be required to make a valid and timely election in respect of such Unvested Class A Common Stock and protective election in respect of such Unvested Class A Units, in each case, pursuant to Section 83(b) of the Code and to provide evidence of such election to PubCo and the Company.

(v) Upon any forfeiture of Unvested Class A Common Stock pursuant to the Restricted Stock Award Agreement under the PubCo 2021 Equity Incentive Plan, PubCo shall automatically forfeit the corresponding Unvested Class A Common Units.

(vi) The Members agree that immediately following the Effective Time, no fractional Class A Common Unit will remain outstanding and any fractional Class A Common Unit held by a Member shall be rounded down to the nearest whole number.

(c) Subject to the terms of this Agreement (including this Section 3.1 and Section 3.2), the Managing Member in its sole discretion may establish and issue, from time to time in accordance with such procedures as the Managing Member shall determine from time to time, additional Units, in one or more classes or series of Units, or other Company securities, at such price, and with such designations, preferences and relative, participating, optional or other special rights, powers and duties (which may be senior to existing Units, classes and series of Units or other Company securities), as shall be determined by the Managing Member without the approval of any Member or any other Person who may acquire an interest in any of the Units, including (i) the right of such Units to share in Profits and Losses or items thereof; (ii) the right of such Units to share in Company distributions; (iii) the rights of such Units upon dissolution and winding up of the Company; (iv) whether, and the terms and conditions upon which, the Company may or shall be required to redeem such Units (including sinking fund provisions); (v) whether such Units are issued with the privilege of conversion or exchange and, if so, the terms and conditions of such conversion or exchange; (vi) the terms and conditions upon which such Units will be issued, evidenced by certificates and assigned or transferred; (vii) the terms and conditions of the issuance of such Units (including, without limitation, the amount and form of consideration, if any, to be received by the Company in respect thereof, the Managing Member being expressly authorized, in its sole discretion, to cause the Company to issue such Units for less than fair market value); and (viii) the right, if any, of the holder of such Units to vote on Company matters, including matters relating to the relative designations, preferences, rights, powers and duties of such Units. Notwithstanding any other provision of this Agreement, the Managing Member in its sole discretion, without the approval of any Member or any other Person, is authorized (i) to issue Units or other Company securities of any newly established class or any existing class to Members or other Persons who may acquire an interest in the Company; (ii) to amend this Agreement to reflect the creation of any such new class, the issuance of Units or other Company securities of such class, and the admission of any Person as a Member which has received Units or other Company securities; and (iii) to effect the combination, subdivision and/or reclassification of outstanding Units as may be necessary or appropriate to give economic effect to equity investments in the Company by the Managing Member that are not accompanied by the issuance by the Company to the Managing Member of additional Units and to update the books and records of the Company accordingly. Except as expressly provided in this Agreement to the contrary, any reference to "Units" shall include

the Class A Common Units, Class B Voting Units, and Units of any other class or series that may be established in accordance with this Agreement. All Units of a particular class shall have identical rights in all respects as all other Units of such class, except in each case as otherwise specified in this Agreement.

(d) All Units issued hereunder shall be uncertificated unless otherwise determined by the Managing Member.

(e) To the extent information is required to be disclosed to any Member pursuant to this Agreement or the California Act, pursuant to Section 17704.10 of the California Act, each Member acknowledges and agrees that portions of this Agreement may be redacted by the Managing Member or information herein may otherwise be aggregated by the Managing Member to prevent disclosure of confidential information with respect to individual allocations of employee Equity Securities.

(f) Each Member who is issued Units by the Company pursuant to the authority of the Managing Member pursuant to Section 5.1 shall make the Capital Contributions to the Company determined by the Managing Member pursuant to the authority of the Managing Member pursuant to Section 5.1 in exchange for such Units.

(g) Each Member, to the extent having the right to consent thereto, by executing this Agreement, hereby confirms, ratifies and approves the transactions contemplated by this Agreement and the other agreements and transactions referred to herein.

3.2 General Provisions with Respect to Units.

(a) New PubCo Issuances.

(i) Subject to Article XII and Section 3.2(a)(ii), if, at any time after the Effective Time, PubCo issues shares of its Class A Common Stock, shares of Class C Common Stock, or any other Equity Security of PubCo (other than shares of Class B Common Stock), (x) the Company shall concurrently issue to PubCo an equal number of Class A Common Units (if PubCo issues shares of Class A Common Stock or Class C Common Stock), or an equal number of such other Equity Security of the Company corresponding to the Equity Securities issued by PubCo (if PubCo issues Equity Securities other than Class A Common Stock or Class C Common Stock), and with the same rights to distributions (including distributions upon liquidation) and other economic rights as those of such Equity Securities of PubCo so issued and (y) PubCo shall concurrently contribute to the Company the net proceeds or other property received by PubCo, if any, for such share of Class A Common Stock, Class C Common Stock, or other Equity Security.

(ii) Notwithstanding anything to the contrary contained in Section 3.2(a)(i) or Section 3.2(a)(iii), this Section 3.2(a) shall not apply to (x) the issuance and distribution to holders of shares of PubCo Equity Securities of rights to purchase Equity Securities of PubCo under a "poison pill" or similar shareholder rights plan (and upon exchange of Class A Common Units for Class A Common Stock, such Class A Common Stock shall be issued together with a corresponding right under such plan) or (y) the issuance under PubCo's employee benefit plans of any warrants, options, stock appreciation right, restricted stock, restricted stock units, performance based award or other rights to acquire Equity Securities of PubCo or rights or property that may be converted into or settled in Equity Securities of PubCo, but shall in each of the foregoing cases apply to the issuance of Equity Securities of PubCo in connection with the exercise or settlement of such warrants, options, stock appreciation right, restricted stock units, performance based awards or the vesting of restricted stock (including as set forth in clause (iii) below, as applicable).

(iii) In the event any outstanding Equity Security of PubCo is exercised or otherwise converted and, as a result, any shares of Class A Common Stock, Class C Common Stock or other Equity Securities of PubCo are issued, (x) the corresponding Equity Security outstanding at the Company, if any, shall be similarly exercised or otherwise converted, if applicable, (y) an equivalent number of Class A Common Units or equivalent Equity Securities of the Company shall be issued to PubCo as required by the first sentence of Section 3.2(a)(i), and (z) PubCo shall as soon as practicable following such exercise or

conversion contribute to the Company the net proceeds received by PubCo from any such exercise or conversion.

(b) New Company Issuances. Except pursuant to Article XII, (x) the Company may not issue any additional Class A Common Units to PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) unless (i) substantially simultaneously therewith PubCo or such Subsidiary issues or transfers an equal number of newly-issued shares of Class A Common Stock or Class C Common Stock (or relevant Equity Security of such Subsidiary) to another Person or Persons, and (ii) such issuance is in accordance with Section 3.2(a), and (y) the Company may not issue any other Equity Securities of the Company to PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) unless (i) substantially simultaneously therewith PubCo or such Subsidiary issues or transfers, to another Person, an equal number of newly-issued shares of Equity Securities of PubCo or such Subsidiary with substantially the same rights to dividends and distributions (including distributions upon liquidation) and other economic rights as those of such Equity Securities of the Company, and (ii) such issuance is in accordance with Section 3.2(a).

(c) Repurchases and Redemptions.

(i) Subject to Section 3.2(c)(ii), PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) may redeem, repurchase or otherwise acquire (A) shares of Class A Common Stock or Class C Common Stock pursuant to a Board approved repurchase plan or program (or otherwise in connection with a transaction approved by the Board) and, substantially simultaneously therewith, the Company shall redeem, repurchase or otherwise acquire from PubCo or such Subsidiary an equal number of Class A Common Units for the same price per security, if any, or (B) any other Equity Securities of PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) pursuant to a Board approved repurchase plan or program (or otherwise in connection with a transaction approved by the Board) and, substantially simultaneously therewith, the Company shall redeem, repurchase or otherwise acquire from PubCo or such Subsidiary an equal number of the corresponding class or series of Equity Securities of the Company with the same rights to dividends and distributions (including distributions upon liquidation) and other economic rights as those of such Equity Securities of PubCo or such Subsidiary for the same price per security, if any.

(ii) In the event that a tender offer, share exchange offer, or take-over bid or similar transaction with respect to Class A Common Stock and Class C Common Stock, if any (a "**PubCo Offer**"), is proposed by PubCo or is proposed to PubCo or its stockholders, the holders of Class A Common Units shall be permitted to participate in such PubCo Offer by delivery of an Exchange Notice (which Exchange Notice shall be effective immediately prior to the consummation of such PubCo Offer (and, for the avoidance of doubt, shall be contingent upon such PubCo Offer and not be effective if such PubCo Offer is not consummated)). In the case of a PubCo Offer proposed by PubCo, PubCo shall use its reasonable best efforts to take all such actions and do all such things as are necessary or desirable to enable and permit the holders of Class A Common Units to participate in such PubCo Offer to the same extent or on an economically equivalent basis as the holders of shares of Class A Common Stock without discrimination; *provided* that, without limiting the generality of this sentence (and without limiting the ability of any Member holding Class A Common Units to consummate an Exchange at any time pursuant to the terms of this Agreement), the Managing Member shall use its reasonable best efforts to ensure that such holders of Class A Common Units may participate in such PubCo Offer without being required to Exchange their Class A Common Units and cancel their shares of Paired Voting Stock, as the case may be, (or, if so required, to ensure that any such Exchange and cancelation shall be effective only upon, and shall be conditional upon, the closing of the transactions contemplated by the PubCo Offer). For the avoidance of doubt, in no event shall the holders of Class A Common Units be entitled to receive in such PubCo Offer aggregate consideration for each Class A Common Unit and share of Paired Voting Stock, taken together, that is greater than or less than the consideration payable in respect of each share of Class A Common Stock in connection with such PubCo Offer (it being understood that payments under or in respect of the Tax Receivable Agreement shall not be considered part of any such consideration).

(iii) The Company may not redeem, repurchase or otherwise acquire (x) any Class A Common Units from PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) unless substantially simultaneously PubCo or such Subsidiary redeems, repurchases or otherwise acquires pursuant

to a Board approved repurchase plan or program (or otherwise in connection with a transaction approved by the Board) an equal number of shares of Class A Common Stock or Class C Common Stock for the same price per security from holders thereof or (y) any other Equity Securities of the Company from PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) unless substantially simultaneously PubCo or such Subsidiary redeems, repurchases or otherwise acquires pursuant to a Board approved repurchase plan or program (or otherwise in connection with a transaction approved by the Board) for the same price per security an equal number of Equity Securities of PubCo (or such Subsidiary) of a corresponding class or series with substantially the same rights to dividends and distributions (including distributions upon liquidation) and other economic rights as those of such Equity Securities of PubCo or such Subsidiary.

(iv) Notwithstanding the foregoing clauses (i) through (iii), to the extent that any consideration payable by PubCo in connection with the redemption, repurchase or acquisition of any shares of Class A Common Stock, Class C Common Stock or other Equity Securities of PubCo or any of its Subsidiaries (other than the Company and its Subsidiaries) consists (in whole or in part) of shares of Class A Common Stock, Class C Common Stock or such other Equity Securities (including in connection with the cashless exercise of an option or warrant (or other convertible right or security)) other than under PubCo's employee benefit plans for which there is no corresponding Class A Common Units or other Equity Securities of the Company, then the redemption, repurchase or acquisition of the corresponding Class A Common Units or other Equity Securities of the Company shall be effectuated in an equivalent manner.

(d) Equity Subdivisions and Combinations.

(i) The Company shall not in any manner effect any subdivision (by any equity split, equity distribution, reclassification, recapitalization or otherwise) or combination (by reverse equity split, reclassification, recapitalization or otherwise) of the outstanding Class A Common Units unless accompanied by an identical subdivision or combination, as applicable, of the outstanding PubCo Class A Common Stock and Paired Voting Stock, Class C Common Stock or other related class or series of Equity Security of PubCo, with corresponding changes made with respect to any other exchangeable or convertible Equity Securities of the Company and PubCo.

(ii) Except in accordance with Section 12.3, PubCo shall not in any manner effect any subdivision (by any equity split, equity distribution, reclassification, recapitalization or otherwise) or combination (by reverse equity split, reclassification, recapitalization or otherwise) of the outstanding PubCo Class A Common Stock, Class C Common Stock or any other class or series of Equity Security of PubCo, unless accompanied by an identical subdivision or combination, as applicable, of the outstanding Class A Common Units or other related class or series of Equity Security of the Company, with corresponding changes made with respect to any applicable exchangeable or convertible Equity Securities of the Company and PubCo.

(e) General Authority. For the avoidance of doubt, but subject to Sections 3.1 and 3.2, the Company and PubCo (including in its capacity as the Managing Member of the Company) shall be permitted to undertake all actions, including an issuance, redemption, reclassification, distribution, division or recapitalization, with respect to the Class A Common Units, that are necessary, in the Managing Member's determination, to maintain at all times a one-to-one ratio between (i) the number of Class A Common Units owned by PubCo, directly or indirectly, and the number of outstanding shares of Class A Common Stock and Class C Common Stock, and (ii) the number of outstanding shares of applicable Paired Voting Stock held by any Person and the number of Class A Common Units held by such Person disregarding, for purposes of maintaining the one-to-one ratios in clauses (i) and (ii), (A) options, rights or securities of PubCo issued under any plan involving the issuance of any Equity Securities that are convertible into or exercisable or exchangeable for Class A Common Stock, (B) treasury stock, or (C) preferred stock or other debt or equity securities (including warrants, options or rights) issued by PubCo, including Class C common stock, that are convertible into or exercisable or exchangeable for Class A Common Stock (but in each case prior to such conversion or exchange).

3.3 Capital Accounts.

(a) A separate capital account (each, a "**Capital Account**") shall be established for each Member and shall be maintained in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv) and this Section 3.3 shall be interpreted and applied in a manner consistent with such regulations. In accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(f), the Company may adjust the Capital Accounts of its Members to reflect revaluations (including any unrealized income, gain or loss) of the Company's property (including intangible assets such as goodwill), whenever it issues additional interests in the Company (including any interests issued with a zero initial Capital Account), or whenever the adjustments would otherwise be permitted under such Treasury Regulations. The Company may adjust the Capital Accounts of its Members to reflect revaluations of the property of any Subsidiary of the Company that is treated as a partnership (or entity disregarded from a partnership) for U.S. federal income tax purposes. In the event that the Capital Accounts of the Members are so adjusted, (i) the Capital Accounts of the Members shall be adjusted in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(g) for allocations of depreciation, depletion, amortization and gain or loss, as computed for book purposes, with respect to such property and (ii) the Members' distributive shares of depreciation, depletion, amortization and gain or loss, as computed for tax purposes, with respect to such property shall be determined so as to take account of the variation between the adjusted tax basis and Book Value of such property in the same manner as under Section 704(c) of the Code. In the event that Code Section 704(c) applies to property of the Company, the Capital Accounts of the Members shall be adjusted in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(g) for allocations of depreciation, depletion, amortization, and gain and loss, as computed for book purposes with respect to such property. In connection with the transactions contemplated by this Agreement, the Capital Accounts of the Members shall be adjusted in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(f) and determined as of the date hereof and the Capital Account of each Member shall be reflected in the books and records of the Company.

3.4 Negative Capital Accounts. No Member shall be required to pay to any other Member or the Company any deficit or negative balance which may exist from time to time in such Member's Capital Account (including upon and after dissolution of the Company).

3.5 No Withdrawal. No Person shall be entitled to withdraw any part of such Person's Capital Contribution or Capital Account or to receive any Distribution from the Company, except as expressly provided herein.

3.6 Loans From Members. Loans by Members to the Company shall not be considered Capital Contributions. If any Member shall advance funds to the Company in excess of the amounts required hereunder to be contributed by such Member to the capital of the Company, the making of such advances shall not result in any increase in the amount of the Capital Account of such Member. The amount of any such advances shall be a debt of the Company to such Member and shall be payable or collectible in accordance with the terms and conditions upon which such advances are made.

ARTICLE IV

DISTRIBUTIONS AND ALLOCATIONS

4.1 Distributions.

(a) Distributions Generally. The Managing Member may, subject to (i) any restrictions contained in the financing agreements to which the Company or any of its Subsidiaries is a party, (ii) having available cash (after setting aside appropriate reserves), and (iii) any other restrictions set forth in this Agreement, make Distributions at any time and from time to time. Notwithstanding any other provision of this Agreement to the contrary, no Distribution, Tax Distribution or other payment in respect of Units shall be required to be made to any Member if, and to the extent that, such Distribution, Tax Distribution or other payment in respect of Units would not be permitted under the California Act or other applicable law.

(b) Operating and Liquidating Distributions. Subject to Section 4.1(c) with respect to Tax Distributions, all Distributions by the Company shall be made or allocated to holders of Participating Units pro rata based on the number of Participating Units held by each such holder.

(c) Tax Distributions.

(i) With respect to each Member, the Company shall calculate the excess of (x)(A) the Income Amount allocated or allocable to such Member for the Tax Estimation Period in question and for all preceding Tax Estimation Periods, if any, within the Taxable Year containing such Tax Estimation Period multiplied by (B) the Assumed Tax Rate over (y) the aggregate amount of all prior Tax Distributions in respect of such Taxable Year and any Distributions made to such Member pursuant to Section 4.1(b) with respect to the Tax Estimation Period in question and any previous Tax Estimation Period falling in the Taxable Year containing the applicable Tax Estimation Period referred to in (x)(A) (the amount so calculated pursuant to this sentence is herein referred to as a "**Tax Distribution**"); *provided*, however, that the Managing Member may make adjustments in its reasonable discretion to reflect transactions occurring during the Taxable Year. For purposes of this Agreement, the "**Income Amount**" for a Tax Estimation Period shall equal, with respect to any Member, the net taxable income of the Company allocated or allocable to such Member for such Tax Estimation Period (excluding any compensation paid to a Member outside of this Agreement). For purposes of computing the Income Amount, taxable income shall be determined (i) without regard to any adjustments under Sections 732(d), 734(b) and 743(b) of the Code, (ii) by including adjustments to taxable income in respect of Section 704(c) of the Code, and (iii) by reducing such taxable income by taxable losses of the Company allocated to such Member for taxable periods (or portions thereof) beginning after the date hereof to the extent that such losses are of a character (ordinary or capital) that would permit the losses to be deducted by such Member against the current taxable income of the Company allocable to the Member for such Tax Estimation Period, are otherwise available to be utilized, and have not previously been taken into account in determining such Member's Income Amount.

(ii) At least ten (10) Business Days before the individual or corporate quarterly estimate payment deadline for U.S. federal income taxes for calendar year filers (whichever is earlier), the Company shall distribute (to the extent available) to the Members pro rata based upon the number of Class A Common Units (including Unvested Class A Common Units) held by each such Member, an aggregate amount of cash sufficient to provide each such Member with a distribution at least equal to such Tax Distribution.

(iii) Notwithstanding anything to the contrary herein, no Tax Distributions will be required to be made with respect to items arising with respect to any Covered Transaction, although any unpaid Tax Distributions with respect to any Tax Estimation Period, or portion thereof, ending before a Covered Transaction shall continue to be required to be paid prior to any Distributions being made under Section 4.1(b).

(d) Each Distribution pursuant to Section 4.1(b) and each Distribution pursuant to Section 4.1(c) shall be made to the Persons shown on the Company's books and records as Members as of the date of such Distribution; *provided*, *however*, that any transferor and transferee of Units may mutually agree as to which of them should receive payment of any Distribution under Section 4.1(c); *provided*, *further*, that the Managing Member may in its reasonable discretion make a Tax Distribution under Section 4.1(c) to a former Member in respect of a Taxable Year (or the portion thereof) in which such former Member was a Member.

(e) Notwithstanding anything to the contrary in this Section 4.1, no distributions shall be made pursuant to Section 4.1 on account of a Participating Unit that has not vested in accordance with the vesting schedule applicable to such Unvested Class A Common Units (or any other Units subject to vesting) (other than to the extent such distributions are in respect of a Tax Distribution); provided that any distributions in respect of Unvested Class A Common Units (or any other Units subject to vesting) shall be payable at the same time as such Unvested Class A Common Units (or any other Units subject to vesting) become vested Class A Common Units, and if such Unvested Class A Common Units (or any other Units subject to vesting) are forfeited, the former holder of such Class A Common Units shall have no right to receive such distributions.

(f) For purposes of this Section 4.1, any non-cash Company assets distributed in kind to any Members shall be valued at their Fair Market Value in accordance with Article XIV.

4.2 Allocations of Net Profit and Net Loss. Except as otherwise provided in this Agreement, including Section 4.3, Net Profits and Net Losses (and, to the extent necessary, individual items of income, gain, loss, deduction or credit

of the Company) shall be allocated among the Capital Accounts of the Members in a manner such that, after such allocations have been made, the balance of each Member's Capital Account is, as nearly as possible, equal to (a) the amount that would be distributed to such Member if the Company were to sell all of its assets for the Book Value thereof, satisfy all of its liabilities in cash in accordance with their terms (limited with respect to each nonrecourse liability to the Book Value of the assets securing such liability), and distribute all remaining or resulting cash pursuant to Section 13.2 (assuming all Units are fully vested for this purpose), minus (b) the Member's share of Company Minimum Gain and Member Nonrecourse Debt Minimum Gain, computed immediately prior to the hypothetical sale of assets, and (without duplication) the amount any such Member is treated as obligated to contribute to the Company, computed immediately after the hypothetical sale of assets. Notwithstanding the foregoing, the Managing Member in its sole discretion shall make allocations for tax purposes as may be needed to ensure that allocations are in accordance with the interests of the Members within the meaning of the Code and Treasury Regulations.

4.3 Special Allocations. Notwithstanding any other provision in this Article IV:

(a) Minimum Gain Chargeback. If there is a net decrease in Company Minimum Gain or Member Nonrecourse Debt Minimum Gain (determined in accordance with the principles of Treasury Regulations Sections 1.704-2(d) and 1.704-2(i)) during any Company taxable year, the Members shall be specially allocated items of Company income and gain for such year (and, if necessary, subsequent years) in an amount equal to their respective shares of such net decrease during such year, determined pursuant to Treasury Regulations Sections 1.704-2(g) and 1.704-2(i)(5). The items to be so allocated shall be determined in accordance with Treasury Regulations Section 1.704-2(f). This Section 4.3(a) is intended to comply with the minimum gain chargeback requirements in such Treasury Regulations Sections and shall be interpreted consistently therewith; including that no chargeback shall be required to the extent of the exceptions provided in Treasury Regulations Sections 1.704-2(f) and 1.704-2(i)(4).

(b) Qualified Income Offset. If any Member unexpectedly receives any adjustments, allocations, or Distributions described in Treasury Regulations Section 1.704-1(b)(2)(ii)(d)(4), (5) or (6), items of Company income and gain shall be specially allocated to such Member in an amount and manner sufficient to eliminate the deficit balance in such Member's Adjusted Capital Account Balance created by such adjustments, allocations or Distributions as promptly as possible; *provided* that an allocation pursuant to this Section 4.3(b) shall be made only to the extent that a Member would have a deficit Adjusted Capital Account Balance in excess of such sum after all other allocations provided for in this Article IV have been tentatively made as if this Section 4.3(b) were not in this Agreement. This Section 4.3(b) is intended to comply with the "qualified income offset" requirement of the Code and shall be interpreted consistently therewith.

(c) Gross Income Allocation. If any Member has a deficit Capital Account at the end of any taxable year which is in excess of the sum of (i) the amount such Member is obligated to restore, if any, pursuant to any provision of this Agreement, and (ii) the amount such Member is deemed to be obligated to restore pursuant to the penultimate sentences of Treasury Regulations Section 1.704-2(g)(1) and 1.704-2(i)(5), each such Member shall be specially allocated items of Company income and gain in the amount of such excess as quickly as possible; *provided* that an allocation pursuant to this Section 4.3(c) shall be made only if and to the extent that a Member would have a deficit Capital Account in excess of such sum after all other allocations provided for in this Article IV have been tentatively made as if Section 4.3(b) and this Section 4.3(c) were not in this Agreement.

(d) Nonrecourse Deductions. Nonrecourse Deductions shall be allocated to the Members holding Class A Common Units pro rata based on the number of Participating Units held by each Member.

(e) Member Nonrecourse Deductions. Member Nonrecourse Deductions for any taxable period shall be allocated to the Member who bears the economic risk of loss with respect to the liability to which such Member Nonrecourse Deductions are attributable in accordance with Treasury Regulations Section 1.704-2(j).

(f) Ameliorative Allocations. Any special allocations of income or gain pursuant to Sections 4.3(a) or 4.3(c) hereof shall be taken into account in computing subsequent allocations pursuant to Section 4.2 and this Section 4.3(f), so that the net amount of any items so allocated and all other items allocated to each Member shall, to the extent possible, be equal to the net amount that would have been allocated to each Member if such allocations pursuant to Sections 4.3(a) or 4.3(c) had not occurred.

(g) Section 754 Adjustments. To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Code Sections 734(b) or 743(b) is required, pursuant to Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(2) or 1.704-1(b)(2)(iv)(m)(4), to be taken into account in determining Capital Accounts as a result of a distribution to any Member in complete or partial liquidation of such Member's Units in the Company, the amount of such adjustment to the Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis) and such item of gain or loss shall be allocated to the Members in accordance with Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(2) if such Section applies or to the Member to whom such distribution was made if Treasury Regulations Section 1.704-1(b)(2)(iv)(m)(4) applies.

(h) Forfeiture Allocation. In the event that Unvested Class A Common Units (or any other Units subject to vesting) of any Member are forfeited, then for the fiscal year of such forfeiture or other period (as determined by the Managing Member):

(i) items of income, gain, loss, and deduction shall be excluded from the calculation of Profits and Losses and shall be specially allocated to the Member whose Units have been forfeited so as to cause such Member's Capital Account to equal such Member's distribution entitlements under Section 4.1 after giving effect to the adjustment in the Member's ownership of Units resulting from the applicable forfeiture;

(ii) the Managing Member may elect to apply another allocation or Capital Account adjustment method to Units forfeiture as they deem appropriate in lieu of the method set forth in this Section 4.3(h).

4.4 Tax Allocations.

(a) Except as provided in Sections 4.4(b), (c) and (d), Net Profits and Net Losses (and, to the extent necessary, individual items of income, gains, losses, deductions and credits) of the Company will be allocated, for federal, state and local income tax purposes, among the holders of Units in accordance with the allocation of such income, gains, losses, deductions and credits among the holders of Units for book purposes.

(b) Items of Company taxable income, gain, loss and deduction with respect to any property contributed to the capital of the Company shall be allocated among the holders of Units in accordance with Code Section 704(c) so as to take account of any variation between the adjusted basis of such property to the Company and its Book Value using such method or methods determined by the Managing Member to be appropriate and in accordance with the applicable Treasury Regulations; *provided*, *however*, that notwithstanding anything to the contrary, the Company shall elect to use the "traditional method with curative allocations" within the meaning of Treasury Regulations Section 1.704-3(c) in respect of section 197 intangibles (as defined in Section 197(d) of the Code) that are subject to reverse Section 704(c) allocations as a result of a contribution of cash by PubCo at the time of the IPO, and in respect of revaluations of such property following the Initial Public Offering, with such curative allocations limited to gain from the sale of such section 197 intangibles as described in Treasury Regulations Section 1.704-3(c)(3)(iii)(B).

(c) If the Book Value of any Company asset is adjusted pursuant to Section 3.3, subsequent allocations of items of taxable income, gain, loss and deduction with respect to such asset shall take account of any variation between the adjusted basis of such asset for federal income tax purposes and its Book Value in the same manner as under Code Section 704(c).

(d) Allocations of tax credits, tax credit recapture, and any items related thereto shall be allocated to the holders of Units according to their interests in such items as determined by the Managing Member taking into account the principles of Treasury Regulation Section 1.704-1(b)(4)(ii).

(e) Allocations pursuant to this Section 4.4 are solely for purposes of federal, state and local taxes and shall not affect, or in any way be taken into account in computing, any holder's Capital Account or share of book income, gain, loss or deduction, Distributions or other Company items pursuant to any provision of this Agreement.

4.5 Other Allocation Rules.

(a) The provisions regarding the establishment and maintenance for each Member of a Capital Account as provided by Section 3.3 and the allocations set forth in Sections 4.2, 4.3 and 4.4 are intended to comply with the Treasury Regulations and to reflect the intended economic entitlement of the Members. If the Managing Member reasonably determines that the application of the provisions in Section 3.3, 4.2, 4.3 and 4.4 would result in non-compliance with the Treasury Regulations or would be inconsistent with the intended economic entitlement of the Members, the Managing Member is authorized to make any appropriate adjustments to such provisions to the extent permitted by applicable Law, including to allocate properly items of income, gain, loss, deduction and credit to those Members who bear the economic burden or benefit associated therewith, or to otherwise cause the Members to achieve the economic objectives underlying this Agreement. The Managing Member also shall (i) make any adjustments that it reasonably determines are necessary or appropriate to maintain equality between the Capital Accounts of the Members and the amount of Company capital reflected on the Company's balance sheet, as computed for book purposes, in accordance with Treasury Regulations Section 1.704-1(b)(iv)(g) and (ii) make any reasonable and appropriate modifications in the event unanticipated events would reasonably be expected to otherwise cause this Agreement not to comply with Treasury Regulations Section 1.704-1(b). No adjustment to the allocations shall be made under this Section 4.5(a) that would have a material adverse effect on the Continuing Members without the prior written consent of the Continuing Member Representative, which consent shall not be unreasonably withheld, conditioned or delayed.

(b) With regard to PubCo's acquisition of the Class A Common Units in conjunction with the IPO, Profits or Losses shall be allocated to the Members of the Company so as to take into account the varying interests of the Members in the Company using an "interim closing of the books" method in a manner that complies with the provisions of Section 706 of the Code and the Treasury Regulations thereunder. If during any Taxable Year there is any other change in any Member's Units in the Company, the Managing Member shall allocate the Profits or Losses to the Members of the Company so as to take into account the varying interests of the Members in the Company using any method that complies with the provisions of Section 706 of the Code and the Treasury Regulations thereunder.

(c) Solely for purposes of determining a Member's proportionate share of the "excess nonrecourse liabilities" of the Company, within the meaning of Treasury Regulations Section 1.752-3(a)(3), the Managing Member shall allocate such liabilities in such manner that complies with the Code and the Treasury Regulations thereunder and that the Managing Member reasonably determines is reasonable expected to minimize any gain of the Members to the greatest extent possible under Section 731 of the Code.

4.6 Withholding Taxes.

(a) The Company shall withhold taxes from Distributions to, and allocations among, the Members to the extent required by law. Except as otherwise provided in this Section 4.6, any amount so withheld by the Company with regard to a Member shall be treated for purposes of this Agreement as an amount actually distributed to such Member pursuant to Section 4.1(b) (a "**Withholding Payment**"). An amount shall be considered withheld by the Company if, and at the time, remitted to a Governmental Entity without regard to whether such remittance occurs at the same time as the Distribution or allocation to which it relates; *provided*, *however*, that an amount actually withheld from a specific Distribution or designated by the Managing Member as withheld from a specific allocation shall be treated as if distributed at the time such Distribution or allocation occurs.

(b) Each Member hereby agrees to indemnify the Company and the other Members for any liability they may incur for failure to properly withhold taxes in respect of such Member. Moreover, each Member hereby agrees that neither the Company nor any other Member shall be liable to such Member for any excess taxes withheld in respect of such Member's interest in the Company and that, in the event of overwithholding, a Member's sole recourse shall be to apply for a refund from the appropriate governmental authority.

(c) If it is anticipated that at the due date of the Company's withholding obligation the Member's share of cash Distributions or other amounts due is less than the amount of the Withholding Payment, the Member with respect to which the withholding obligation applies shall pay to the Company the amount of such shortfall within thirty (30) days after notice by the Company. If a Member fails to make the required payment when due hereunder, and the Company nevertheless pays the withholding, in addition to the Company's remedies for breach of this

Agreement, the amount paid shall be deemed a recourse loan from the Company to such Member bearing interest at an interest rate per annum equal to the Base Rate plus 3.0%, and the Company shall apply all Distributions or payments that would otherwise be made to such Member toward payment of the loan and interest, which payments or Distributions shall be applied first to interest and then to principal until the loan is repaid in full. In the event that the Distributions or proceeds to the Company or any Subsidiary of the Company are reduced on account of taxes withheld at the source or any taxes are otherwise required to be paid by the Company and such taxes are imposed on or with respect to one or more, but not all of the Members in the Company, or all of the Members in the Company at different tax rates, the amount of the reduction shall be borne by the relevant Members and treated as if it were paid by the Company as a Withholding Payment with respect to such Members pursuant to Section 4.6(a). Taxes imposed on the Company where the rate of tax varies depending on characteristics of the Members shall be treated as taxes imposed on or with respect to the Members for purposes of Section 4.6(a). In addition, if the Company is obligated to pay any taxes (including penalties, interest and any addition to tax) to any Governmental Entity that is specifically attributable to a Member or a former Member, including, without limitation, on account of Sections 864 or 1446 of the Code, then (x) such Member or former Member shall indemnify the Company in full for the entire amount paid or payable, (y) the Managing Member may offset future Distributions from such Member or former Member pursuant to Section 4.1 to which such Person is otherwise entitled under this Agreement against such Member or former Member's obligation to indemnify the Company under this Section 4.6(c) and (z) such amounts shall be treated as a Withholding Payment pursuant to Section 4.6(a) with respect to such Member or former Member.

(d) If the Company incurs an Imputed Underpayment Amount, the Partnership Representative shall determine in its discretion the portion of such Imputed Underpayment Amount attributable to each Member or former Member and such attributable amount shall be treated as a Withholding Payment pursuant to Section 4.6(a). The portion of any Imputed Underpayment Amount attributed to a former Member shall be treated as a Withholding Payment pursuant to Section 4.6(a) with respect to such former Member. The Partnership Representative shall use commercially reasonable efforts to secure any reduction in any Imputed Underpayment Amount that is available by reason of the status of any Member (or its beneficial owners), including by means of any procedures provided pursuant to Code Section 6225(c)(3), and to allocate the benefit of any such reduction to such Member. Each Member agrees to indemnify and hold harmless the Company, Managing Member and the Partnership Representative from and against any and all liability with respect to any Imputed Underpayment Amounts required on behalf of, or with respect to, such Member or any former Member whose former interest in the Company is held by such Member. For purposes hereof, "**Imputed Underpayment Amount**" shall mean any "imputed underpayment" within the meaning of Section 6225 of the Code (or any corresponding or similar provision of state, local or foreign law) paid (or payable) by the Company as a result of an adjustment with respect to any Company item, including any interest or penalties with respect to any such adjustment. Imputed Underpayment Amounts shall also include any imputed underpayment amounts within the meaning of Code Section 6225 (or any corresponding or similar provision of state, local or foreign law) which are paid (or payable) by any entity treated as a partnership for U.S. federal income tax purposes in which the Company holds (or has held) a direct or indirect interest (other than through entities treated as corporations for U.S. federal income tax purposes) to the extent that the Company bears the economic burden of such amounts, whether by law or agreement.

(e) A Member's obligations under this Section 4.6 shall survive the dissolution and winding up of the Company and any transfer, assignment or liquidation of such Member's interest in the Company.

4.7 Allocations Upon Final Liquidation. With respect to the fiscal year in which the final liquidation of the Company occurs in accordance with Section 13.2 of the Agreement, and notwithstanding any other provision of Sections 4.2, 4.3 or 4.4 hereof, items of Company income, gain, loss and deduction shall be specially allocated to the Members in such amounts and priorities as are necessary so that the positive Capital Accounts of the Members shall, as closely as possible, equal the amounts that will be distributed to the Members pursuant to Section 13.2.

ARTICLE V

MANAGEMENT

5.1 Designation and Authority of Managing Member. The Managing Member shall be designated by the holders of Class B Voting Units. Except for situations in which the approval of one or more of the Members is specifically required by the express terms of this Agreement, and subject to the provisions of this Article V, (i) all management powers over the business and affairs of the Company shall be exclusively vested in the Managing Member, (ii) the Managing Member shall conduct, direct and exercise full control over all activities of the Company, and (iii) the Managing Member shall have the sole power to bind or take any action on behalf of the Company, or to exercise any rights and powers (including, without limitation, the rights and powers to take certain actions, give or withhold certain consents or approvals, or make certain determinations, opinions, judgments or other decisions) granted to the Company under this Agreement or any other agreement, instrument or other document to which the Company is a party. Without limiting the generality of the foregoing, but subject to any situations in which the approval of the Members is specifically required by this Agreement, (x) the Managing Member shall have discretion in determining whether to issue Equity Securities, the number of Equity Securities to be issued at any particular time, the purchase price for any Equity Securities issued, and all other terms and conditions governing the issuance of Equity Securities and (y) the Managing Member may enter into, approve, and consummate any Liquidity Event or other extraordinary or business combination or divestiture transaction, and execute and deliver on behalf of the Company or the Members any agreement, document and instrument in connection therewith (including amendments, if any, to this Agreement or adoptions of new constituent documents) without the approval or consent of any Member. The Managing Member shall operate the Company and its Subsidiaries in accordance in all material respects with an annual budget, business plan and financial forecasts for the Company and its Subsidiaries for each fiscal year. The Managing Member shall be the "manager" of the Company for the purposes of the California Act. The Managing Member is hereby authorized to execute, deliver and file the articles of organization of the Company and all other certificates (and any amendments and/or restatements hereof) required or permitted by the California Act to be filed in the Office of the Secretary of State of the State of California. The Managing Member and Members hereby approve and ratify the filing of the following document with the Secretary of State of the State of California: Amendment to the Articles of Organization of the Company by an authorized person, as may be designated by the Managing Member from time to time. The Managing Member is hereby authorized to execute, deliver and file any other certificates (and any amendments and/or restatements thereof) necessary for the Company to qualify to do business in a jurisdiction in which the Company may wish to conduct business. Notwithstanding any other provision of this Agreement to the contrary, without the consent of any Member or other Person being required, the Company is hereby authorized to execute, deliver and perform, and the Managing Member or any officer on behalf of the Company, is hereby authorized to execute and deliver (a) the Exchange Agreements, (b) the Tax Receivable Agreement; (c) any other document, certificate or contract relating to or contemplated by the Recapitalization; and (d) any amendment and any agreement, document or other instrument contemplated thereby or related thereto. The Managing Member or any officer is hereby authorized to enter into the documents described in the preceding sentence on behalf of the Company, but such authorization shall not be deemed a restriction on the power of the Managing Member or any officer to enter into other documents on behalf of the Company.

5.2 Actions of the Managing Member. Unless otherwise provided in this Agreement, any decision, action, approval or consent required or permitted to be taken by the Managing Member may be taken by the Managing Member through any Person or Persons to whom authority and duties have been delegated pursuant to Section 5.4(a). The Managing Member shall not cease to be a Managing Member of the Company as a result of the delegation of any duties hereunder. No officer or agent of the Company, in its capacity as such, shall be considered a Managing Member of the Company by agreement, as a result of the performance of its duties hereunder or otherwise.

5.3 Compensation; Expenses.

(a) The Managing Member shall not be entitled to any compensation for services rendered to the Company in its capacity as Managing Member.

(b) The Company shall pay, or cause to be paid, all costs, fees, operating expenses and other expenses of the Company (including the costs, fees and expenses of attorneys, accountants or other professionals) incurred in pursuing and conducting, or otherwise related to, the activities of the Company. The Company shall also, in the sole discretion of the Managing Member, bear and/or reimburse PubCo or the Managing Member for (i) any costs, fees or expenses incurred by the Managing Member in connection with serving as the Managing Member, (ii) operating, administrative and other similar costs incurred by the Managing Member, to the extent the proceeds are used or will be used by the Managing Member to pay expenses described in this clause (ii), and payments pursuant to

any legal, tax, accounting and other professional fees and expenses (but, for the avoidance of doubt, excluding any tax liabilities of the Managing Member), (iii) any judgments, settlements, penalties, fines or other costs and expenses in respect of any claims against, or any litigation or proceedings involving, the Managing Member, (iv) fees and expenses (other than any underwriters' discounts and commissions that are economically recovered by the Managing Member as a result of acquiring Company Units at a discount) related to any securities offering, investment or acquisition transaction (whether or not successful) authorized by PubCo, as the managing member of the Managing Member, (v) other fees and expenses in connection with the maintenance of the existence of the Managing Member, and (vi) all other expenses allocable to the Company or otherwise incurred by PubCo or the Managing Member in connection with operating the Company's business (including expenses allocated to PubCo or the Managing Member by their Affiliates and expenses incurred by PubCo in its capacity as the Managing Member). To the extent that the Managing Member determines in its sole discretion that such expenses are related to the business and affairs of PubCo or the Managing Member that are conducted through the Company and/or its Subsidiaries (including expenses that relate to the business and affairs of the Company and/or its Subsidiaries and that also relate to other activities of PubCo or the Managing Member), the Managing Member may cause the Company to pay or bear all expenses of PubCo or the Managing Member, including, without limitation, compensation and meeting costs of any board of directors or similar body of PubCo or the Managing Member, any salary, bonus, incentive compensation and other amounts paid to any Person including Affiliates of PubCo or the Managing Member to perform services for the Company, litigation costs and damages arising from litigation, accounting and legal costs and franchise taxes, except to the extent such franchise taxes are based on or measured with respect to net income or profits; *provided* that the Company shall not pay or bear any income tax obligations of PubCo or the Managing Member or any obligations of PubCo or the Managing Member under the Tax Receivable Agreement. To the extent practicable, expenses incurred by PubCo or the Managing Member on behalf of or for the benefit of the Company shall be billed directly to and paid by the Company and, if and to the extent any reimbursements to PubCo or the Managing Member or any of their Affiliates by the Company pursuant to this Section 5.3(b) constitute gross income to such Person (as opposed to the repayment of advances made by such Person on behalf of the Company), such amounts shall be treated as "guaranteed payments" within the meaning of Section 707(c) of the Code and shall not be treated as distributions for purposes of computing the Members' Capital Account. Reimbursements pursuant to this Section 5.3(b) shall be in addition to any reimbursement to PubCo or the Managing Member as a result of indemnification pursuant to Section 6.4.

5.4 Delegation of Authority.

(a) The Managing Member may, from time to time, delegate to one or more Persons, including any officer or director of the Company or PubCo (or to PubCo's Compensation Committee or its designees), or to any other Person, such authority and duties as the Managing Member may deem advisable; *provided* that any such Person shall exercise such authority subject to the same duties and obligations to which the Managing Member would have otherwise been subject pursuant to the terms of this Agreement.

(b) The Managing Member may assign titles (including, without limitation, executive chairman, non-executive chairman, chief executive officer, president, vice president, secretary, assistant secretary, treasurer or assistant treasurer) and delegate certain authority and duties to such Persons. Any number of titles may be held by the same officer of the Company or other individual. The salaries or other compensation, if any, of the officers and agents of the Company shall be fixed from time to time by the Managing Member. Any delegation pursuant to this Section 5.4 may be revoked at any time by the Managing Member.

5.5 Limitation of Liability.

(a) Except as otherwise provided herein, in an agreement entered into by such Person and the Company or by applicable law, none of (i) the Managing Member, (ii) any manager, officer, director, principal, member, employee, agent or Affiliate of the Managing Member or (iii) affiliated entities of the Managing Member's principal executives or directors shall be liable to the Company or to any Member for any act or omission performed or omitted by the Managing Member in its capacity as the Managing Member pursuant to authority granted to such Person by this Agreement; *provided* that, except as otherwise provided herein, such limitation of liability shall not apply to the extent the act or omission was attributable to such Person's gross negligence, willful misconduct or knowing violation of law, for any present or future breaches of any representations, warranties or covenants by such Person or its Affiliates contained herein with respect to any rights of the Company under any other agreements between the Managing Member and the Company. The Managing Member may exercise any of the powers granted to it by this

Agreement and perform any of the duties imposed upon it hereunder either directly or by or through its agents, and none of the Managing Member or any manager, officer, director, principal, member, employee, agent or Affiliate of the Managing Member shall be responsible for any misconduct or negligence on the part of any such agent appointed by the Managing Member (so long as such agent was selected in good faith and with reasonable care). The Managing Member shall be entitled to rely upon the advice of legal counsel, independent public accountants and other experts, including financial advisors, and any act of or failure to act by the Managing Member in good faith reliance on such advice shall in no event subject the Managing Member to liability to the Company or any Member.

(b) Except as provided in this Agreement or in the California Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company and no Managing Member shall be obligated personally for any such debts, obligations or liabilities solely by reason of acting as the Managing Member of the Company. The Managing Member shall not be personally liable for the Company's obligations, liabilities and Losses. Notwithstanding anything contained herein to the contrary, the failure of the Company to observe any formalities or requirements relating to the exercise of its powers or management of its business and affairs under this Agreement or the California Act shall not be grounds for imposing personal liability on the Managing Member for liabilities of the Company.

ARTICLE VI

RIGHTS AND OBLIGATIONS OF MEMBERS

6.1 Limitation of Liability.

(a) Except as provided in this Agreement or in the California Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company and no Member shall be obligated personally for any such debts, obligations or liabilities solely by reason of being a member of the Company. Except as otherwise provided in this Agreement or the California Act, a Member's liability (in its capacity as such) for Company obligations, liabilities and Losses shall be limited to the Company's assets; *provided* that a Member shall be required to return to the Company any Distribution made to it after the execution of this Agreement in clear and manifest accounting or similar error. The immediately preceding sentence shall constitute a compromise to which all Members have consented within the meaning of the California Act.

(b) This Agreement is not intended to, and does not, create or impose any duty (including any fiduciary duty) on any of the Members (including without limitation, the Managing Member) hereto or on their respective Affiliates. Further, notwithstanding any other provision of this Agreement or any duty otherwise existing at law or in equity, the parties hereto agree that no Member or Managing Member shall, to the fullest extent permitted by law, have duties (including fiduciary duties) to any other Member or to the Company, and in doing so, recognize, acknowledge and agree that their duties and obligations to one another and to the Company are only as expressly set forth in this Agreement; *provided*, *however*, that each Member and the Managing Member shall have the duty to act in accordance with the implied contractual covenant of good faith and fair dealing.

(c) To the extent that, at law or in equity, any Member (including without limitation, the Managing Member) has duties (including fiduciary duties) and liabilities relating thereto to the Company, to another Member or to another Person who is a party to or is otherwise bound by this Agreement, the Members (including without limitation, the Managing Member) acting under this Agreement will not be liable to the Company, to any such other Member or to any such other Person who is a party to or is otherwise bound by this Agreement, for their good faith reliance on the provisions of this Agreement. The provisions of this Agreement, to the extent that they restrict or eliminate the duties and liabilities relating thereto of any Member (including without limitation, the Managing Member) otherwise existing at law or in equity, are agreed by the Members to replace to that extent such other duties and liabilities of the Members relating thereto (including without limitation, the Managing Member).

6.2 Lack of Authority. No Member (other than the Managing Member) in its capacity as such (other than in its capacity as a Person delegated authority pursuant to Section 5.4) has the authority or power to act for or on behalf of the Company, to do any act that would be binding on the Company or to make any expenditures on behalf of the

Company. The Members hereby consent to the exercise by the Managing Member of the powers conferred on it by law and this Agreement.

6.3 No Right of Partition. No Member shall have the right to seek or obtain partition by court decree or operation of law of any Company property, or the right to own or use particular or individual assets of the Company.

6.4 Indemnification.

(a) Subject to Section 4.6, the Company hereby agrees to indemnify and hold harmless any Person (each an "**Indemnified Person**") to the fullest extent permitted under the California Act (after waiving all California Act restrictions on indemnification other than those which cannot be eliminated), as the same now exists or may hereafter be amended, substituted or replaced (but, in the case of any such amendment, substitution or replacement only to the extent that such amendment, substitution or replacement permits the Company to provide broader indemnification rights than the Company is providing immediately prior to such amendment, substitution or replacement), against all expenses, liabilities and losses (including attorneys' fees, judgments, fines, excise taxes or penalties, as reasonably required) reasonably incurred or suffered by such Person (or one or more of such Person's Affiliates) by reason of the fact that such Person is or was a Member (or Affiliate of a Member) or is or was serving as the Managing Member, any additional or substitute Managing Member, a Manager or a committee member pursuant to the Prior Agreement, officer, employee or other agent of the Company or is or was serving at the request of the Company as a manager, officer, director, principal, member, employee or agent of another corporation, partnership, joint venture, limited liability company, trust or other enterprise (including any manager, officer, director, principal, member, employee or agent of the Managing Member or any additional or substitute Managing Member); *provided* that (unless the Managing Member otherwise consents) no Indemnified Person shall be indemnified for any expenses, liabilities and losses suffered that are attributable to such Indemnified Person's or its Affiliates' gross negligence, willful misconduct or knowing violation of law. Expenses, including reasonable attorneys' fees, incurred by any such Indemnified Person in defending a proceeding related to any such indemnifiable matter shall be paid by the Company in advance of the final disposition of such proceeding, including any appeal therefrom, upon receipt of an undertaking by or on behalf of such Indemnified Person to repay such amounts if it shall ultimately be determined that such Indemnified Person is not entitled to be indemnified by the Company.

(b) The right to indemnification and the advancement of expenses conferred in this Section 6.4 shall not be exclusive of any other right which any Person may have or hereafter acquire under any statute, agreement, by-law, determination of the Managing Member or otherwise.

(c) The Company will maintain directors' and officers' liability insurance, at its expense, for the benefit of the Managing Member, the officers of the Company and any other Persons to whom the Managing Member has delegated its authority pursuant to Section 5.4.

(d) Notwithstanding anything contained herein to the contrary (including in this Section 6.4), any indemnity by the Company relating to the matters covered in this Section 6.4 shall be provided out of and to the extent of Company assets only and no Member (unless such Member otherwise agrees in writing or is found in a final decision by a court of competent jurisdiction to have personal liability on account thereof) shall have personal liability on account thereof or shall be required to make additional capital contributions or otherwise provide funding to help satisfy such indemnity of the Company.

(e) The Company hereby acknowledges that certain of its Members (the "**Fund Indemnitees**") may have rights to indemnification, advancement of expenses and/or insurance in connection with their involvement with the Company provided by other Persons (collectively, the "**Fund Indemnitors**"). The Company hereby agrees (i) that it is the indemnitor of first resort (*i.e.*, its obligations to the Fund Indemnitee are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by the Fund Indemnitees are secondary), and (ii) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof to the fullest extent permitted by law. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of the Fund Indemnitees with respect to any claim for which the Fund Indemnitees have sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall

have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of the Fund Indemnitees against the Company.

(f) If this Section 6.4 or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify and hold harmless each Indemnified Person pursuant to this Section 6.4 to the fullest extent permitted by any applicable portion of this Section 6.4 that shall not have been invalidated and to the fullest extent permitted by applicable law.

ARTICLE VII

BOOKS, RECORDS, ACCOUNTING AND REPORTS

7.1 Records and Accounting. The Company shall keep, or cause to be kept, appropriate books and records with respect to the Company's business, including all books and records necessary to provide any information, lists and copies of documents required to be provided pursuant to Section 7.3 or pursuant to applicable laws. All matters concerning (i) the determination of the relative amount of allocations and distributions among the Members pursuant to Article III and Article IV and (ii) accounting procedures and determinations, and other determinations not specifically and expressly provided for by the terms of this Agreement, shall be determined by the Managing Member, whose determination shall be final and conclusive as to all of the Members absent manifest clerical error.

7.2 Fiscal Year. The Fiscal Year of the Company shall be such annual accounting period as is established by the Managing Member from time to time.

7.3 Reports. The Company shall use commercially reasonable efforts to deliver or cause to be delivered, as soon as practicable following the completion of each Taxable Year, but in all events no later than ninety (90) days (except that in the case of Schedule K-1, no later than ninety (90) days for an estimate of the information to be included in Schedule K-1 and no later than one hundred and twenty (120) days for Schedule K-1) after the end of each Taxable Year, to each Person who was a holder of Units at any time during such Taxable Year all information from the Company necessary for the preparation of such Person's United States federal and state income tax returns. Except as set forth in the immediately preceding sentence or any separate written agreement between the Company and any Member, pursuant to Section 17704.10 of the California Act, no Member shall have the right to any other information from the Company, except as may be required by any non-waivable provision of law.

7.4 Transmission of Communications. Each Person that owns or controls Units on behalf of, or for the benefit of, another Person or Persons shall be responsible for conveying any report, notice or other communication received from the Company to such other Person or Persons.

7.5 Confidentiality.

(a) The Managing Member may keep confidential from the Members, for such period of time as the Managing Member determines in its sole discretion, (i) any information that the Managing Member reasonably believes to be in the nature of trade secrets or (ii) other information the disclosure of which the Managing Member believes is not in the best interests of the Company, could damage the Company or its business or that the Company is required by law or by agreement with any third party to keep confidential, including without limitation, information as to the Units held by any other Member. With respect to any schedules, annexes or exhibits to this Agreement, to the fullest extent permitted by law, each Member (other than the Managing Member) shall only be entitled to receive and review any such schedules, annexes and exhibits relating to such Member and shall not be entitled to receive or review any schedules, annexes or exhibits relating to any other Member (other than the Managing Member).

(b) Each Member agrees, for so long as such Member owns any Units and for a period of two (2) years following the date upon which such Member ceases to own any Units, to keep confidential, any non-public information provided to such Member by the Company; *provided*, *however*, that nothing herein will limit the disclosure of any information (i) to the extent required by law, statute, rule, regulation, judicial process, subpoena or court order or required by any governmental agency or other regulatory authority; (ii) that is in the public domain or becomes generally available to the public, in each case, other than as a result of the disclosure by the parties in violation

of this Agreement; or (iii) to a Member's Permitted Transferees, advisors, representatives and Affiliates; *provided* that such advisors, representatives and Affiliates shall have been advised of this agreement and shall have expressly agreed to be bound by the confidentiality provisions hereof, or shall otherwise be bound by comparable obligations of confidentiality, and the applicable Member shall be responsible for any breach of or failure to comply with this agreement by any of its Affiliates and such Member agrees, at its sole expense, to take reasonable measures (including but not limited to court proceedings) to restrain its advisors, representatives and Affiliates from prohibited or unauthorized disclosure or use of any confidential information.

ARTICLE VIII

TAX MATTERS

8.1 Preparation of Tax Returns. The Company shall arrange for the preparation and timely filing of all tax returns required to be filed by the Company. The Managing Member shall determine the accounting methods and conventions under the tax laws of the United States, the several states and other relevant jurisdictions as to the treatment of items of income, gain, deduction, loss and credit or any other method or procedure related to the preparation of such tax returns. Each Member will, upon request, supply to the Company all reasonably accessible, pertinent information in its possession relating to the operations of the Company necessary to enable the Company's tax returns to be prepared and filed. Each Member agrees in respect of any year in which such Member had an investment in the Company that, unless otherwise agreed by the Managing Member or as required by law, such Member shall not: (i) treat, on its individual tax returns, any item of income, gain, loss, deduction or credit relating to such investment in a manner inconsistent with the treatment of such item by the Company, as reflected on the Schedule K-1 or other information statement furnished by the Company to such Member; or (ii) file any claim for refund relating to any such item based on, or which would result in, any such inconsistent treatment.

8.2 Tax Elections. The Taxable Year of the Company shall be the calendar year unless otherwise required by the Code or applicable tax laws. The Managing Member shall cause the Company to have in effect (and to cause each direct or indirect subsidiary that is treated as a partnership for U.S. federal income tax purposes to have in effect) an election pursuant to Section 754 of the Code, to adjust the tax basis of Company properties, for the taxable year that includes the date of the initial public offering of shares of Class A Common Stock and for each taxable year in which an Exchange occurs. The Managing Member shall determine whether to make or revoke any other available election or decision relating to tax matters, including controversy in Section 8.3 pursuant to the Code. Each Member will upon request supply any information necessary to give proper effect to any such election.

8.3 Tax Controversies.

(a) With respect to tax periods ending after December 31, 2017, the Managing Member (or its permitted designee) is hereby designated the "partnership representative" of the Company for purposes of, and in accordance with, Section 6223 of the Code (and any analogous provision of state or local tax law) (the "**Partnership Representative**"). With respect to tax periods ending on or prior to December 31, 2017, the Managing Member (or its permitted designee) shall act as the "tax matters partner" within the meaning of Section 6231(a)(7) of the Code (and any analogous provision of state or local tax law) as in effect during such tax period (the "**Tax Matters Member**"). For each tax period in which the Partnership Representative is an entity, the Company shall appoint an individual identified by the Partnership Representative for such tax period to act on its behalf (the "**Designated Individual**").

(b) The Partnership Representative, the Tax Matters Member, or the Designated Individual, as applicable, is authorized and required to represent the Company (at the Company's expense) in connection with all tax audits, litigations, contests, examinations, controversies and other similar proceedings of the Company's affairs by tax authorities, including resulting administrative and judicial proceedings, and to expend Company funds for professional services reasonably incurred in connection therewith. Each holder of Units agrees to cooperate with the Company and to do or refrain from doing any or all things reasonably requested by the Company with respect to the conduct of such proceedings. Nothing herein shall be construed to restrict the Partnership Representative, the Tax Matters Member, or the Designated Individual from engaging lawyers, accountants, tax advisers, or other professional advisers or experts to assist the Partnership Representative, the Tax Matters Member or the Designated Individual in discharging its duties hereunder. None of the Partnership Representative, the Tax Matters Member or Designated

Individual shall be liable to the Company, any Member or any Affiliate thereof for any costs or losses to any Persons, any diminution in value or any liability whatsoever arising as a result of the performance of its duties pursuant to this Section 8.3 absent (i) willful breach of any provision of this Section 8.3 or (ii) bad faith, fraud, gross negligence or willful misconduct on the part of the Partnership Representative, the Tax Matters Member or Designated Individual, as applicable.

(c) The Partnership Representative, Tax Matters Member, or Designated Individual, as applicable, shall keep the Managing Member fully informed of the progress of any examinations, audits or other proceedings, it being agreed that no holder of Units (other than the Managing Member (or its permitted designee), in its capacity as Partnership Representative, Tax Matters Member or Designated Individual) shall have any right to participate in any such examinations, audits or other proceedings. Each Member hereby agrees to (i) take such actions as may be required to effect the designation of the Managing Member (or its designee) as the Partnership Representative, Tax Matters Member, or Designated Individual, (ii) to cooperate to provide any information or take such other actions as may be reasonably requested by the Partnership Representative in order to determine whether any Imputed Underpayment Amount may be modified pursuant to Section 6225(c) of the Code, and (iii) in the event the Company makes an election under Section 6226 of the Code (and any analogous provision of state or local tax law), to take such actions as may be necessary or desirable to allow the Company to comply with the requirements of such election so that any "partnership adjustments" (as defined in Section 6241(2) of the Code) are taken into account by the Members and former Members rather than the Company. Notwithstanding the foregoing, the Partnership Representative, the Tax Matters Member, and the Designated Individual shall be subject to the control of the Managing Member pursuant to Section 8.2 and shall not settle or otherwise compromise any issue in any such examination, audit or other proceeding without first obtaining approval of the Managing Member.

ARTICLE IX

RESTRICTIONS ON TRANSFER OF UNITS

9.1 Transfers of Units.

(a) Except as otherwise agreed to in writing between the Managing Member and the applicable Member and reflected in the books and records of the Company or as otherwise provided in this Article IX, no holder of Units may sell, transfer, assign, pledge, encumber, distribute, contribute or otherwise dispose of (whether directly or indirectly (including, for the avoidance of doubt, by Transfer or issuance of any Capital Stock of any Member that is not a natural person), whether with or without consideration and whether voluntarily or involuntarily or by operation of law) any interest (legal or beneficial) in any Units (a "**Transfer**"), except Exchanges pursuant to and in accordance with Article XII or Transfers pursuant to and in accordance with Sections 9.1(b).

(b) The restrictions contained in Section 9.1(a) shall not apply, subject to Section 9.5, to any Transfer of Units (i) by any Member to its Affiliates, (ii) by any Member to a trust (whether revocable or irrevocable) solely for the benefit of such Person and such Person's Family Group (or a re-Transfer of such Units by such trust back to such Member upon the revocation of any such trust) or pursuant to the applicable laws of descent or distribution among such Person's Family Group, (iii) by any Member to such Person's Family Group or (iv) from a Continuing Member to another Continuing Member or (v) pursuant to the Exchange Agreements (each of clauses (i), (ii), (iii), (iv) and (v), an "**Exempt Transfer**"); *provided* that the restrictions contained in this Agreement will continue to apply to the Units after any Transfer pursuant to clause (i) or (ii) above and each transferee of Units shall agree in writing, prior to and as a condition precedent to the effectiveness of such Transfer, to be bound by the provisions of this Agreement, without modification or condition, subject only to the consummation of such Transfer. Upon the Transfer of Units pursuant to clause (i) or (ii) of the first sentence of this Section 9.1(b), the transferor will deliver written notice to the Company, which notice will disclose in reasonable detail the identity of such transferee(s) and shall include original counterparts of this Agreement in a form acceptable to the Company. Notwithstanding the foregoing, no party hereto shall avoid the provisions of this Agreement by making one or more Transfers to one or more transferees permitted under clause (i) of the first sentence of this Section 9.1(b) and then disposing of all or any portion of such party's interest in such transferee if such disposition would result in such transferee ceasing to be a Permitted Transferee.

(c) Notwithstanding anything in this Agreement to the contrary, as a condition to any Transfer:

(i) if the transferor of Units who proposes to transfer such Units (or if such transferor is a disregarded entity for U.S. federal income tax purposes, the first direct or indirect beneficial owner of such transferor that is not a disregarded entity (the "**Transferor's Owner**")) is a "United States person" as defined in Section 7701(a)(30) of the Code, then such transferor (or Transferor's Owner, if applicable) shall complete and provide to both of the transferee and the Company, a valid Non-Foreign Person Certificate, including the transferor's (or Transferor's Owner's, if applicable) United States taxpayer identification number, or

(ii) if the transferor of Units who proposes to transfer such Units (or if such transferor is a disregarded entity for U.S. federal income tax purposes, the Transferor's Owner) is not a "United States person" as defined in Section 7701(a)(30) of the Code, then such transferor and transferee shall jointly provide to the Company written proof reasonably satisfactory to the Managing Member that any applicable withholding tax that may be imposed on such transfer (including pursuant to Sections 864 and 1446 of the Code) and any related tax returns or forms that are required to be filed, have been, or will be, timely paid and filed, as applicable.

(d) Except as otherwise expressly provided herein, it shall be a condition precedent to any Transfer of any Class A Common Unit held by a Member other than PubCo that, concurrently with such Transfer such transferring Member shall also Transfer to the transferee the shares of Paired Voting Stock corresponding to such Transferred Class A Common Units.

9.2 Restricted Units Legend.

(a) The Units have not been registered under the Securities Act and, therefore, in addition to the other restrictions on Transfer contained in this Agreement, cannot be sold unless subsequently registered under the Securities Act or an exemption from such registration is then available. To the extent such Units have been certificated, each certificate evidencing Units and each certificate issued in exchange for or upon the Transfer of any Units (if such securities remain Units as defined herein after such Transfer) shall be stamped or otherwise imprinted with a legend in substantially the following form:

"THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES OR BLUE SKY LAWS AND MAY NOT BE OFFERED, SOLD, TRANSFERRED, HYPOTHECATED OR OTHERWISE ASSIGNED EXCEPT (1) PURSUANT TO A REGISTRATION STATEMENT WITH RESPECT TO SUCH SECURITIES WHICH IS EFFECTIVE UNDER THE ACT OR (2) PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE ACT RELATING TO THE DISPOSITION OF SECURITIES AND (3) IN ACCORDANCE WITH APPLICABLE STATE SECURITIES AND BLUE SKY LAWS.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER SPECIFIED IN THE AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT OF THE ISSUER OF SUCH SECURITIES, AS SUCH AGREEMENT MAY BE AMENDED, MODIFIED OR RESTATED FROM TIME TO TIME, AND THE ISSUER RESERVES THE RIGHT TO REFUSE THE TRANSFER OF SUCH SECURITIES UNTIL SUCH TRANSFER RESTRICTIONS HAVE BEEN FULFILLED. A COPY OF SUCH AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT SHALL BE FURNISHED BY THE ISSUER TO THE HOLDER HEREOF UPON WRITTEN REQUEST AND WITHOUT CHARGE."

The Company will imprint such legend on certificates (if any) evidencing Units. The legend set forth above will be removed from the certificates (if any) evidencing any units which cease to be Units in accordance with the definition thereof.

(b) In connection with the Transfer of any Units, the holder thereof shall deliver written notice to the Company describing in reasonable detail the Transfer or proposed Transfer, which shall, if so requested by the Managing Member, be accompanied by (i) an opinion of counsel which (to the Company's reasonable satisfaction) is

knowledgeable in securities law matters to the effect that such Transfer of Units may be effected without registration of such Units under the Securities Act or (ii) such other evidence reasonably satisfactory to the Managing Member to the effect that such Transfer of Units may be effected without registration of such Units under the Securities Act. In addition, if the holder of the Units delivers to the Company an opinion of such counsel that no subsequent Transfer of such Units shall require registration under the Securities Act, the Company shall promptly upon such contemplated Transfer deliver new certificates for such securities (if then certificated) which do not bear the Securities Act legend set forth in Section 9.2(a). If the Company is not required to deliver new certificates for such Units not bearing such legend, the holder thereof shall not effect any Transfer of the same until the prospective transferee has confirmed to the Company in writing its agreement to be bound by the conditions contained in this Agreement.

(c) Upon the request of any Member, the Company will promptly supply to such Member or its prospective transferees all information regarding the Company required to be delivered in connection with a Transfer pursuant to Rule 144 of the Securities and Exchange Commission.

(d) If any Units become eligible for sale pursuant to Rule 144 of the Securities and Exchange Commission or no longer constitute "restricted securities" (as defined under Rule 144(a) of the Securities and Exchange Commission), the Company shall, upon the request of the holder of such Units, remove the Securities Act legend set forth in Section 9.2(a) above from the certificates (if any) for such securities.

9.3 Assignee's Rights.

(a) Subject to Section 9.5(b), a Transfer of Units in a manner in accordance with this Agreement shall be effective as of the date of assignment and compliance with the conditions to such Transfer and such Transfer shall be shown on the books and records of the Company. Income, loss and other Company items shall be allocated between the transferor and the Assignee according to Code Section 706 as determined by the Managing Member. Distributions made before the effective date of such Transfer shall be paid to the transferor, and Distributions made after such date shall be paid to the Assignee.

(b) Unless and until an Assignee becomes a Member pursuant to Article X, the Assignee shall not be entitled to any of the rights granted to a Member hereunder or under applicable law, other than the rights granted specifically to Assignees pursuant to this Agreement; *provided* that without relieving the transferring Member from any such limitations or obligations as more fully described in Section 9.4, such Assignee shall be bound by any limitations and obligations of a Member contained herein that a Member would be bound on account of such Units (including the obligation to make Capital Contributions on account of such Units).

9.4 Assignor's Rights and Obligations. Any Member who shall Transfer any Units in a manner in accordance with this Agreement shall cease to be a Member with respect to such Units or such other interest and shall no longer have any rights, powers or privileges, or, except as set forth in this Section 9.4, duties, liabilities or obligations, of a Member with respect to such Units or such other interest (it being understood, however, that the applicable provisions of Sections 5.5 and 6.4 shall continue to inure to such Person's benefit), except that unless and until the Assignee is admitted as a substituted Member in accordance with the provisions of Article X (the "**Admission Date**"), (i) such assigning Member shall retain all of the duties, liabilities and obligations of a Member with respect to such Units or other interest, including, without limitation, the obligation (together with its Assignee pursuant to Section 9.3(b)) to make and return Capital Contributions on account of such Units or other interest pursuant to the terms of this Agreement and (ii) the Managing Member may reinstate all or any portion of the rights and privileges of such Member with respect to such Units or other interest for any period of time prior to the Admission Date. Nothing contained herein shall relieve any Member who Transfers any Units or other interest in the Company from any liability of such Member to the Company with respect to such Units that may exist on the Admission Date or that is otherwise specified in the California Act and incorporated into this Agreement or for any liability to the Company or any other Person for any materially false statement made by such Member (in its capacity as such) or for any present or future breaches of any representations, warranties or covenants by such Member (in its capacity as such) contained herein or in the other agreements with the Company.

9.5 Further Restrictions.

(a) Notwithstanding any contrary provision in this Agreement, the Managing Member may impose such vesting requirements, forfeiture provisions, Transfer restrictions, minimum retained ownership requirements or other similar provisions with respect to any Units that are outstanding as of the date of this Agreement or are created thereafter, only with the written consent of the holder of such Units. Such requirements, provisions and restrictions need not be uniform and may be waived or released by the Managing Member in its sole discretion with respect to all or a portion of the Units owned by any one or more Members at any time and from time to time, and shall not, to the fullest extent permitted by law, constitute the breach of any duty hereunder or otherwise existing at law, in equity or otherwise.

(b) Notwithstanding any contrary provision in this Agreement, in no event may any Transfer of Units be made by any Member or Assignee if the Managing Member determines in good faith that:

(i) such Transfer is made to any Person who lacks the legal right, power or capacity to own such Units;

(ii) such Transfer would require the registration of such transferred Units or of any class of Units pursuant to any applicable U.S. federal or state securities laws (including, without limitation, the Securities Act or the Exchange Act) or other non-U.S. securities laws (including Canadian provincial or territorial securities laws) or would constitute a non-exempt distribution pursuant to applicable provincial or state securities laws;

(iii) such Transfer would cause (i) all or any portion of the assets of the Company to (A) constitute "plan assets" (under ERISA, the Code or any applicable Similar Law) of any existing or contemplated Member, or (B) be subject to the provisions of ERISA, Section 4975 of the Code or any applicable Similar Law, or (ii) the Managing Member to become a fiduciary with respect to any existing or contemplated Member, pursuant to ERISA, any applicable Similar Law, or otherwise;

(iv) to the extent requested by the Managing Member, the Company does not receive such legal and/or tax opinions and written instruments (including, without limitation, copies of any instruments of Transfer and such Assignee's consent to be bound by this Agreement as an Assignee) that are in a form satisfactory to the Managing Member, as determined by the Managing Member in good faith; or

(v) such Transfer would pose a material risk that the Company would be treated as a "publicly traded partnership" within the meaning of Section 7704 of the Code and the Treasury Regulations promulgated thereunder.

(c) In addition, notwithstanding any contrary provision in this Agreement, to the extent the Managing Member shall reasonably determine that interests in the Company do not meet the requirements of Treasury Regulation Section 1.7704-1(h) (determined taking into account the rules of Treasury Regulations Section 1.7704-1(h)(3), *provided* that, for such purpose, unless otherwise required by applicable Law, the Company and the Managing Member shall assume that each Member as of immediately after the Pre-IPO Exchanges is treated as a single partner within the meaning of Regulations Section 1.7704-1(h) (and none of the Member's beneficial owners is treated as a separate partner)), the Managing Member may impose such restrictions on the Transfer of Units or other interests in the Company as the Managing Member may reasonably determine to be necessary or advisable so that the Company is not treated as a "publicly traded partnership" within the meaning of Section 7704 of the Code and the Treasury Regulations promulgated thereunder.

9.6 Counterparts; Joinder. Prior to Transferring any Units (other than Exchanges pursuant to the Exchange Agreements, Article XII or any other Transfer to the Company) and as a condition precedent to the effectiveness of such Transfer, the transferring holder of Units will cause the prospective transferee(s) of such Units to execute and deliver to the Company counterparts of this Agreement and any other agreements relating to such Units, or executed joinders to such agreements, in each case, in a form acceptable to the Company. Notwithstanding anything herein to the contrary, to the fullest extent permitted by law, any Person who acquires in any manner whatsoever any Units,

irrespective of whether such Person has accepted and adopted in writing the terms and conditions of this Agreement, shall be deemed by the acceptance of the benefits of the acquisition thereof to have agreed to be subject to and bound by all of the terms and conditions of this Agreement to which any predecessor in such Units was subject or by which such predecessor was bound.

9.7 Ineffective Transfer. Any Transfer or attempted Transfer of any Units in violation of any provision of this Agreement shall, to the fullest extent permitted by law, be void, and the Company will not record such Transfer on its books or treat any purported transferee of such Units as the owner of such securities for any purpose.

ARTICLE X

ADMISSION OF MEMBERS

10.1 Substituted Members. Subject to the provisions of Article IX hereof, in connection with the permitted Transfer (including an Exempt Transfer) of any Units of a Member, the transferee shall become a Substituted Member on the effective date of such Transfer, which effective date shall not be earlier than the date of compliance with the conditions to such Transfer, and such admission shall be shown on the books and records of the Company.

10.2 Additional Members. Subject to the provisions of Article IX hereof, a Person may be admitted to the Company as an Additional Member only upon furnishing to the Company (a) counterparts of this Agreement or an executed joinder to this Agreement in a form acceptable to the Managing Member and (b) such other documents or instruments as may be necessary or appropriate to effect such Person's admission as a Member (including entering into such documents as the Managing Member may deem appropriate); *provided, however*, that PubCo, upon acquiring Units pursuant to the Exchange Agreements, shall, automatically without any further action on the part of the Company or PubCo, be admitted to the Company as an Additional Member. Such admission shall become effective on the date on which the Managing Member determines that such conditions have been satisfied and when any such admission is shown on the books and records of the Company.

10.3 Additional Managing Member. No Person may be admitted to the Company as an additional Managing Member or substitute Managing Member without the prior approval of the holders of Class B Voting Units. A Managing Member will not be entitled to resign as a Managing Member of the Company unless another Managing Member shall have been designated pursuant to Section 5.1 (and not have previously been removed or resigned). Any additional Managing Member or substitute Managing Member admitted as a Managing Member of the Company pursuant to this Section 10.3 is hereby authorized to, and shall, continue the Company without dissolution.

ARTICLE XI

WITHDRAWAL AND RESIGNATION OF MEMBERS

No Member shall have the power or right to withdraw or otherwise resign as a Member from the Company prior to the dissolution and winding up of the Company pursuant to Article XIII without the prior written consent of the Managing Member, except as otherwise expressly permitted by this Agreement. Any Member, however, that attempts to withdraw or otherwise resign as a Member from the Company without the prior written consent of the Managing Member upon or following the dissolution and winding up of the Company pursuant to Article XIII but prior to such Member receiving the full amount of distributions from the Company to which such Member is entitled pursuant to Article XIII shall be liable to the Company for all damages (including all lost profits and special, indirect and consequential damages) directly or indirectly caused by the withdrawal or resignation of such Member, and such Member shall be entitled to receive the Fair Market Value of such Member's equity interest in the Company as of the date of its resignation (or, if less, the amount that such Member would have received on account of such equity interest had such Member not resigned or otherwise withdrew from the Company), as conclusively determined by the Managing Member, on the sixth month anniversary date (or such earlier date determined by the Managing Member) following the completion of the distribution of Company assets as provided in Article XIII to all other Members. Upon a Transfer of all of a Member's Units in a Transfer permitted by this Agreement, subject to the provisions of Section 9.4, such Member shall cease to be a Member.

ARTICLE XII

REDEMPTION AND EXCHANGE RIGHTS

12.1 Exchange Procedures.

(a) Upon the terms and subject to the conditions set forth in this Article XII and the other provisions of this Agreement, after the expiration of the period commencing on the Effective Time and ending on the date that is six (6) months following the Effective Time (the "**Lock-Up Period**"), each Member (other than PubCo) shall be entitled, not more than once per month, to cause the Company to effect an Exchange at least equal to or exceeding the Minimum Exchange Amount, by delivering an Exchange Notice to the Company with a copy to PubCo. Each Exchange Notice shall be in the form set forth on Exhibit A and shall include all information required to be included therein. In the event that an Exchange is being exercised in order to participate in a Piggyback Registration, the Exchange Notice Date shall be prior to the expiration of the time period in which a holder of securities is required to notify PubCo that it wishes to participate in such Piggyback Registration in accordance with the Registration Rights Agreement.

(b) Solely in connection with an Exchange that coincides with a substantially concurrent public offering or private sale of Class A Common Stock, within five (5) Business Days of the giving of an Exchange Notice, the Managing Member may elect to cause the Company to settle all or a portion of the Exchange in cash in an amount equal to the Cash Exchange Payment (in lieu of shares of Class A Common Stock), exercisable by giving written notice of such election to the Exchanging Member within such five (5) Business Day period (such notice, the "**Cash Exchange Notice**"). The Cash Exchange Notice shall set forth the portion of the Exchanged Units which shall be redeemed for cash in lieu of Class A Common Stock. To the extent such Exchange relates to the exercise of the Exchanging Member's registration rights under the Registration Rights Agreement, PubCo and the Company shall cooperate in good faith with such Exchanging Member to exercise such Exchange in a manner which preserves such Exchanging Member's rights thereunder. At any time following the giving of a Cash Exchange Notice and prior to the Exchange Date, the Managing Member may elect (exercisable by giving written notice of such election to the Exchanging Member) to revoke the Cash Exchange Notice with respect to all or any portion of the Exchanged Units and to cause the Company to redeem such Exchanged Units on the Exchange Date for the Stock Exchange Payment. For the avoidance of doubt, the Company shall have no obligation to make a Cash Exchange Payment that exceeds the cash contributed to the Company by PubCo from PubCo's offering or sales of Class A Common Stock referenced in this Section 12.1(b).

(c) In the event the Managing Member does not timely give a Cash Exchange Notice (or revokes a Cash Exchange Notice in accordance with the foregoing Section 12.1(b)), the Exchanging Member may, if and only if any Exchange Condition exists, elect to (x) retract its Exchange Notice or (y) delay the consummation of an Exchange, in each case, exercisable by giving written notice of such election to the Managing Member within two (2) Business Days of the occurrence of an Exchange Condition and in any event no later than one (1) Business Day prior to the Exchange Date (such notice under clause (y), an "**Exchange Delay Notice**"); *provided* that any such notice must specify the particular Exchange Condition giving rise to such election. The giving of any notice pursuant to clause (x) shall terminate all of the Exchanging Member's, the Managing Member's and the Company's rights and obligations under this Article XII arising from such retracted Exchange Notice.

12.2 Exchange Payment. The Exchange shall be consummated on the Exchange Date. Unless PubCo has exercised its PubCo Call Right pursuant to Section 12.6, on the Exchange Date (to be effective immediately prior to the close of business on the Exchange Date) (i) PubCo shall contribute to the Company for delivery to the Exchanging Member (x) the Stock Exchange Payment with respect to any Exchanged Units not subject to a Cash Exchange Notice and (y) the Cash Exchange Payment with respect to any Exchanged Units subject to a Cash Exchange Notice, (ii) the Exchanging Member shall transfer and surrender the Exchanged Units to the Company, free and clear of all liens and encumbrances, (iii) the Company shall issue to PubCo a number of Class A Common Units equal to the number of Class A Common Units surrendered pursuant to clause (ii), (iv) solely to the extent necessary in connection with an Exchange, PubCo shall undertake all actions, including an issuance, reclassification, distribution, division or recapitalization, with respect to the Class A Common Stock to maintain a one-to-one ratio between the number of Class A Common Units owned by PubCo, directly or indirectly, and the number of outstanding shares of Class A Common Stock and Class C Common Stock, taking into account the issuance in clause (iii), any Stock Exchange

Payment, and any other action taken in connection with this Article XII, (v) the Company shall (x) cancel the redeemed Class A Common Units which were Exchanged Units held by the Exchanging Member and (y) transfer to the Exchanging Member the Cash Exchange Payment and/or the Stock Exchange Payment, as applicable, and (vi) PubCo shall cancel the surrendered shares of Paired Voting Stock. On or prior to the Exchange Date, and as a condition to the Exchange, the Exchanging Member shall make any applicable Certificate Delivery. Upon the Exchange of all of a Member's Units, such Member shall cease to be a Member of the Company.

12.3 Splits, Distributions and Reclassifications. If there is any reclassification, reorganization, recapitalization or other similar transaction in which the shares of Class A Common Stock are converted or changed into another security, securities or other property, this Article XII shall continue to be applicable, mutatis mutandis, with respect to such security or other property. This Section 12.3 is intended to preserve the intended economic effect of Section 3.1 and this Article XII and to put each Member in the same economic position, to the greatest extent possible, with respect to Exchanges as if such reclassification, reorganization, recapitalization or other similar transaction had not occurred and shall be interpreted in a manner consistent with such intent.

12.4 PubCo Covenants. PubCo shall at all times keep available, solely for the purpose of issuance upon an Exchange, out of its authorized but unissued shares of Class A Common Stock, such number of shares of Class A Common Stock that shall be issuable upon the Exchange of all outstanding Class A Common Units (other than those Class A Common Units held by PubCo); provided that nothing contained in this Agreement shall be construed to preclude the Company or PubCo from satisfying their obligations with respect to an Exchange by delivery of a Cash Exchange Payment or shares of Class A Common Stock that are held in treasury of PubCo. PubCo covenants that all shares of Class A Common Stock that shall be issued upon an Exchange shall, upon issuance thereof, be validly issued, fully paid and non-assessable, free and clear of all liens and encumbrances. In addition, for so long as the shares of Class A Common Stock are listed on a stock exchange or automated or electronic quotation system, PubCo shall cause all shares of Class A Common Stock issued upon an Exchange to be listed on such stock exchange or automated or electronic quotation system at the time of such issuance. For purposes of this Section 12.4, references to the "Class A Common Stock" shall be deemed to include any Equity Securities issued or issuable as a result of any reclassification, combination, subdivision or similar transaction of the Class A Common Stock that any Member would be entitled to receive pursuant to Section 12.3.

12.5 Exchange Taxes. PubCo, the Company and each Exchanging Member shall bear their own expenses in connection with the consummation of any Exchange, whether or not any such Exchange is ultimately consummated, except that the Company shall bear any transfer taxes, stamp taxes or duties, or other similar taxes in connection with, or arising by reason of, any Exchange; *provided*, however, that if any shares of Class A Common Stock are to be delivered in a name other than that of the Exchanging Member (subject to the restrictions in Article IX), then the Person or Persons in whose name the shares are to be issued shall pay to the Company or PubCo, as applicable, the amount of any additional tax that may be payable in respect of any Transfer involved in such issuance in excess of the amount otherwise due if such shares were issued in the name of the Exchanging Member or shall establish to the reasonable satisfaction of the Company or PubCo, as applicable, that such additional tax has been paid or is not payable.

12.6 PubCo Call Rights. Notwithstanding anything to the contrary contained in this Section 12.6, with respect to any Exchange Notice, an Exchanging Member shall be deemed to have offered to sell its Exchanged Units as described in any Exchange Notice directly to PubCo (rather than causing the Company to redeem such Exchanged Units), and PubCo may, by delivery of a written notice to the Exchanging Member no later than five (5) Business Days following the giving of an Exchange Notice, in accordance with, and subject to the terms of, this Section 12.6 (such notice, a "**PubCo Call Notice**"), elect to purchase directly and acquire such Exchanged Units on the Exchange Date by paying to the Exchanging Member (or such other Person specified in the Exchange Notice) the Stock Exchange Payment and/or the Cash Exchange Payment, whereupon PubCo shall acquire the Exchanged Units on the Exchange Date and be treated for all purposes of this Agreement as the owner of such Class A Common Units. Except as otherwise provided in this Section 12.6, an exercise of the PubCo Call Right shall be consummated pursuant to the same timeframe and in the same manner as the relevant Exchange would have been consummated if PubCo had not given a PubCo Call Notice, in each case as relevant, including that Section 12.1(b) shall apply *mutatis mutandis* and that clauses (iv) and (vi) of Section 12.2 shall apply (notwithstanding that the other clauses thereof do not apply).

12.7 Distribution Rights. No Exchange shall impair the right of the Exchanging Member to receive any Distributions payable on the Class A Common Units redeemed pursuant to such Exchange in respect of a record date that occurs prior to the Exchange Date for such Exchange. No Exchanging Member, or a Person designated by an Exchanging Member to receive shares of Class A Common Stock, shall be entitled to receive, with respect to such record date, Distributions or dividends both on Class A Common Units redeemed by the Company from such Exchanging Member and on shares of Class A Common Stock received by such Exchanging Member, or other Person so designated, if applicable, in such Exchange.

12.8 Exchange Restrictions

(a) Notwithstanding any contrary provision in this Agreement, to the extent the Managing Member shall reasonably determine that interests in the Company do not meet the requirements of Treasury Regulation Section 1.7704-1(h) (determined taking into account the rules of Treasury Regulations Section 1.7704-1(h)(3), *provided* that, for such purpose, unless otherwise required by applicable Law, the Company and the Managing Member shall assume that each Member as of immediately following the Pre-IPO Exchanges is treated as a single partner within the meaning of Regulations Section 1.7704-1(h) (and none of the Member's beneficial owners is treated as a separate partner)), the Managing Member may impose such restrictions on Exchanges (including limiting Exchanges or creating priority procedures for Exchanges) as the Managing Member may reasonably determine to be necessary or advisable so that the Company is not treated as a "publicly traded partnership" within the meaning of Section 7704 of the Code and the Treasury Regulations promulgated thereunder. If the Managing Member determines in good faith that any such limitations or restrictions are necessary, then before imposing any such restrictions, the Managing Member shall first consult in good faith with the Continuing Member Representative in order to attempt to ameliorate the cause of such restrictions. Notwithstanding anything to the contrary herein, no Exchange shall be permitted (and, if attempted, shall, to the fullest extent permitted by law, be void ab initio) if, in the good faith determination of the Managing Member, such Exchange would pose a material risk that the Company would be treated as a "publicly traded partnership" under Section 7704 of the Code.

(b) For the avoidance of doubt, and notwithstanding anything to the contrary herein, a Member shall not be entitled to effect an Exchange to the extent PubCo or the Company reasonably determines that such Exchange (i) would be prohibited by law or regulation (including, without limitation, the unavailability of any requisite registration statement filed under the Securities Act or any exemption from the registration requirements thereunder) or (ii) would not be permitted under any other agreements with PubCo or its subsidiaries by which such Member is bound (including, without limitation, this Agreement) or any written policies of PubCo related to unlawful or inappropriate trading applicable to its directors, officers or other personnel. Upon such determination, PubCo shall notify the Member requesting the Exchange of such determination, which notice shall include an explanation in reasonable detail as to the reason that the Exchange has not been effected.

12.9 Tax Matters

(a) In connection with any Exchange, the Exchanging Member shall, to the extent it is legally entitled to do so, deliver to PubCo or the Company, as applicable, a certificate, dated as of the Exchange Date and sworn under penalties of perjury, in a form reasonably acceptable to PubCo or the Company, as applicable, certifying as to such Exchanging Member's taxpayer identification number and that such Exchanging Member is a not a foreign person for purposes of Section 1445 and Section 1446(f) of the Code, which certificate may be an Internal Revenue Service Form W-9 if then sufficient for such purposes under applicable Law (such certificate a "**Non-Foreign Person Certificate**"). If an Exchanging Member is unable to provide a Non-Foreign Person Certificate in connection with an Exchange, then, at the Managing Member's option, (i) such Exchanging Member shall provide a certificate substantially in the form described in Treasury Regulations Section 1.1446(f)-2(c)(2)(ii)(B) or (ii) the Company shall deliver a certificate substantially in the form described in Regulations Section 1.1446(f)-2(c)(2)(ii)(C), in each case setting forth the liabilities of the Company allocated to the Exchanged Units under Section 752 of the Code, and PubCo or the Company, as applicable, shall be permitted to withhold on the amount realized by such Exchanging Partner in respect of such Exchange as provided in Section 1446(f) of the Code and Treasury Regulations thereunder and consistent with the certificate provided pursuant to clause (i) or (ii) of this sentence, as applicable.

(b) For U.S. federal and applicable state and local income tax purposes, each of the Exchanging Member, the Company and PubCo agree to treat, to the maximum extent permitted by applicable law, each Exchange

as a taxable sale by the Exchanging Member of the Exchanging Member's Class A Common Units (together with an equal number of shares of Paired Voting Stock, which shares shall not be allocated any economic value) to PubCo in exchange for (A) the payment by PubCo of the Stock Exchange Payment, the Cash Exchange Payment, or other applicable consideration to the Exchanging Member, and (B) corresponding payments under the Tax Receivable Agreement. Within thirty (30) days following the Exchange Date, PubCo shall deliver a Section 743 notification to the Company in accordance with Treasury Regulations Section 1.743-1(k)(2).

12.10 Withholding. Notwithstanding any other provision in this Agreement, with respect to any Exchange pursuant to Article XII, PubCo, the Company and their agents and affiliates shall have the right to deduct and withhold taxes (in cash or in kind, including Class A Common Stock with a fair market value determined in the sole discretion of the Managing Member equal to the amount of such taxes) from any payments to be made pursuant to such Exchange, if, in their opinion, such withholding is required by law. The Managing Member may, in its sole discretion, allow an Exchanging Member to pay such taxes owed on the Exchange in cash in lieu of the Company or PubCo, as applicable, withholding or deducting such taxes. To the extent that any of the aforementioned amounts are so withheld, such withheld amounts shall be treated for all purposes of this Agreement as having been delivered and paid to the recipient of the payments in respect of which such deduction and withholding was made. To the extent that any payment pursuant to this Agreement is not reduced by such deductions or withholdings, such recipient shall indemnify the applicable withholding agent for any amounts imposed by any taxing authority together with any costs and expenses related thereto.

12.11 Representations and Warranties. In connection with any Exchange or exercise of a PubCo Call Right, (i) upon the acceptance of the Class A Common Stock or an amount of cash equal to the Cash Exchange Payment, the Exchanging Member shall represent and warrant that the Exchanging Member is the owner of the number of Class A Common Units that the Exchanging Member is electing to Exchange and that such Class A Common Units are not subject to any liens or restrictions on transfer (other than restrictions imposed by this Agreement, the certificate of incorporation, bylaws and any other governing documents of PubCo and applicable Law), and (ii) if the Managing Member elects a Stock Exchange Payment, the Managing Member shall represent that (A) the shares of Class A Common Stock issued to the Exchanging Member in settlement of the Stock Exchange Payment are duly authorized, validly issued, fully paid and non-assessable and were issued in compliance in all material respects with applicable securities laws, and (B) the issuance of such shares of Class A Common Stock issued to the Exchanging Member in settlement of the Stock Exchange Payment does not conflict with or result in any breach of the organizational documents of PubCo.

ARTICLE XIII

DISSOLUTION AND WINDING UP

13.1 Dissolution. The Company shall not be dissolved by the admission of Additional Members or Substituted Members or the attempted withdrawal or resignation of a Member. The Company shall dissolve, and its affairs shall be wound up, upon:

(a) the entry of a decree of judicial dissolution of the Company under Section 17707.03 of the California Act;

(b) any event which makes it unlawful for the business of the Company to be carried on by the Members;

(c) at any time there are no Members, unless the Company is continued in accordance with the California Act; or

(d) the determination of the Managing Member in its sole discretion; *provided* that in the event of a dissolution pursuant to this clause (d), the relative economic rights of each class of Units immediately prior to such dissolution shall be preserved to the greatest extent practicable with respect to distributions made to Members pursuant to Section 13.2 in connection with the winding up of the Company, taking into consideration tax and other legal constraints that may adversely affect one or more parties hereto and subject to compliance with applicable laws and regulations, unless, and to the extent that, with respect to any class of Units, holders of not less than 90% of the

Units of such class consent in writing to a treatment other than as described above; *provided*, that if the dissolution of the Company pursuant to and in accordance with clauses (b) or (d) in this Section 13.1 would have a material adverse effect on any Member, the dissolution of the Company shall require the prior written consent of such Member, which consent shall not be unreasonably withheld.

Except as otherwise set forth in this Article XIII, the Company is intended to have perpetual existence. An Event of Withdrawal shall not, in and of itself, cause a dissolution of the Company and the Company shall continue in existence subject to the terms and conditions of this Agreement.

13.2 Winding Up and Termination. On dissolution of the Company, the Managing Member shall act as liquidating trustee or may appoint one or more Persons as liquidating trustee. The liquidating trustee shall proceed diligently to wind up the affairs of the Company and make final distributions as provided herein and in the California Act. The costs of winding up shall be borne as a Company expense. Until the final Distribution, the liquidating trustee shall continue to operate the Company properties with all of the power and authority of the Managing Member. The steps to be accomplished by the liquidating trustee are as follows:

(a) as promptly as possible after dissolution and again after completion of the winding up, the liquidating trustee shall cause a proper accounting to be made by a recognized firm of certified public accountants of the Company's assets, liabilities and operations through the last day of the calendar month in which the dissolution occurs or the completion of the winding up is completed, as applicable;

(b) the liquidating trustee shall pay, satisfy or discharge from Company funds all of the debts, liabilities and obligations of the Company (including, without limitation, all expenses incurred of winding up) or otherwise make adequate provision for payment and discharge thereof (including, without limitation, the establishment of a cash fund for contingent, conditional or unmatured liabilities in such amount and for such term as the liquidating trustee may reasonably determine); and

(c) all remaining assets of the Company shall be distributed to the Members in accordance with Section 4.1(b) by the end of the Taxable Year of the Company during which the winding up of the Company occurs (or, if later, by ninety (90) days after the date of the winding up).

The Distribution of cash and/or property to Members in accordance with the provisions of this Section 13.2 and Section 13.3 constitutes a complete return to the Members of their Capital Contributions and a complete Distribution to the Members of their interest in the Company and all the Company's property and constitutes a compromise to which all Members have consented within the meaning of the California Act. To the extent that a Member returns funds to the Company, it has no claim against any other Member for those funds.

13.3 Deferment; Distribution in Kind. Notwithstanding the provisions of Section 13.2, but subject to the order of priorities set forth therein, if upon dissolution of the Company the liquidating trustee determines that an immediate sale of part or all of the Company's assets would be impractical or would cause undue loss (or would otherwise not be beneficial) to the Members, the liquidating trustee may, in its sole discretion, defer for a reasonable time the winding up of any assets except those necessary to satisfy Company liabilities (other than loans to the Company by Members) and reserves. Subject to the order of priorities set forth in Section 13.2, the liquidating trustee may, in its sole discretion, distribute to the Members, in lieu of cash, either (i) all or any portion of such remaining Company assets in-kind in accordance with the provisions of Section 13.2(c), (ii) as tenants in common and in accordance with the provisions of Section 13.2(c), undivided interests in all or any portion of such Company assets or (iii) a combination of the foregoing. Any such Distributions in kind shall be subject to (x) such conditions relating to the disposition and management of such assets as the liquidating trustee deems reasonable and equitable and (y) the terms and conditions of any agreements governing such assets (or the operation thereof or the holders thereof) at such time. Any Company assets distributed in kind will first be written up or down to their Fair Market Value, thus creating Profit or Loss (if any), which shall be allocated in accordance with Section 4.2. The liquidating trustee shall determine the Fair Market Value of any property distributed in accordance with the valuation procedures set forth in Article XIV.

13.4 Cancellation of Certificate. On completion of the winding up of the Company's affairs and distribution of Company assets as provided herein, the Company is terminated (and the Company shall not be terminated prior to such time), and the Managing Member (or such other Person or Persons as the California Act may

require or permit) shall file a certificate of cancellation with the Secretary of State of California, cancel any other filings made pursuant to this Agreement that are or should be canceled and take such other actions as may be necessary to terminate the Company. The Company shall be deemed to continue in existence for all purposes of this Agreement until it is terminated pursuant to this Section 13.4.

13.5 Reasonable Time for Winding Up. A reasonable time shall be allowed for the orderly winding up of the business and affairs of the Company and the liquidation of its assets pursuant to Sections 13.2 and 13.3 in order to minimize any losses otherwise attendant upon such winding up.

13.6 Return of Capital. The liquidating trustee shall not be personally liable for the return of Capital Contributions or any portion thereof to the Members (it being understood that any such return shall be made solely from Company assets).

ARTICLE XIV

VALUATION

14.1 Value. "**Fair Market Value**" of any asset, property or equity interest means the amount which a seller of such asset, property or equity interest would receive in a sale of such asset, property or equity interest in an arms-length transaction with an unaffiliated third party consummated on a date determined by the Managing Member (which may be the date on which the event occurred which necessitated the determination of the Fair Market Value) (and after giving effect to any transfer taxes payable in connection with such sale). Notwithstanding the foregoing, in making the determination of Fair Market Value as described in Section 14.2, the Managing Member, the Continuing Member Representative and any investment banking firm (as described below) shall not give effect or take into account any "minority discount" or "liquidity discount" (or any similar discount arising out of the fact that the Units are restricted or is not registered with the Securities and Exchange Commission, publicly traded or listed on a securities exchange), but shall value the Company and its Subsidiaries and their respective businesses in their entirety on an enterprise basis using any variety of industry recognized valuation techniques commonly used to value businesses.

14.2 Determination and Dispute. Fair Market Value shall be determined by the Managing Member (or, if pursuant to Section 13.3, the liquidating trustee) in its good faith judgment in such manner as it deems reasonable and using all factors, information and data deemed to be pertinent. Notwithstanding the foregoing, at the request of the Continuing Member Representative, the Managing Member will retain an investment banking firm of recognized national standing reasonably acceptable to the Continuing Member Representative to determine the Fair Market Value of such Units, assets or consideration.

ARTICLE XV

GENERAL PROVISIONS

15.1 Power of Attorney.

(a) Each holder of Units hereby constitutes and appoints the Managing Member and the liquidating trustee, with full power of substitution, as his, her or its true and lawful agent and attorney-in-fact, with full power and authority in his, her or its name, place and stead, to:

(i) execute, swear to, acknowledge, deliver, file and record in the appropriate public offices (A) this Agreement, all certificates and other instruments and all amendments thereof which the Managing Member deems appropriate or necessary to form, qualify, or continue the qualification of, the Company as a limited liability company in the State of California and in all other jurisdictions in which the Company may conduct business or own property; (B) all instruments which the Managing Member deems appropriate or necessary to reflect any amendment, change, modification or restatement of this Agreement in accordance with its terms; (C) all conveyances and other instruments or documents which the Managing Member deems appropriate or necessary to reflect the dissolution and winding up of the Company pursuant

to the terms of this Agreement, including a certificate of cancellation; and (D) all instruments relating to the admission, withdrawal or substitution of any Member pursuant to Article X or Article XI; and

(ii) sign, execute, swear to and acknowledge all ballots, consents, approvals, waivers, certificates and other instruments appropriate or necessary, in the reasonable judgment of the Managing Member, to evidence, confirm or ratify any vote, consent, approval, agreement or other action which is made or given by such holder of Units hereunder or is consistent with the terms of this Agreement and/or appropriate or necessary (and not inconsistent with the terms of this Agreement), in the reasonable judgment of the Managing Member, to effectuate the terms of this Agreement.

(b) For the avoidance of doubt, the foregoing power of attorney does not include the power or authority to vote any Units held by any Member on any matter on which the Members have a right to vote, either at a meeting or by any written consent, as contemplated under this Agreement.

(c) The foregoing power of attorney is irrevocable and coupled with an interest, and shall survive the death, disability, incapacity, dissolution, bankruptcy, insolvency or termination of any holder of Units and the Transfer of all or any portion of his, her or its Units and shall extend to such holder's heirs, successors, assigns and personal representatives.

15.2 Amendments.

(a) The Managing Member (pursuant to its power of attorney from the holders of Units as provided in Section 15.1 or otherwise), without the consent of any holder of Units, may amend any provision of this Agreement, and execute, swear to, acknowledge, deliver, file and record whatever documents may be required in connection therewith, to reflect:

(i) a change in the name of the Company or the location of the principal place of business of the Company;

(ii) admission, substitution, removal or withdrawal or resignation of Members or Assignees in accordance with this Agreement;

(iii) a change that does not adversely affect any holder of Units in any material respect in its capacity as an owner of Units and is necessary or desirable to satisfy any requirements, conditions or guidelines contained in any opinion, directive, order, ruling or regulation of any United States federal or state agency or judicial authority or contained in any United States federal or state statute; or

(iv) amendments contemplated by Section 3.1(c).

(b) Except as provided in Section 2.2 and Section 15.2(a), this Agreement may not be amended or modified except with the consent of the Managing Member and, so long as the Founder Ownership Percentage is at least 15%, the approval of the Continuing Member Representative. Notwithstanding the preceding sentence, (i) no consent or approval shall be required for the Company to admit a Permitted Transferee as a Member following an Exempt Transfer completed in compliance with this Agreement, and (ii) if the Founder Ownership Percentage is less than 15%, the Continuing Member Representative must also consent to or approve any amendments or modifications to Article IV, Section 6.1, Section 9.1, Article XII, Section 13.2, this Section 15.2 or related definitions or any other amendments or modifications that affect the rights granted to Continuing Members in such sections in any material respect, including, without limitation, changes to the number of shares of Class A Common Stock issued upon an Exchange, either through an amendment to the definition of "Exchange Rate" or otherwise, or that otherwise increases the obligations or decreases the benefits to the Continuing Members. Notwithstanding the foregoing, any amendment which would materially and adversely affect the rights or duties of a Member on a discriminatory and non-pro rata basis shall require the consent of such Member, other than those actions set forth in Section 15.2(a) above. In addition, the amendment of any specific approval, consent, voting right, or transfer rights of a specified Member shall require the approval of such Member, *provided* that such Member holds the number of Units, as applicable, required to exercise such rights. Any amendment or modification effected in accordance with this Section 15.2(b) shall be

effective, in accordance with its terms, with respect to the rights and obligations of and binding upon all Members. For the avoidance of doubt, without any action or requirement of consent by any Member, the Company shall update the books and records of the Company to remove a Member's name therefrom once such Member no longer holds any Equity Securities, following which such Person shall cease to be a "Member" or have any rights or obligations under this Agreement.

15.3 Title to Company Assets. The Company assets shall be deemed to be owned by the Company as an entity, and no holder of Units, individually or collectively, shall have any ownership interest in such Company assets or any portion thereof. The Managing Member hereby declares and warrants that any Company assets for which legal title is held in its name or the name of any nominee shall be held in trust by the Managing Member or such nominee for the use and benefit of the Company in accordance with the provisions of this Agreement. All Company assets shall be recorded as the property of the Company on its books and records, irrespective of the name in which legal title to such Company assets is held.

15.4 Addresses and Notices. Any notice provided for in this Agreement will be in writing and will be either personally delivered, or received by certified mail, return receipt requested, sent by reputable overnight courier service (charges prepaid) or electronic mail to the Company at the address set forth below and to any other recipient and to any holder of Units at such address as indicated by the Company's records, or at such address or to the attention of such other person as the recipient party has specified by prior written notice to the sending party. Notices will be deemed to have been given hereunder when delivered personally or sent by electronic mail (provided confirmation of transmission is received), three days after deposit in the U.S. mail and one day after deposit with a reputable overnight courier service. The Company's address is:

To the Company:

Rani Therapeutics, LLC
2051 Ringwood Avenue
San Jose, CA 95131
Email Address: svai@ranitherapeutics.com
Attention: Chief Financial Officer

To the Managing Member:

Rani Therapeutics Holdings, Inc.
2051 Ringwood Avenue
San Jose, CA 95131
Email Address: svai@ranitherapeutics.com
Attention: Chief Financial Officer

in each case, with a copy (which shall not constitute written notice) to:

Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304-1130
Email Address: jseidenfeld@cooley.com
Attention: Josh Seidenfeld

15.5 Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their heirs, executors, administrators, successors, legal representatives and permitted assigns.

15.6 Creditors. None of the provisions of this Agreement shall be for the benefit of or enforceable by any creditors of the Company or any of its Affiliates, and no creditor who makes a loan to the Company or any of its Affiliates may have or acquire (except pursuant to the terms of a separate agreement executed by the Company in favor of such creditor) at any time as a result of making the loan any direct or indirect interest in Company Profits, Losses, Distributions, capital or property other than as a secured creditor.

15.7 Waiver. No failure by any party to insist upon the strict performance of any covenant, duty, agreement or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof shall constitute a waiver of any such breach or any other covenant, duty, agreement or condition.

15.8 Counterparts. This Agreement may be executed in separate counterparts, each of which will be an original and all of which together shall constitute one and the same agreement binding on all the parties hereto. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, the Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

15.9 Applicable Law; Waiver of Jury Trial. This Agreement shall be governed by, and construed in accordance with, the laws of the State of California, without giving effect to any choice of law or conflict of law rules or provisions (whether of the State of California or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of California. Any dispute relating hereto shall be heard in the state or federal courts of California, and the parties agree to exclusive jurisdiction and venue therein and waive, to the fullest extent permitted by law, any objection based on venue or *forum non conveniens* with respect to any action instituted therein. The parties hereto hereby consent to service being made through the notice procedures set forth in Section 15.4 and irrevocably submit to the jurisdiction of the aforesaid courts. THE PARTIES HERETO HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

15.10 Severability. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other provision or the effectiveness or validity of any provision in any other jurisdiction, and this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein.

15.11 Further Action. The parties shall use commercially reasonable efforts to execute and deliver all documents, provide all information and take or refrain from taking such actions as may be necessary or appropriate to achieve the purposes of this Agreement.

15.12 Delivery by Facsimile. This Agreement and any signed agreement or instrument entered into in connection with this Agreement or contemplated hereby, and any amendments hereto or thereto, to the extent signed and delivered by means of a facsimile machine or electronic transmission (i.e., in portable document format), shall be treated in all manner and respects as an original agreement or instrument and shall be considered to have the same binding legal effect as if it were the original signed version thereof delivered in person. At the request of any party hereto or to any such agreement or instrument, each other party hereto or thereto shall re-execute original forms thereof and deliver them to all other parties. No party hereto or to any such agreement or instrument shall raise the use of a facsimile machine or electronic transmission to deliver a signature or the fact that any signature or agreement or instrument was transmitted or communicated through the use of a facsimile machine or electronic transmission as a defense to the formation of a contract and each such party forever waives any such defense. The words “execution,” “signed,” “signature,” “delivery,” and words of like import in or relating to this Agreement or any document to be signed in connection with this Agreement shall be deemed to include electronic signatures, deliveries or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature, physical delivery thereof or the use of a paper-based recordkeeping system, as the case may be, and the parties hereto consent to conduct the transactions contemplated hereunder by electronic means.

15.13 Offset. Whenever the Company is to pay any sum to any holder of Units or any Affiliate or related person thereof, any undisputed amounts that such holder of Units or such Affiliate or related person owes to the Company (such lack of dispute to be evidenced by written confirmation of such by such holder of Units or related person thereof) may be deducted from that sum before payment.

15.14 Entire Agreement. This Agreement, those documents expressly referred to herein (including the Exchange Agreements and the Tax Receivable Agreement) and other documents of even date herewith embody the complete agreement and understanding among the parties and supersede and preempt any prior understandings, agreements or representations by or among the parties, written or oral (including the Prior Agreement), which may have related to the subject matter hereof in any way.

15.15 Remedies. Each holder of Units shall have all rights and remedies set forth in this Agreement and all rights and remedies which such Person has been granted at any time under any other agreement or contract and all of the rights which such Person has under any law. Any Person having any rights under any provision of this Agreement or any other agreements contemplated hereby shall be entitled to seek to enforce such rights specifically (without posting a bond or other security), to recover damages by reason of any breach of any provision of this Agreement and to exercise all other rights granted by law.

15.16 Descriptive Headings; Interpretation. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a substantive part of this Agreement. Whenever required by the context, any pronoun used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns, pronouns and verbs shall include the plural and vice versa. The use of the word "including" in this Agreement shall be by way of example rather than by limitation. Reference to any agreement, document or instrument means such agreement, document or instrument as amended or otherwise modified from time to time in accordance with the terms thereof, and if applicable hereof. Wherever required by the context, references to a Fiscal Year shall refer to a portion thereof. The use of the words "or," "either" and "any" shall not be exclusive. The parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, to the fullest extent permitted by law, this Agreement shall be construed as if drafted jointly by the parties hereto, and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement. Wherever a conflict exists between this Agreement and any other agreement, this Agreement shall control but solely to the extent of such conflict.

15.17 Spousal Consent. Each Member who is married severally represents that true and complete copies of this Agreement and all documents to be executed by such Member hereunder have been furnished to his or her spouse; represents and warrants to the Company and to the other Members that such spouse has read this Agreement and all related documents applicable to such Member, is familiar with each of their terms, and has agreed to be bound to the obligations of such Member hereunder and thereunder.

* * * * *

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

RANI THERAPEUTICS, LLC

By: /s/ Talat Imran
Name:
Title: Chief Executive Officer

RANI THERAPEUTICS HOLDINGS, INC., including with respect to the Class B Voting Units anticipated to be acquired pursuant to the Exchange Agreements

By: /s/ Talat Imran
Name: Talat Imran
Title: Chief Executive Officer

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

INCUBE LABS, LLC

By: /s/ Mir Imran
Name: Mir Imran
Title: President

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

INCUBE VENTURES II, L.P.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Member

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBERS:

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI IV

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA QP FUND LLC – SERIES RANI III

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Member

BUTTONWOOD ALPHA FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

BUTTONWOOD ALPHA QP FUND LLC

By: Buttonwood Select Opportunities Management Associates LLC, its Manager

By: /s/ Stephan A. Stein
Name: Stephan A. Stein
Title: Manager

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ER INVESTMENT GROUP 1 LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

ERS INVESTMENTS LLC

By: /s/ Elie Rieder
Name: Elie Rieder
Title: Managing Member

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

GV 2013, L.P.

By: GV 2013 GP, L.L.C.,
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2015, L.P.

By: GV 2015 GP, L.L.C.
Its: General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

GV 2017, L.P.

By: GV 2017 GP, L.P., its General Partner
By: GV 2017 GP, L.L.C., its General Partner

By: /s/ Inga Goldbard
Name: Inga Goldbard
Title: General Counsel

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

MEDIMMUNE, LLC

By: /s/ David E. White
Name: David E. White
Title: Treasurer

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

NOVARTIS PHARMACEUTICALS CORPORATION

By: /s/ Marc Ceulemans
Name: Marc Ceulemans
Title: Head Strategic Venture Fund & Pharma Equities

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

RANI INVESTMENT CORP.

By: /s/ Andrew Farquharson
Name: Andrew Farquharson
Title: Managing Director

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

TAKEDA VENTURES, INC.

By: /s/ Michael Martin
Name: Michael Martin
Title: President, Takeda Ventures, Inc.

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

DAVID PYOTT LIVING TRUST

By: /s/ David Pyott
Name: David Pyott
Title: Trustee

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ANGELA MURCH

/s/ Angela Murch
(Signature)

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

DENNIS AUSIELLO

By: /s/ Dennis Ausiello

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ARTHUR CHANG

By: /s/ Arthur Chang

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

WYE-CHI CHOK

By: /s/ Wye-Chi Chok

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ARVINDER DHALLA

By: /s/ Arvinder Dhalla

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ANDREW FARQUHARSON

By: /s/ Andrew Farquharson

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

MIR HASHIM

By: /s/ Mir Hashim

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

AELYA IMRAN

By: /s/ Aelya Imran

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

SANAH IMRAN

By: /s/ Sanah Imran

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

TALAT IMRAN

By: /s/ Talat Imran

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ABBAS KHORSAND

By: /s/ Abbas Khorsand

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

YUHUA LIU

By: /s/ Yuhua Liu

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ROSS MASON

By: /s/ Ross Mason

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

STEPHANIE MCGRORY

By: /s/ Stephanie McGrory

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

MAULIK NANAVATY

By: /s/ Maulik Nanavaty

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

CHANG ONG

By: /s/ Chang Ong

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

CHRISTINE PHAN

By: /s/ Christine Phan

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

DAVID PYOTT

By: /s/ David Pyott

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

SVAI SANFORD

By: /s/ Svai Sanford

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ABIDA SYED

By: /s/ Abida Syed

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

SOHAIL SYED

By: /s/ Sohail Syed

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

MOHSEN SHIRAZI

By: /s/ Mohsen Shirazi

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

ALPHA SUGARCOAT INVESTMENT LLC

By: /s/ Renee Li
Name: Renee Li
Title: Chief Executive Officer

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

BETSY GUTIERREZ

By: /s/ Betsy Gutierrez

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

RADHIKA KORUPOLU

By: /s/ Radhika Korupolu

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

AMINA IMRAN

By: /s/ Amina Imran

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

GARY DANG

By: /s/ Gary Dang

IN WITNESS WHEREOF, the undersigned have executed this Fifth Amended and Restated Limited Liability Company Agreement as of the date first written above.

MEMBER:

SHAYLA IMRAN

By: /s/ Shayla Imran

EXHIBIT A

[FORM OF]
ELECTION OF EXCHANGE

Rani Therapeutics Holdings, Inc.
2051 Ringwood Avenue
San Jose, CA 95131

Email Address: [svai@ranitherapeutics.com]
Attention: [Chief Financial Officer]

Rani Therapeutics, LLC
2051 Ringwood Avenue
San Jose, CA 95131

Email Address: [svai@ranitherapeutics.com]
Attention: [Chief Financial Officer]

Reference is hereby made to the Fifth Amended and Restated Limited Liability Company Agreement of Rani Therapeutics, LLC, a California limited liability company (the "**Company**"), dated as of August 3, 2021 (as amended from time to time, the "**LLC Agreement**"), among Rani Therapeutics Holdings, Inc., a Delaware corporation ("**PubCo**"), the Company, and the Members from time to time party thereto (each, a "**Holder**"). Capitalized terms used but not defined herein shall have the meanings given to them in the LLC Agreement.

Effective as of the Exchange Date as determined in accordance with the LLC Agreement, the undersigned Member hereby transfers and surrenders to the Company the number of Class A Common Units set forth below and an equal number of shares of Paired Voting Stock held by such Member in exchange for the issuance to the undersigned Member of that number of shares of Class A Common Stock equal to the number of Class A Common Units so exchanged (to be issued in its name as set forth below), or, at the sole election of the Managing Member, a Cash Exchange Payment to the account set forth below, in each case in accordance with the LLC Agreement. The undersigned hereby acknowledges that the Exchange of Class A Common Units shall include the cancellation of an equal number of outstanding shares of Paired Voting Stock held by the undersigned that have been surrendered in such Exchange.

Legal Name of Undersigned Member:

Address: _____

_____

Number of Class A Common Units to be Exchanged: _____

Cash Exchange Payment instructions:

If the undersigned Member desires the shares of Class A Common Stock be settled through the facilities of The Depositary Trust Company ("**DTC**"), please indicate the account of the DTC participant below.

In the event PubCo elects to certificate the shares of Class A Common Stock issued to the Member, please indicate the following:

Legal Name for Certificate Delivery: _____

Address for Certificate Delivery: _____

The undersigned hereby represents and warrants that (i) the undersigned has full legal capacity to execute and deliver this Election of Exchange and to perform the undersigned's obligations hereunder; (ii) this Election of Exchange has been duly executed and delivered by the undersigned and is the legal, valid and binding obligation of the undersigned enforceable against it in accordance with the terms thereof or hereof, as the case may be, subject to applicable bankruptcy, insolvency and similar laws affecting creditors' rights generally and the availability of equitable remedies; (iii) no consent, approval, authorization, order, registration or qualification of any third party or with any court or governmental agency or body having jurisdiction over the undersigned, the Class A Common Units, the Paired Voting Stock or shares of Class A Common Stock subject to this Election of Exchange is required to be obtained by the undersigned for the transfer of such Class A Common Units, Paired Voting Stock or shares of Class A Common Stock to the Company (or PubCo, as applicable); (iv) the undersigned has complied with any qualifications or filings required under applicable securities laws; (v) the undersigned is the owner of the number of Class A Common Units and Paired Voting Stock the undersigned is electing to Exchange pursuant to this Exchange Notice, and that such Class A Common Units and Paired Voting Stock are not subject to any liens or restrictions on transfer (other than restrictions imposed by the Agreement, the charter and governing documents of PubCo and applicable Law); (vi) the undersigned is an accredited investor as such term is defined in Rule 501 of Regulation D under the Securities Act of 1933, as amended; (vii) the undersigned is either not currently in possession of material non-public information concerning PubCo or its securities or will not be in possession of such material non-public information at the time the shares of Class A common stock are sold in any public sale and (viii) the undersigned has consulted with the undersigned's personal tax advisor regarding the tax consequences to the undersigned of this Election of Exchange and acknowledges that neither PubCo nor the Company is making any representations or warranties regarding the tax treatment of this Election of Exchange.

The undersigned hereby irrevocably constitutes and appoints any officer of PubCo, as applicable, as the attorney of the undersigned, with full power of substitution and resubstitution in the premises, solely to do any and all things and to take any and all actions necessary to effect the Exchange elected hereby.

IN WITNESS WHEREOF, the undersigned, by authority duly given, has caused this Election of Exchange to be executed and delivered by the undersigned or by its duly authorized attorney.

Name:

Dated:

Exhibit 10.8

[FORM OF STANDARD OPTION GRANT PACKAGE]

RANI THERAPEUTICS HOLDINGS, INC.

2021 EQUITY INCENTIVE PLAN

STOCK OPTION GRANT NOTICE

Rani Therapeutics Holdings, Inc. (the "***Company***"), pursuant to its 2021 Equity Incentive Plan (as may be amended and/or restated as of the Date of Grant set forth below, the "***Plan***"), has granted to Optionholder an option to purchase the number of shares of the Common Stock set forth below (the "***Option***"). The Option is subject to all of the terms and conditions as set forth in this Stock Option Grant Notice (the "***Grant Notice***") and in the Plan, the Option Agreement, and the Notice of Exercise, all of which are attached to this Grant Notice and incorporated into this Grant Notice in their entirety. Capitalized terms not explicitly defined in this Grant Notice but defined in the Plan or the Option Agreement shall have the meanings set forth in the Plan or the Option Agreement, as applicable. If the Company uses an electronic capitalization table system (such as Carta or Shareworks) and the fields below are blank or the information is otherwise provided in a different format electronically, the blank fields and other information (such as exercise schedule and type of grant) shall be deemed to come from the electronic capitalization system and is considered part of this Grant Notice.

Optionholder:	
Date of Grant:	
Vesting Commencement Date:	
Number of Shares Subject to Option:	
Exercise Price (Per Share):	
Total Exercise Price:	
Expiration Date:	
Exercise Schedule:	[Same as Vesting Schedule]
Type of Grant:	[Incentive Stock Option] [Nonstatutory Stock Option]

Vesting Schedule: [Twenty-five percent (25%) of the Shares subject to the Option will vest on the first anniversary of the Vesting Commencement Date, and one forty-eighth (1/48th) of the Shares subject to the Option will vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding day, on the last day of the month); provided, that no Shares shall vest after the date Optionholder's Continuous Service terminates for any reason.]

Optionholder Acknowledgements: By Optionholder's signature below or by electronic acceptance or authentication in a form authorized by the Company, Optionholder understands and agrees that the Option is governed by this Stock Option Grant Notice, and the provisions of the Plan and the Option Agreement and the Notice of Exercise, all of which are made a part of this document.

By accepting this Option, Optionholder consents to receive this Grant Notice, the Option Agreement, the Plan, and any other Plan-related documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company. Optionholder represents that he or she has read and is familiar with the provisions of the Plan and the Option Agreement. Optionholder acknowledges and agrees that this Grant Notice and the Option Agreement may not be modified, amended or revised except in writing signed by Optionholder and a duly authorized officer of the Company.

Optionholder further acknowledges that in the event of any conflict between the provisions in this Grant Notice, the Option Agreement, the Notice of Exercise and the terms of the Plan, the terms of the Plan shall control. Optionholder further acknowledges that the Option Agreement sets forth the entire understanding between Optionholder and the Company regarding the acquisition of Common Stock and supersedes all prior oral and written agreements, promises and/or representations on that subject with the exception of other equity awards previously granted to Optionholder and any written employment agreement, offer letter, severance agreement, written severance plan or policy, or other written agreement between the Company and Optionholder in each case that specifies the terms that should govern this Option.

Optionholder further acknowledges that this Grant Notice has been prepared on behalf of the Company by Cooley LLP, counsel to the Company and that Cooley LLP does not represent, and is not acting on behalf of, Optionholder in any capacity. Optionholder has been provided with an opportunity to consult with Optionholder's own counsel with respect to this Grant Notice.

This Grant Notice may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

Rani Therapeutics Holdings, Inc.		**Optionholder:**	
By:	_____	By:	_____
	(Signature)		(Signature)
Title:	_____	Email:	_____
Date:	_____	Date:	_____

Attachments: Option Agreement, 2021 Equity Incentive Plan and Notice of Exercise

ATTACHMENT I

OPTION AGREEMENT

RANI THERAPEUTICS HOLDINGS, INC.

2021 EQUITY INCENTIVE PLAN

OPTION AGREEMENT
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice ("***Grant Notice***") and this Option Agreement, **Rani Therapeutics Holdings, Inc.** (the "***Company***") has granted you an option under its 2021 Equity Incentive Plan (the "***Plan***") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. The option is granted to you effective as of the date of grant set forth in the Grant Notice (the "***Date of Grant***"). If there is any conflict between the terms in this Option Agreement and the Plan, the terms of the Plan will control. Capitalized terms not explicitly defined in this Option Agreement or in the Grant Notice but defined in the Plan will have the same definitions as in the Plan.

The details of your option, in addition to those set forth in the Grant Notice and the Plan, are as follows:

1. **Vesting**. Your option will vest as provided in your Grant Notice. Vesting will cease upon the termination of your Continuous Service.

2. **Number of Shares and Exercise Price**. The number of shares of Common Stock subject to your option and your exercise price per share in your Grant Notice will be adjusted for Capitalization Adjustments.

3. **Exercise Restriction for Non-Exempt Employees**. If you are an Employee eligible for overtime compensation under the Fair Labor Standards Act of 1938, as amended (that is, a "***Non-Exempt Employee***"), and except as otherwise provided in the Plan, you may not exercise your option until you have completed at least six months of Continuous Service measured from the Date of Grant, even if you have already been an employee for more than six months. Consistent with the provisions of the Worker Economic Opportunity Act, you may exercise your option as to any vested portion prior to such six month anniversary in the case of (i) your death or disability, (ii) a Corporate Transaction in which your option is not assumed, continued or substituted, (iii) a Change in Control or (iv) your termination of Continuous Service on your "retirement" (as defined in the Company's benefit plans).

4. **Exercise prior to Vesting ("Early Exercise")**. If permitted in your Grant Notice (*i.e.*, the "Exercise Schedule" indicates "Early Exercise Permitted") and subject to the provisions of your option, you may elect at any time that is both (i) during the period of your Continuous Service and (ii) during the term of your option, to exercise all or part of your option, including the unvested portion of your option; *provided, however,* that:

(a) a partial exercise of your option will be deemed to cover first vested shares of Common Stock and then the earliest vesting installment of unvested shares of Common Stock;

(b) any shares of Common Stock so purchased from installments that have not vested as of the date of exercise will be subject to the purchase option in favor of the Company as described in the Company's form of Early Exercise Stock Purchase Agreement;

(c) you will enter into the Company's form of Early Exercise Stock Purchase Agreement with a vesting schedule that will result in the same vesting as if no early exercise had occurred; and

(d) if your option is an Incentive Stock Option, then, to the extent that the aggregate Fair Market Value (determined at the Date of Grant) of the shares of Common Stock with respect to which your option plus all other Incentive Stock Options you hold are exercisable for the first time by you during any calendar year (under all plans of the Company and its Affiliates) exceeds $100,000, your option(s) or portions thereof that exceed such limit (according to the order in which they were granted) will be treated as Nonstatutory Stock Options.

5. **Method of Payment**. You must pay the full amount of the exercise price for the shares you wish to exercise. The permitted methods of payment are as follows:

(a) by cash, check, bank draft, electronic funds transfer or money order payable to the Company;

(b) subject to Company and/or Board consent at the time of exercise and provided that at the time of exercise the Common Stock is publicly traded, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds. This manner of payment is also known as a "broker-assisted exercise", "same day sale", or "sell to cover";

(c) subject to Company and/or Board consent at the time of exercise and provided that at the time of exercise the Common Stock is publicly traded, by delivery to the Company (either by actual delivery or attestation) of already-owned shares of Common Stock that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, will include delivery to the Company of your attestation of ownership of such shares of Common Stock in a form approved by the Company. You may not exercise your option by delivery to the Company of Common Stock if doing so would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock;

(d) subject to Company and/or Board consent at the time of exercise, and provided that the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issued upon exercise of the Option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price plus, to the extent permitted by the Company and/or Board at the time of exercise, the aggregate withholding obligations in respect of the Option exercise; provided, further that you must pay any remaining balance of the aggregate exercise price not satisfied by the "net exercise" in cash or other permitted form of payment. Shares of Common Stock will no longer be subject to the Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to you as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations;

(e) subject to the consent of the Company and/or Board at the time of exercise, according to a deferred payment or similar arrangement with you; provided, however, that interest will compound at least annually and will be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Optionholder under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

(f) in any other form of legal consideration that may be acceptable to the Board.

6. Whole Shares. You may exercise your option only for whole shares of Common Stock.

7. Securities Law Compliance. In no event may you exercise your option unless the shares of Common Stock issuable upon exercise are then registered under the Securities Act or, if not registered, the Company has determined that your exercise and the issuance of the shares would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with all other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations (including any restrictions on exercise required for compliance with Treas. Reg. 1.401(k)-1(d)(3), if applicable).

8. Term. You may not exercise your option before the Date of Grant or after the expiration of the option's term. Except as set forth in your Grant Notice, the term of your option expires, subject to the provisions of Section 5(h) of the Plan, upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) three months after the termination of your Continuous Service for any reason other than Cause, your Disability or your death (except as otherwise provided in Section 8(d) below); *provided, however,* that if

during any part of such three month period your option is not exercisable solely because of the condition set forth in the section above relating to "Securities Law Compliance," your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three months after the termination of your Continuous Service; *provided further,* that if (i) you are a Non-Exempt Employee, (ii) your Continuous Service terminates within six months after the Date of Grant, and (iii) you have vested in a portion of your option at the time of your termination of Continuous Service, your option will not expire until the earlier of (x) the later of (A) the date that is seven months after the Date of Grant, and (B) the date that is three months after the termination of your Continuous Service, and (y) the Expiration Date;

(c) 12 months after the termination of your Continuous Service due to your Disability (except as otherwise provided in Section 8(d)) below;

(d) 18 months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates for any reason other than Cause;

(e) the Expiration Date indicated in your Grant Notice; or

(f) the day before the 10th anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the Date of Grant and ending on the day three months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three months after the date your employment with the Company or an Affiliate terminates.

9. Exercise.

(a) You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by delivering a Notice of Exercise (in a form designated by the Company) together with the exercise price to the Secretary of the Company, or to such other person as the Company may designate, during regular business hours. If required by the Company, your exercise may be made contingent on your execution of any additional documents specified by the Company (including, without limitation, any voting agreement or other agreement between the Company and some or all of its stockholders).

(b) By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (i) the exercise of your option, (ii) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (iii) the disposition of shares of Common Stock acquired upon such exercise.

(c) If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within 15 days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two years after the Date of Grant or within one year after such shares of Common Stock are transferred upon exercise of your option.

(d) By exercising your option you agree that you will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company held by you, for a period of 180 days following the effective date of a registration statement of the Company filed under the Securities Act or such longer period as the underwriters or the Company will request to facilitate compliance with applicable FINRA rules (the "***Lock-Up Period***"); *provided, however*, that nothing contained in this section will prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock-Up Period. You further agree to

execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. You also agree that any transferee of any shares of Common Stock (or other securities) of the Company held by you will be bound by this Section 9(d). The underwriters of the Company's stock are intended third party beneficiaries of this Section 9(d) and will have the right, power and authority to enforce the provisions hereof as though they were a party hereto. You further agree that the obligations contained in this Section 9(d) shall also, if so determined by the Company's Board of Directors, apply if and when the Company's shares of Common Stock become publicly traded on a national securities exchange, including without limitation pursuant to the Company's initial listing of its Common Stock on a national securities exchange by means of a registration statement on Form S-1 under the Securities Act (or any successor registration form under the Securities Act subsequently adopted by the Securities and Exchange Commission) filed by the Company with the Securities and Exchange Commission that registers shares of existing capital stock of the Company for resale (a "***Direct Listing***"), provided that all holders of at least 5% of the Company's outstanding Common Stock (after giving effect to the conversion into Common Stock of any outstanding Preferred Stock of the Company) are subject to substantially similar obligations with respect to such Direct Listing.

10. Transferability. Except as otherwise provided in this Section 10, your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you.

(a) Certain Trusts. Upon receiving written permission from the Board or its duly authorized designee, you may transfer your option to a trust if you are considered to be the sole beneficial owner (determined under Section 671 of the Code and applicable state law) while the option is held in the trust. You and the trustee must enter into transfer and other agreements required by the Company.

(b) Domestic Relations Orders. Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other agreements required by the Company, you may transfer your option pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2) that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this option with the Company prior to finalizing the domestic relations order or marital settlement agreement to help ensure the required information is contained within the domestic relations order or marital settlement agreement. If this option is an Incentive Stock Option, this option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(c) Beneficiary Designation. Upon receiving written permission from the Board or its duly authorized designee, you may, by delivering written notice to the Company, in a form approved by the Company and any broker designated by the Company to handle option exercises, designate a third party who, on your death, will thereafter be entitled to exercise this option and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, your executor or administrator of your estate will be entitled to exercise this option and receive, on behalf of your estate, the Common Stock or other consideration resulting from such exercise.

11. Right of First Refusal. Shares of Common Stock that you acquire upon exercise of your option are subject to any right of first refusal that may be described in the Company's bylaws in effect at such time the Company elects to exercise its right; *provided, however,* that if there is no right of first refusal described in the Company's bylaws at such time, the right of first refusal described below will apply. The Company's right of first refusal will expire on the first date upon which any security of the Company is listed (or approved for listing) upon notice of issuance on a national securities exchange or quotation system (the "***Listing Date***").

(a) Prior to the Listing Date, you may not validly Transfer (as defined below) any shares of Common Stock acquired upon exercise of your option, or any interest in such shares, unless such Transfer is made in compliance with the following provisions:

(i) Before there can be a valid Transfer of any shares of Common Stock or any interest therein, the record holder of the shares of Common Stock to be transferred (the "***Offered Shares***") will give written notice (by registered or certified mail) to the Company. Such notice will specify the identity of the proposed transferee, the cash price offered for the Offered Shares by the proposed transferee (or, if the proposed Transfer is one in which the holder will not receive cash, such as an involuntary transfer, gift, donation or pledge, the holder will state that no purchase price is being proposed), and the other terms and conditions of the proposed Transfer. The date such notice is mailed will be hereinafter referred to as the "***Notice Date***" and the record holder of the Offered Shares will be hereinafter referred to as the "***Offeror***." If, from time to time, there is any stock dividend, stock split or other change in the character or amount of any of the outstanding Common Stock which is subject to the provisions of your option, then in such event any and all new, substituted or additional securities to which you are entitled by reason of your ownership of the shares of Common Stock acquired upon exercise of your option will be immediately subject to the Company's Right of First Refusal (as defined below) with the same force and effect as the shares subject to the Right of First Refusal immediately before such event.

(ii) For a period of 30 calendar days after the Notice Date, or such longer period as may be required to avoid the classification of your option as a liability for financial accounting purposes, the Company will have the option to purchase all (but not less than all) of the Offered Shares at the purchase price and on the terms set forth in Section 11(a)(iii) (the Company's "***Right of First Refusal***"). In the event that the proposed Transfer is one involving no payment of a purchase price, the purchase price will be deemed to be the Fair Market Value of the Offered Shares as determined in good faith by the Board in its discretion. The Company may exercise its Right of First Refusal by mailing (by registered or certified mail) written notice of exercise of its Right of First Refusal to the Offeror prior to the end of said 30 days (including any extension required to avoid classification of the option as a liability for financial accounting purposes).

(iii) The price at which the Company may purchase the Offered Shares pursuant to the exercise of its Right of First Refusal will be the cash price offered for the Offered Shares by the proposed transferee (as set forth in the notice required under Section 11(a)(i)), or the Fair Market Value as determined by the Board in the event no purchase price is involved. To the extent consideration other than cash is offered by the proposed transferee, the Company will not be required to pay any additional amounts to the Offeror other than the cash price offered (or the Fair Market Value, if applicable). The Company's notice of exercise of its Right of First Refusal will be accompanied by full payment for the Offered Shares and, upon such payment by the Company, the Company will acquire full right, title and interest to all of the Offered Shares.

(iv) If, and only if, the option given pursuant to Section 11(a)(ii) is not exercised, the Transfer proposed in the notice given pursuant to Section 11(a)(i) may take place; *provided, however*, that such Transfer must, in all respects, be exactly as proposed in said notice except that such Transfer may not take place either before the 10th calendar day after the expiration of the 30 day option exercise period or after the ninetieth 90th calendar day after the expiration of the 30 day option exercise period, and if such Transfer has not taken place prior to said 90th day, such Transfer may not take place without once again complying with this Section 11(a). The option exercise periods in this Section 11(a)(iv) will be adjusted to include any extension required to avoid the classification of your option as a liability for financial accounting purposes.

(b) As used in this Section 11, the term "***Transfer***" means any sale, encumbrance, pledge, gift or other form of disposition or transfer of shares of Common Stock or any legal or equitable interest therein; *provided, however*, that the term Transfer does not include a transfer of such shares or interests by will or intestacy to your Immediate Family (as defined below). In such case, the transferee or other recipient will receive and hold the shares of Common Stock so transferred subject to the provisions of this Section, and there will be no further transfer of such shares except in accordance with the terms of this Section 11. As used herein, the term "***Immediate Family***" will mean your spouse, the lineal descendant or antecedent, father, mother, brother or sister, child, adopted child, grandchild or adopted grandchild of you or your spouse, or the spouse of any child, adopted child, grandchild or adopted grandchild of you or your spouse.

(c) None of the shares of Common Stock purchased on exercise of your option will be transferred on the Company's books nor will the Company recognize any such Transfer of any such shares or any interest therein unless and until all applicable provisions of this Section 11 have been complied with in all respects. The certificates

of stock evidencing shares of Common Stock purchased on exercise of your option will bear an appropriate legend referring to the transfer restrictions imposed by this Section 11.

(d) To ensure that the shares subject to the Company's Right of First Refusal will be available for repurchase by the Company, the Company may require you to deposit the certificates evidencing the shares that you purchase upon exercise of your option with an escrow agent designated by the Company under the terms and conditions of an escrow agreement approved by the Company. If the Company does not require such deposit as a condition of exercise of your option, the Company reserves the right at any time to require you to so deposit the certificates in escrow. As soon as practicable after the expiration of the Company's Right of First Refusal, the agent will deliver to you the shares and any other property no longer subject to such restriction. In the event the shares and any other property held in escrow are subject to the Company's exercise of its Right of First Refusal, the notices required to be given to you will be given to the escrow agent, and any payment required to be given to you will be given to the escrow agent. Within 30 days after payment by the Company for the Offered Shares, the escrow agent will deliver the Offered Shares that the Company has repurchased to the Company and will deliver the payment received from the Company to you.

12. Option not a Service Contract. Your option is not an employment or service contract, and nothing in your option will be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option will obligate the Company or an Affiliate, their respective stockholders, boards of directors, officers or employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

13. Withholding Obligations.

(a) At the time you exercise your option, in whole or in part, and at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a "same day sale" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

(b) If this option is a Nonstatutory Stock Option, then upon your request and subject to approval by the Company, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid classification of your option as a liability for financial accounting purposes). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence will not be permitted unless you make a proper and timely election under Section 83(b) of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock will be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure will be your sole responsibility.

(c) You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company will have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein, if applicable, unless such obligations are satisfied.

14. Tax Consequences. You hereby agree that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes your tax liabilities. You will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from

your option or your other compensation. In particular, you acknowledge that this option is exempt from Section 409A of the Code only if the exercise price per share specified in the Grant Notice is at least equal to the "fair market value" per share of the Common Stock on the Date of Grant and there is no other impermissible deferral of compensation associated with the option. Because the Common Stock is not traded on an established securities market, the Fair Market Value is determined by the Board, perhaps in consultation with an independent valuation firm retained by the Company. You acknowledge that there is no guarantee that the Internal Revenue Service will agree with the valuation as determined by the Board, and you will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that the valuation determined by the Board is less than the "fair market value" as subsequently determined by the Internal Revenue Service.

15. Notices. Any notices provided for in your option or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

16. Governing Plan Document. Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. If there is any conflict between the provisions of your option and those of the Plan, the provisions of the Plan will control.

ATTACHMENT II

2021 Equity Incentive Plan

ATTACHMENT III

NOTICE OF EXERCISE

RANI THERAPEUTICS HOLDINGS, INC.
NOTICE OF EXERCISE

This constitutes notice to **Rani Therapeutics Holdings, Inc.** (the "***Company***") under my stock option that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") for the price set forth below. Use of certain payment methods is subject to Company and/or Board consent and certain additional requirements set forth in the Option Agreement and the Plan. If the Company uses an electronic capitalization table system (such as Carta or Shareworks) and the fields below are blank, the blank fields shall be deemed to come from the electronic capitalization system and is considered part of this Notice of Exercise.

Option Information

Type of option (check one):	Incentive ☐ Nonstatutory ☐
Stock option dated:	
Number of Shares as to which option is exercised:	
Certificates to be issued in name of:	

Exercise Information

Date of Exercise:	
Total exercise price:	
Cash:	
Regulation T Program (cashless exercise):	
Value of _____ Shares delivered with this notice:	
Value of _____ Shares pursuant to net exercise:	

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the Rani Therapeutics Holdings, Inc. 2021 Equity Incentive Plan, (ii) to provide for the payment by me to you (in the manner designated by you) of your withholding obligation, if any, relating to the exercise of this option, and (iii) if this exercise relates to an incentive stock option, to notify you in writing within 15 days after the date of any disposition of any of the Shares issued upon exercise of this option that occurs within two years after the date of grant of this option or within one year after such Shares are issued upon exercise of this option. I further agree that this Notice of Exercise may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

I hereby make the following certifications and representations with respect to the number of Shares listed above, which are being acquired by me for my own account upon exercise of the option as set forth above:

I acknowledge that the Shares have not been registered under the Securities Act of 1933, as amended (the "***Securities Act***"), and are deemed to constitute "restricted securities" under Rule 701 and Rule 144 promulgated under the Securities Act. I warrant and represent to the Company that I have no present intention of distributing or selling said Shares, except as permitted under the Securities Act and any applicable state securities laws.

I further acknowledge and agree that, except for such information as required to be delivered to me by the Company pursuant to the option or the Plan (if any), I will have no right to receive any information from the Company by virtue of the grant of the option or the purchase of shares of Common Stock through exercise of the option, ownership of such shares of Common Stock, or as a result of my being a holder of record of stock of the Company. Without limiting the foregoing, to the fullest extent permitted by law, I hereby waive all inspection rights under Section 220 of the Delaware General Corporation Law and all such similar information and/or inspection rights that may be provided under the law of any jurisdiction, or any federal, state or foreign regulation, that are, or may become, applicable to the Company or the Company's capital stock (the "***Inspection Rights***"). I hereby covenant and agree

never to directly or indirectly commence, voluntarily aid in any way, prosecute, assign, transfer, or cause to be commenced any claim, action, cause of action, or other proceeding to pursue or exercise the Inspection Rights.

I further acknowledge that I will not be able to resell the Shares for at least 90 days after the stock of the Company becomes publicly traded (*i.e.,* subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934) under Rule 701 and that more restrictive conditions apply to affiliates of the Company under Rule 144.

I further acknowledge that all certificates representing any of the Shares subject to the provisions of the option will have endorsed thereon appropriate legends reflecting the foregoing limitations, as well as any legends reflecting restrictions pursuant to the Company's Certificate of Incorporation, Bylaws and/or applicable securities laws.

I further agree that, if required by the Company (or a representative of the underwriters) in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, I will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company for a period of 180 days following the effective date of a registration statement of the Company filed under the Securities Act (or such longer period as the underwriters or the Company will request to facilitate compliance with applicable FINRA rules) (the "***Lock-Up Period***"). I further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such period. I further agree that the obligations contained in this paragraph shall also, if so determined by the Company's Board of Directors, apply if and when the Company's shares of Common Stock become publicly traded on a national securities exchange, including without limitation pursuant to the Company's initial listing of its Common Stock on a national securities exchange by means of a registration statement on Form S-1 under the Securities Act (or any successor registration form under the Securities Act subsequently adopted by the Securities and Exchange Commission) filed by the Company with the Securities and Exchange Commission that registers shares of existing capital stock of the Company for resale (a "***Direct Listing***"), provided that all holders of at least 5% of the Company's outstanding Common Stock (after giving effect to the conversion into Common Stock of any outstanding Preferred Stock of the Company) are subject to substantially similar obligations with respect to such Direct Listing.

Very truly yours,

_____
(Signature)

_____
Name (Please Print)

Address of Record: _____

_____

Email: _____

[FORM OF NON-EMPLOYEE DIRECTOR OPTION GRANT PACKAGE]

RANI THERAPEUTICS HOLDINGS, INC.

2021 EQUITY INCENTIVE PLAN

STOCK OPTION GRANT NOTICE

Rani Therapeutics Holdings, Inc. (the "***Company***"), pursuant to the Company's 2021 Equity Incentive Plan (the "***Plan***"), has granted to you ("***Optionholder***") an option to purchase the number of shares of the Common Stock set forth below (the "***Option***"). Your Option is subject to all of the terms and conditions as set forth herein and in the Plan, and the Stock Option Agreement and the Notice of Exercise, all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Stock Option Agreement shall have the meanings set forth in the Plan or the Stock Option Agreement, as applicable.

Optionholder:	_____
Date of Grant:	_____
Number of Shares of Common Stock Subject to Option:	_____
Exercise Price (Per Share):	_____
Total Exercise Price:	_____
Expiration Date:	_____

Type of Grant:	Nonstatutory Stock Option
Exercise and Vesting Schedule:	Subject to the Optionholder's Continuous Service through each applicable vesting date, the Option will vest as follows, subject to the potential vesting acceleration described in Section 2 of the Stock Option Agreement: [*Initial Grant*][One-third (1/3rd) of the shares subject to the Option shall vest and become exercisable on the first (1st) anniversary of the Date of Grant and one thirty-sixth (1/36th) of the shares subject to the Option shall vest and become exercisable each month thereafter on the same day of the month as the Date of Grant (and if there is no corresponding day, on the last day of the month), such that the Option shall be fully vested and exercisable on the third (3rd) anniversary of the Date of Grant.] [*Annual Grant*][The shares subject to the Option shall vest and become exercisable upon the earlier to occur of (i) the first (1st) anniversary of the Date of Grant and (ii) the date of the next annual meeting of the stockholders of the Company.]

Optionholder Acknowledgements: By your signature below or by electronic acceptance or authentication in a form authorized by the Company, you understand and agree that:

- The Option is governed by this Stock Option Grant Notice, and the provisions of the Plan and the Stock Option Agreement and the Notice of Exercise, all of which are made a part of this document. Unless otherwise provided in the Plan, this Grant Notice and the Stock Option Agreement (together, the "***Option Agreement***") may not be modified, amended or revised except in a writing signed by you and a duly authorized officer of the Company.

- You consent to receive this Grant Notice, the Stock Option Agreement, the Plan, the Prospectus and any other Plan-related documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

- You have read and are familiar with the provisions of the Plan, the Stock Option Agreement, the Notice of Exercise and the Prospectus. In the event of any conflict between the provisions in this Grant Notice, the Option Agreement, the Notice of Exercise, or the Prospectus and the terms of the Plan, the terms of the Plan shall control.

- The Option Agreement sets forth the entire understanding between you and the Company regarding the acquisition of Common Stock and supersedes all prior oral and written agreements, promises and/or representations on that subject with the exception of other equity awards previously granted to you and any written employment agreement, offer letter, severance agreement, written severance plan or policy, or other written agreement between the Company and you in each case that specifies the terms that should govern this Option.

- Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

Rani Therapeutics Holdings, Inc.		**Optionholder:**	
By:	Signature	By:	Signature
Title:		Date:	
Date:			

Attachments: Option Agreement, 2021 Equity Incentive Plan, Notice of Exercise

ATTACHMENT I

OPTION AGREEMENT

RANI THERAPEUTICS HOLDINGS, INC.

2021 EQUITY INCENTIVE PLAN

OPTION AGREEMENT
(NONSTATUTORY STOCK OPTION)

As reflected by your Stock Option Grant Notice ("***Grant Notice***"), Rani Therapeutics Holdings, Inc. (the "***Company***") has granted you an option under its 2021 Equity Incentive Plan (the "***Plan***") to purchase a number of shares of Common Stock at the exercise price indicated in your Grant Notice (the "***Option***"). Capitalized terms not explicitly defined in this Agreement but defined in the Grant Notice or the Plan shall have the meanings set forth in the Grant Notice or Plan, as applicable. The terms of your Option as specified in the Grant Notice and this Stock Option Agreement constitute your Option Agreement.

The general terms and conditions applicable to your Option are as follows:

1. **Governing Plan Document**. Your Option is subject to all the provisions of the Plan, including but not limited to the provisions in:

(a) Section 6 regarding the impact of a Capitalization Adjustment, dissolution, liquidation, or Corporate Transaction on your Option;

(b) Section 9(e) regarding the Company's retained rights to terminate your Continuous Service notwithstanding the grant of the Option; and

(c) Section 8 regarding the tax consequences of your Option.

Your Option is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the Option Agreement and the provisions of the Plan, the provisions of the Plan shall control.

2. **Vesting.**

(a) Your Option will vest as provided in your Grant Notice, subject to the provisions contained herein and the terms of the Plan. Vesting will cease upon the termination of your Continuous Service. Notwithstanding the foregoing, if a Change in Control occurs and your Continuous Service has not terminated as of immediately prior to such Change in Control, then the vesting and exercisability of your Option will be accelerated in full upon such Change in Control.

(b) If any payment or benefit you would receive from the Company or otherwise in connection with a Change in Control or other similar transaction (a "***280G Payment***") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "***Excise Tax***"), then any such 280G Payment (a "***Payment***") shall be equal to the Reduced Amount. The "***Reduced Amount***" shall be either (x) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (y) the largest portion, up to and including the total, of the Payment, whichever amount (i.e., the amount determined by clause (x) or by clause (y)), after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate), results in your receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (x) of the preceding sentence, the reduction shall occur in the manner (the "***Reduction Method***") that results in the greatest economic benefit for you. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "***Pro Rata Reduction Method***").

Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A of the Code that would not otherwise be

subject to taxes pursuant to Section 409A of the Code, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A of the Code as follows: (A) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for you as determined on an after-tax basis; (B) as a second priority, Payments that are contingent on future events (e.g., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (C) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A of the Code shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A of the Code.

Unless you and the Company agree on an alternative accounting firm, the accounting firm engaged by the Company for general tax compliance purposes as of the day prior to the effective date of the change of control transaction triggering the Payment shall perform the foregoing calculations. If the accounting firm so engaged by the Company is serving as accountant or auditor for the individual, entity or group effecting the change of control transaction, the Company shall appoint a nationally recognized accounting firm to make the determinations required hereunder. The Company shall bear all expenses with respect to the determinations by such accounting firm required to be made hereunder. The Company shall use commercially reasonable efforts to cause the accounting firm engaged to make the determinations hereunder to provide its calculations, together with detailed supporting documentation, to you and the Company within fifteen (15) calendar days after the date on which your right to a 280G Payment becomes reasonably likely to occur (if requested at that time by you or the Company) or such other time as requested by you or the Company.

If you receive a Payment for which the Reduced Amount was determined pursuant to clause (x) of the first paragraph of this Section 2(b) and the Internal Revenue Service determines thereafter that some portion of the Payment is subject to the Excise Tax, you shall promptly return to the Company a sufficient amount of the Payment (after reduction pursuant to clause (x) of the first paragraph of this Section 2(b)) so that no portion of the remaining Payment is subject to the Excise Tax. For the avoidance of doubt, if the Reduced Amount was determined pursuant to clause (y) in the first paragraph of this Section 2(b), you shall have no obligation to return any portion of the Payment pursuant to the preceding sentence.

3. **EXERCISE**.

(a) You may generally exercise the vested portion of your Option for whole shares of Common Stock at any time during its term by delivery of payment of the exercise price and applicable withholding taxes and other required documentation to the Plan Administrator in accordance with the exercise procedures established by the Plan Administrator, which may include an electronic submission. Please review Sections 4(i), 4(j) and 7(b)(v) of the Plan, which may restrict or prohibit your ability to exercise your Option during certain periods.

(b) To the extent permitted by Applicable Law, you may pay your Option exercise price as follows:

(i) cash, check, bank draft or money order;

(ii) subject to Company and/or Committee consent at the time of exercise, pursuant to a "cashless exercise" program as further described in Section 4(c)(ii) of the Plan if at the time of exercise the Common Stock is publicly traded;

(iii) subject to Company and/or Committee consent at the time of exercise, by delivery of previously owned shares of Common Stock as further described in Section 4(c)(iii) of the Plan; or

(iv) subject to Company and/or Committee consent at the time of exercise, if the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement as further described in Section 4(c)(iv) of the Plan.

4. **TERM**. You may not exercise your Option before the commencement of its term or after its term expires. The term of your Option commences on the Date of Grant and expires upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) 12 months after the termination of your Continuous Service;

(c) immediately upon a Corporate Transaction if the Board has determined that the Option will terminate in connection with a Corporate Transaction,

(d) the Expiration Date indicated in your Grant Notice; or

(e) the day before the 10th anniversary of the Date of Grant.

Notwithstanding the foregoing, if you die during the period provided in Section 4(b) above, the term of your Option shall not expire until the earlier of (i) 12 months after your death, (ii) upon any termination of the Option in connection with a Corporate Transaction, (iii) the Expiration Date indicated in your Grant Notice, or (iv) the day before the tenth anniversary of the Date of Grant. Additionally, the Post-Termination Exercise Period of your Option may be extended as provided in Section 4(i) of the Plan.

5. **Withholding Obligations**. As further provided in Section 8 of the Plan: (a) you may not exercise your Option unless the applicable tax withholding obligations are satisfied, and (b) at the time you exercise your Option, in whole or in part, or at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a "cashless exercise" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations, if any, which arise in connection with the exercise of your Option in accordance with the withholding procedures established by the Company. Accordingly, you may not be able to exercise your Option even though the Option is vested, and the Company shall have no obligation to issue shares of Common Stock subject to your Option, unless and until such obligations are satisfied. In the event that the amount of the Company's withholding obligation in connection with your Option was greater than the amount actually withheld by the Company, you agree to indemnify and hold the Company harmless from any failure by the Company to withhold the proper amount.

6. **Transferability**. Except as otherwise provided in Section 4(e) of the Plan, your Option is not transferable, except by will or by the applicable laws of descent and distribution, and is exercisable during your life only by you.

7. **Corporate Transaction**. Your Option is subject to the terms of any agreement governing a Corporate Transaction involving the Company, including, without limitation, a provision for the appointment of a stockholder representative that is authorized to act on your behalf with respect to any escrow, indemnities and any contingent consideration.

8. **No Liability For Taxes**. As a condition to accepting the Option, you hereby (a) agree to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from the Option or other Company compensation and (b) acknowledge that you were advised to consult with your own personal tax, financial and other legal advisors regarding the tax consequences of the Option and have either done so or knowingly and voluntarily declined to do so. Additionally, you acknowledge that the Option is exempt from Section 409A only if the exercise price is at least equal to the "fair market value" of the Common Stock on the date of grant as determined by the Internal Revenue Service and there is no other impermissible deferral of compensation associated with the Option. Additionally, as a condition to accepting the Option, you agree not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates in the event that the Internal Revenue Service asserts that such exercise is less than the "fair market value" of the Common Stock on the date of grant as subsequently determined by the Internal Revenue Service.

9. **Severability**. If any part of this Option Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Option Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Option Agreement (or part of such

a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

10. **Other Documents**. You hereby acknowledge receipt of or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Prospectus. In addition, you acknowledge receipt of the Company's Trading Policy.

11. **Questions**. If you have questions regarding these or any other terms and conditions applicable to your Option, including a summary of the applicable federal income tax consequences please see the Prospectus.

* * * *

ATTACHMENT II

2021 EQUITY INCENTIVE PLAN

ATTACHMENT III

NOTICE OF EXERCISE

RANI THERAPEUTICS HOLDINGS, INC.
2021 EQUITY INCENTIVE PLAN

NOTICE OF EXERCISE

RANI THERAPEUTICS HOLDINGS, INC.
2051 RINGWOOD AVENUE
SAN JOSE, CA 95131

Date of Exercise: _____

This constitutes notice to Rani Therapeutics Holdings, Inc. (the "***Company***") that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") by exercising my Option for the price set forth below. Capitalized terms not explicitly defined in this Notice of Exercise but defined in the Stock Option Grant Notice, Stock Option Agreement or 2021 Equity Incentive Plan (the "***Plan***") shall have the meanings set forth in the Stock Option Grant Notice, Stock Option Agreement or Plan, as applicable. Use of certain payment methods is subject to Company and/or Committee consent and certain additional requirements set forth in the Stock Option Agreement and the Plan.

Type of option: Nonstatutory

Date of Grant:

Number of Shares as to which Option is exercised:

Certificates to be issued in name of:

Total exercise price: $_____

Cash, check, bank draft or money order delivered herewith: $_____

Value of _____ Shares delivered herewith: $_____

Regulation T Program (cashless exercise) $_____

Value of _____ Shares pursuant to net exercise: $_____

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the Plan and (ii) to satisfy the tax withholding obligations, if any, relating to the exercise of this Option as set forth in the Stock Option Agreement.

Very truly yours,

_____

[FORM OF RESTRICTED STOCK UNIT GRANT PACKAGE]

RANI THERAPEUTICS HOLDINGS, INC.

2021 EQUITY INCENTIVE PLAN

RESTRICTED STOCK UNIT GRANT NOTICE

Rani Therapeutics Holdings, Inc. (the "***Company***") has awarded to you (the "***Participant***") the number of restricted stock units specified and on the terms set forth below in consideration of your services (the "***RSU Award***"). Your RSU Award is subject to all of the terms and conditions as set forth herein and in the Company's 2021 Equity Incentive Plan (the "***Plan***") and the Award Agreement (the "***Agreement***"), which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Agreement shall have the meanings set forth in the Plan or the Agreement.

Participant:	_____
Date of Grant:	_____
Vesting Commencement Date:	_____
Number of Restricted Stock Units:	_____

Vesting Schedule: [_____]. Notwithstanding the foregoing, vesting shall terminate upon the Participant's termination of Continuous Service.

Issuance Schedule: One share of Common Stock will be issued for each restricted stock unit which vests at the time set forth in Section 5 of the Agreement.

Participant Acknowledgements: By your signature below or by electronic acceptance or authentication in a form authorized by the Company, you understand and agree that:

- The RSU Award is governed by this RSU Award Grant Notice (the "***Grant Notice***"), and the provisions of the Plan and the Agreement, all of which are made a part of this document. Unless otherwise provided in the Plan, this Grant Notice and the Agreement (together, the "***RSU Award Agreement***") may not be modified, amended or revised except in a writing signed by you and a duly authorized officer of the Company.
- You have read and are familiar with the provisions of the Plan, the RSU Award Agreement and the Prospectus. In the event of any conflict between the provisions in the RSU Award Agreement, or the Prospectus and the terms of the Plan, the terms of the Plan shall control.
- The RSU Award Agreement sets forth the entire understanding between you and the Company regarding the acquisition of Common Stock and supersedes all prior oral and written agreements, promises and/or representations on that subject with the exception of: (i) other equity awards previously granted to you, and (ii) any written employment agreement, offer letter, severance agreement, written severance plan or policy, or other written agreement between the Company and you in each case that specifies the terms that should govern this RSU Award.

RANI THERAPEUTICS HOLDINGS, INC.

By: _____
Signature

Title: _____

Date: _____

PARTICIPANT:

_____
Signature

Date: _____

ATTACHMENTS: RSU Award Agreement, 2021 Equity Incentive Plan

RANI THERAPEUTICS HOLDINGS, INC.

2021 EQUITY INCENTIVE PLAN

RSU AWARD AGREEMENT

As reflected by your Restricted Stock Unit Grant Notice ("***Grant Notice***"), Rani Therapeutics Holdings, Inc. (the "***Company***") has granted you an RSU Award under the Company's 2021 Equity Incentive Plan (the "***Plan***") for the number of restricted stock units as indicated in your Grant Notice (the "***RSU Award***"). The terms of your RSU Award as specified in this Award Agreement for your RSU Award (the "***Agreement***") and the Grant Notice constitute your "***RSU Award Agreement***". Defined terms not explicitly defined in this Agreement but defined in the Grant Notice or the Plan shall have the same definitions as in the Grant Notice or Plan, as applicable.

The general terms applicable to your RSU Award are as follows:

1. Governing Plan Document. Your RSU Award is subject to all the provisions of the Plan, including but not limited to the provisions in:

(a) Section 6 of the Plan regarding the impact of a Capitalization Adjustment, dissolution, liquidation, or Corporate Transaction on your RSU Award;

(b) Section 9(e) of the Plan regarding the Company's retained rights to terminate your Continuous Service notwithstanding the grant of the RSU Award; and

(c) Section 8(c) of the Plan regarding the tax consequences of your RSU Award.

Your RSU Award is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the RSU Award Agreement and the provisions of the Plan, the provisions of the Plan shall control.

18. Grant of the RSU Award. This RSU Award represents your right to be issued on a future date the number of shares of the Company's Common Stock that is equal to the number of restricted stock units indicated in the Grant Notice as modified to reflect any Capitalization Adjustment and subject to your satisfaction of the vesting conditions set forth therein (the "***Restricted Stock Units***"). Any additional Restricted Stock Units that become subject to the RSU Award pursuant to Capitalization Adjustments as set forth in the Plan and the provisions of Section 3 below, if any, shall be subject, in a manner determined by the Board, to the same forfeiture restrictions, restrictions on transferability, and time and manner of delivery as applicable to the other Restricted Stock Units covered by your RSU Award.

19. Dividends. You shall receive no benefit or adjustment to your RSU Award with respect to any cash dividend, stock dividend or other distribution that does not result from a Capitalization Adjustment as provided in the Plan; provided, however, that this sentence shall not apply with respect to any shares of Common Stock that are delivered to you in connection with your RSU Award after such shares have been delivered to you.

20. Withholding Obligations. As further provided in Section 8 of the Plan, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for, any sums required to satisfy the federal, state, local and foreign tax withholding obligations, if any, which arise in connection with your RSU Award (the "***Withholding Obligation***") in accordance with the withholding procedures established by the Company. Unless the Withholding Obligation is satisfied, the Company shall have no obligation to deliver to you any Common Stock in respect of the RSU Award. In the event the Withholding Obligation of the Company arises prior to the delivery to you of Common Stock or it is determined after the delivery of Common Stock to you that the amount of the Withholding Obligation was greater than the amount withheld by the Company, you agree to indemnify and hold the Company harmless from any failure by the Company to withhold the proper amount.

21. Date of Issuance.

(a) The issuance of shares in respect of the Restricted Stock Units is intended to comply with Treasury Regulations Section 1.409A-1(b)(4) and will be construed and administered in such a manner. Subject to the satisfaction of the Withholding Obligation, if any, in the event one or more Restricted Stock Units vests, the Company shall issue to you one (1) share of Common Stock for each Restricted Stock Unit that vests on the applicable vesting date(s) (subject to any adjustment under Section 3 above, and subject to any different provisions in the Grant Notice). Each issuance date determined by this paragraph is referred to as an "***Original Issuance Date***."

(b) If the Original Issuance Date falls on a date that is not a business day, delivery shall instead occur on the next following business day. In addition, if:

(i) the Original Issuance Date does not occur (1) during an "open window period" applicable to you, as determined by the Company in accordance with the Company's then-effective policy on trading in Company securities, or (2) on a date when you are otherwise permitted to sell shares of Common Stock on an established stock exchange or stock market (including but not limited to under a previously established written trading plan that meets the requirements of Rule 10b5-1 under the Exchange Act and was entered into in compliance with the Company's policies (a "***10b5-1 Arrangement***")), *and*

(ii) either (1) a Withholding Obligation does not apply, or (2) the Company decides, prior to the Original Issuance Date, (A) not to satisfy the Withholding Obligation by withholding shares of Common Stock from the shares otherwise due, on the Original Issuance Date, to you under this Award, and (B) not to permit you to enter into a "same day sale" commitment with a broker-dealer (including but not limited to a commitment under a 10b5-1 Arrangement) and (C) not to permit you to pay your Withholding Obligation in cash,

then the shares that would otherwise be issued to you on the Original Issuance Date will not be delivered on such Original Issuance Date and will instead be delivered on the first business day when you are not prohibited from selling shares of the Company's Common Stock in the open public market, but in no event later than December 31 of the calendar year in which the Original Issuance Date occurs (that is, the last day of your taxable year in which the Original Issuance Date occurs), or, if and only if permitted in a manner that complies with Treasury Regulations Section 1.409A-1(b)(4), no later than the date that is the 15th day of the third calendar month of the applicable year following the year in which the shares of Common Stock under this Award are no longer subject to a "substantial risk of forfeiture" within the meaning of Treasury Regulations Section 1.409A-1(d).

(c) To the extent the RSU Award is a Non-Exempt RSU Award, the provisions of Section 11 of the Plan shall apply.

22. Transferability. Except as otherwise provided in the Plan, your RSU Award is not transferable, except by will or by the applicable laws of descent and distribution.

23. Corporate Transaction. Your RSU Award is subject to the terms of any agreement governing a Corporate Transaction involving the Company, including, without limitation, a provision for the appointment of a stockholder representative that is authorized to act on your behalf with respect to any escrow, indemnities and any contingent consideration.

24. No Liability for Taxes. As a condition to accepting the RSU Award, you hereby (a) agree to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from the RSU Award or other Company compensation and (b) acknowledge that you were advised to consult with your own personal tax, financial and other legal advisors regarding the tax consequences of the RSU Award and have either done so or knowingly and voluntarily declined to do so.

25. Severability. If any part of this Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Agreement (or part of such a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

26. Other Documents. You hereby acknowledge receipt of or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Prospectus. In addition, you acknowledge receipt of the Company's Trading Policy.

27. Questions. If you have questions regarding these or any other terms and conditions applicable to your RSU Award, including a summary of the applicable federal income tax consequences please see the Prospectus.

[FORM OF RESTRICTED STOCK GRANT PACKAGE]

RANI THERAPEUTICS HOLDINGS, INC

2021 EQUITY INCENTIVE PLAN

RESTRICTED STOCK GRANT NOTICE

Rani Therapeutics Holdings, Inc. (the "***Company***"), pursuant to its 2021 Equity Incentive Plan (the "***Plan***"), hereby awards to Participant the number of shares of the Company's Common Stock set forth below ("***Award***"). This Award is subject to all of the terms and conditions as set forth herein and in the Restricted Stock Agreement, the Plan, the form of Assignment Separate from Certificate and the form of Joint Escrow Instructions, all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Restricted Stock Agreement shall have the meanings set forth in the Plan or the Restricted Stock Agreement, as applicable.

Participant:	_____
Date of Grant:	_____
Vesting Commencement Date:	_____
Number of Shares Subject to Award:	_____

Vesting Schedule: [Twenty-five percent (25%) of the shares of Common Stock subject to this Award shall vest on the first anniversary of the Vesting Commencement Date, and one thirty-sixth (1/36th) of the shares of Common Stock subject to this Award shall vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding day, on the last day of the month); provided that no shares of Common Stock shall vest after the date Participant's Continuous Service terminates for any reason (whether voluntarily or involuntarily, including by reason of death or disability, and whether for cause or without cause). In the event of a Change in Control, 100% of the shares of Common Stock subject to this Award shall vest concurrently with the effectiveness of such Change in Control.]

Participant Acknowledgements: By your signature below or by electronic acceptance or authentication in a form authorized by the Company, you understand and agree that:

- The Award is governed by the provisions of the Plan and this Restricted Stock Grant Notice and the Restricted Stock Agreement and other attachments to this Restricted Stock Grant Notice, all of which are made a part of this document (together, the "***Award Agreement***"). Unless otherwise provided in the Plan, this Award Agreement may not be modified, amended or revised except in a writing signed by you and a duly authorized officer of the Company.
- You consent to receive this Award Agreement, the Prospectus and any other Plan-related documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.
- You have read and are familiar with the provisions of the Plan, the Award Agreement and the Prospectus. In the event of any conflict between the provisions in this Award Agreement or the Prospectus and the terms of the Plan, the terms of the Plan shall control.
- The Plan and this Award Agreement sets forth the entire understanding between you and the Company regarding the acquisition of Common Stock and supersedes all prior oral and written agreements, promises and/or representations on that subject with the exception of other equity awards previously granted to you and any written employment agreement, offer letter, severance agreement, written severance plan or policy, or other written agreement between the Company and you in each case that specifies the terms that should govern this Award.

- Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, Uniform Electronic Transactions Act or other applicable law) or other transmission method and any counterpart so delivered will be deemed to have been duly and validly delivered and be valid and effective for all purposes.

RANI THERAPEUTICS HOLDINGS, INC.		**PARTICIPANT:**	
By:	_____		_____
	Signature		Signature
Title:	_____	Date:	_____
Date:	_____		

ATTACHMENTS: Restricted Stock Agreement, 2021 Equity Incentive Plan, form of Assignment Separate from Certificate and form of Joint Escrow Instructions

ATTACHMENT I

RESTRICTED STOCK AGREEMENT

RANI THERAPEUTICS HOLDINGS, INC
2021 EQUITY INCENTIVE PLAN

RESTRICTED STOCK AGREEMENT

Pursuant to the Restricted Stock Grant Notice ("***Grant Notice***") and this Restricted Stock Agreement (collectively, the "***Award***") and in consideration of your past services, Rani Therapeutics Holdings, Inc. (the "***Company***") has granted you a Restricted Stock Award under its 2021 Equity Incentive Plan (the "***Plan***") for the number of shares of Common Stock subject to the Award as indicated in the Grant Notice. Capitalized terms not explicitly defined in this Restricted Stock Agreement but defined in the Grant Notice or the Plan shall have the meanings set forth in the Grant Notice or Plan, as applicable. The terms of your Restricted Stock Award as specified in the Grant Notice and this Restricted Stock Agreement, including attachments thereto, constitute your Award Agreement.

The general terms and conditions applicable to your Award are as follows:

1. GOVERNING PLAN DOCUMENT. Your Award is subject to all the provisions of the Plan, including but not limited to the provisions in:

(a) Section 6 regarding the impact of a Capitalization Adjustment, dissolution, liquidation, or Corporate Transaction on your Award;

(b) Section 9(e) regarding the Company's retained rights to terminate your Continuous Service notwithstanding the grant of the Award; and

(c) Section 8 regarding the tax consequences of your Award.

Your Award is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. In the event of any conflict between the Award Agreement and the provisions of the Plan, the provisions of the Plan shall control.

28. VESTING. Subject to the limitations contained herein, your Award will vest as provided in the Grant Notice, provided that vesting will cease upon the termination of your Continuous Service.

29. DIVIDENDS. You may become entitled to receive payments equal to any cash dividends and other distributions paid with respect to a corresponding number of shares of Common Stock covered by your Award. Any such dividends or distributions shall be subject to the same forfeiture restrictions (including the Reacquisition Right defined in Section 5 below) and restrictions on transferability as apply to the shares covered by your Award with respect to which the dividends or other distributions relate and accordingly, shall be paid at the same time that the corresponding shares are released from the Reacquisition Right or other restriction in respect of your vested Award. To the extent any such dividends or distributions are paid in shares of Common Stock, then you will automatically be granted a corresponding number of additional shares of Common Stock subject to the Award (the "***Dividend Shares***"), and further provided that such Dividend Shares shall be subject to the same forfeiture restrictions and restrictions on transferability, and same timing requirements for release of such restrictions/vesting, as apply to the shares subject to the Award with respect to which the Dividend Shares relate.

30. SECURITIES LAW COMPLIANCE. You may not be issued any shares under your Award unless the shares are either (i) then registered under the Securities Act or (ii) the Company has determined that such issuance would be exempt from the registration requirements of the Securities Act. Your Award must also comply with other applicable laws and regulations governing the Award, and you will not receive such shares if the Company determines that such receipt would not be in material compliance with such laws and regulations.

31. Right of Reacquisition.

(a) To the extent provided in the Company's bylaws, as amended from time to time, the Company shall have the right to reacquire all or any part of the shares received pursuant to your Award (a "***Reacquisition Right***").

(b) To the extent a Reacquisition Right is not provided in the Company's bylaws, as amended from time to time, the Company shall have a Reacquisition Right as to the shares you received pursuant to your Award that have not as yet vested in accordance with the Vesting Schedule on the Grant Notice ("***Unvested Shares***") on the following terms and conditions:

(i) The Company, shall simultaneously with termination of your Continuous Service automatically reacquire for no consideration all of the Unvested Shares, unless the Company agrees to waive its Reacquisition Right as to some or all of the Unvested Shares. Any such waiver shall be exercised by the Company by written notice to you or your representative (with a copy to the Escrow Holder as defined below) within ninety (90) days after the termination of your Continuous Service, and the Escrow Holder may then release to you the number of Unvested Shares not being reacquired by the Company. If the Company does not waive its Reacquisition Right as to all of the Unvested Shares, then upon such termination of your Continuous Service, the Escrow Holder shall transfer to the Company the number of shares the Company is reacquiring.

(ii) The Company shall have the right to reacquire the Unvested Shares upon termination of your Continuous Service for no monetary consideration (that is, for $0.00).

(iii) The shares issued under your Award shall be held in escrow pursuant to the terms of the Joint Escrow Instructions attached to the Grant Notice as Attachment IV. You agree to execute two (2) Assignment Separate From Certificate forms (with date and number of shares blank) substantially in the form attached to the Grant Notice as Attachment III and deliver the same, along with the certificate or certificates evidencing the shares, for use by the escrow agent pursuant to the terms of the Joint Escrow Instructions.

(iv) Subject to the provisions of your Award, you shall, during the term of your Award, exercise all rights and privileges of a stockholder of the Company with respect to the shares deposited in escrow. You shall be deemed to be the holder of the shares for purposes of receiving any dividends which may be paid with respect to such shares and for purposes of exercising any voting rights relating to such shares; *provided that* any dividends payable with respect to shares that have not yet vested and been released from the Company's Reacquisition Right shall immediately be subject to the Reacquisition Right with the same force and effect as the shares subject to this Reacquisition Right immediately before such event.

(v) If, from time to time, there is any stock dividend, stock split or other change in the character or amount of any of the outstanding stock of the corporation, the stock of which is subject to the provisions of your Award, then in such event any and all new, substituted or additional securities to which you are entitled by reason of your ownership of the shares acquired under your Award shall, to the extent they relate to Unvested Shares, be immediately subject to the Reacquisition Right with the same force and effect as the Unvested Shares subject to this Reacquisition Right immediately before such event.

(vi) In addition to any other limitation on transfer created by applicable securities laws, you shall not sell, assign, hypothecate, donate, encumber, or otherwise dispose of any interest in the Common Stock while such shares of Common Stock are subject to the Reacquisition Right or continue to be held in the Joint Escrow.

32. Restrictive Legends. The shares issued under your Award shall be endorsed with appropriate legends determined by the Company.

33. Award not a Service Contract. Your Award is not an employment or service contract, and nothing in your Award shall be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or on the part of the Company or an Affiliate to continue your employment. In addition, nothing in your Award shall obligate the Company or an Affiliate, their respective stockholders, boards of

directors, Officers or Employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

34. Withholding Obligations.

(a) At the time your Award is made, or at any time thereafter as requested by the Company and as further provided in Section 8 of the Plan, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with your Award (the "***Withholding Obligation***") in accordance with the withholding procedures established by the Company.

(b) Unless the Withholding Obligation is satisfied, the Company shall have no obligation to issue a certificate for such shares or release such shares from any escrow provided for herein. In the event the Withholding Obligation of the Company arises prior to the issuance of a certificate or release of shares from any escrow provided for herein, or it is determined after the issuance of a certificate to you or after the release of shares from any escrow to you that the amount of the Withholding Obligation was greater than the amount withheld by the Company, you agree to indemnify and hold the Company harmless from any failure by the Company to withhold the proper amount.

35. Tax Consequences.

(a) You agree to review with your own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Award. You will rely solely on such advisors and not on any statements or representations of the Company or any of its agents. You understand that you (and not the Company) will be responsible for your own tax liability that may arise as a result of this investment or the transactions contemplated by this Award. You understand that under Code Section 83, the excess of the fair market value of the shares subject to the Award on the date any forfeiture restrictions applicable to such shares lapse over any amount paid for such shares will be reportable as ordinary income on the lapse date. For this purpose, the term ***"forfeiture restrictions"*** includes the right of the Company to reacquire the Unvested Shares pursuant to the Reacquisition Right. You may elect under Code Section 83(b) to be taxed at the time the shares subject to the Award are issued, rather than when and as such shares cease to be subject to such forfeiture restrictions. THE FORM FOR MAKING THIS ELECTION MAY BE OBTAINED FROM THE COMPANY UPON YOUR REQUEST. YOU UNDERSTAND THAT FAILURE TO MAKE THIS FILING WITHIN THE APPLICABLE THIRTY (30)-DAY PERIOD WILL RESULT IN THE RECOGNITION OF ORDINARY INCOME AS THE FORFEITURE RESTRICTIONS LAPSE.

(b) **FILING RESPONSIBILITY.** YOU ACKNOWLEDGE THAT IT IS YOUR SOLE RESPONSIBILITY, AND NOT THE COMPANY'S, TO FILE A TIMELY ELECTION UNDER CODE SECTION 83(b), EVEN IF YOU REQUEST THE COMPANY OR ITS REPRESENTATIVES TO MAKE THIS FILING ON YOUR BEHALF.

(c) As a condition to accepting the Award, you hereby (a) agree to not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from the Award or other Company compensation and (b) acknowledge that you were advised to consult with your own personal tax, financial and other legal advisors regarding the tax consequences of the Award and have either done so or knowingly and voluntarily declined to do so.

36. Notices. Any notices provided for in your Award or the Plan shall be given in writing and shall be deemed effectively given upon the earlier of (i) the date of personal delivery, including delivery by express courier, or delivery via electronic means, or (ii) the date that is five (5) days after deposit in the United States Post Office (whether or not actually received by the addressee), by registered or certified mail with postage and fees prepaid, addressed to the Company at its primary executive offices, attention: Stock Plan Administrator, and addressed to you at your address as on file with the Company at the time notice is given.

37. **Transferability.** Except as otherwise provided in the Plan, your Award is not transferable, except by will or by the applicable laws of descent and distribution

38. **Severability.** If any part of this Award Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Award Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Award Agreement (or part of such a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

39. **Other Documents.** You hereby acknowledge receipt of or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Prospectus. In addition, you acknowledge receipt of the Company's Trading Policy.

40. **Miscellaneous.**

(a) You agree upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of your Award.

(b) You acknowledge and agree that you have reviewed your Award in its entirety, have had an opportunity to obtain the advice of counsel prior to executing and accepting your Award and fully understand all provisions of your Award.

(c) If you have questions regarding these or any other terms and conditions applicable to your Award, including a summary of the applicable federal income tax consequences please see the Prospectus.

ATTACHMENT II

2021 EQUITY INCENTIVE PLAN

ATTACHMENT III

FORM OF ASSIGNMENT SEPARATE FROM CERTIFICATE

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Restricted Stock Grant Notice and Restricted Stock Agreement (the "***Award***"), _____ hereby sells, assigns and transfers unto Rani Therapeutics Holdings, Inc, a Delaware corporation ("***Assignee***") _____ (___) shares of the common stock of the Assignee, standing in the undersigned's name on the books of said corporation represented by Certificate No. _____ herewith and do hereby irrevocably constitute and appoint _____ as attorney-in-fact to transfer the said stock on the books of the within named Company with full power of substitution in the premises. This Assignment may be used only in accordance with and subject to the terms and conditions of the Award, in connection with the reacquisition of shares of Common Stock of the Company issued to the undersigned pursuant to the Award, and only to the extent that such shares remain subject to the Company's Reacquisition Right under the Award.

Dated: _____

Signature: _____

_____
(Print Name), Recipient

[INSTRUCTION: Please do not fill in any blanks other than the signature line. The purpose of this Assignment is to enable the Company to exercise its Reacquisition Right set forth in the Award without requiring additional signatures on your part.**]**

ATTACHMENT IV

FORM OF JOINT ESCROW INSTRUCTIONS

JOINT ESCROW INSTRUCTIONS

[Date]

Secretary
Rani Therapeutics Holdings, Inc.
2051 Ringwood Avenue
San Jose, California 95131

Dear Sir/Madam:

As Escrow Agent for both Rani Therapeutics Holdings, Inc, a Delaware corporation (the "***Company***"), and the undersigned recipient of stock of the Company ("***Recipient***"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain Restricted Stock Grant Notice (including all attachments and exhibits thereto) dated _____ (the "***Grant Documents***"), to which a copy of these Joint Escrow Instructions is attached as Attachment IV, in accordance with the following instructions. Capitalized terms not explicitly defined in these instructions but defined in the Company's 2021 Equity Incentive Plan ("***Plan***") or the Grant Documents shall have the same definitions as provided therein.

1. In the event Recipient ceases to render services to the Company or an affiliate of the Company during the vesting period set forth in the Grant Documents, the Company or its assignee will give to Recipient and you a written notice specifying that the shares of stock shall be transferred to the Company. Recipient and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

40. At the closing you are directed (a) to date any stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver same, together with the certificate evidencing the shares of stock to be transferred, to the Company.

41. Recipient irrevocably authorizes the Company to deposit with you any certificates evidencing shares of stock to be held by you hereunder and any additions and substitutions to said shares as specified in the Grant Documents. Recipient does hereby irrevocably constitute and appoint you as Recipient's attorney-in-fact and agent for the term of this escrow to execute with respect to such securities and other property all documents of assignment and/or transfer and all stock certificates necessary or appropriate to make all securities negotiable and complete any transaction herein contemplated.

42. This escrow shall terminate upon vesting of the shares or upon the earlier return of the shares to the Company.

43. If at the time of termination of this escrow you should have in your possession any documents, securities, or other property belonging to Recipient, you shall deliver all of same to any pledgee entitled thereto or, if none, to Recipient and shall be discharged of all further obligations hereunder.

44. Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

45. You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties or their assignees. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Recipient

while acting in good faith and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

46. You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law, and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree of any court, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

47. You shall not be liable in any respect on account of the identity, authority or rights of the parties executing or delivering or purporting to execute or deliver the Grant Documents or any documents or papers deposited or called for hereunder.

48. You shall not be liable for the outlawing of any rights under any statute of limitations with respect to these Joint Escrow Instructions or any documents deposited with you.

49. You shall be entitled to employ such legal counsel, including but not limited to Cooley LLP, and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder, may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor.

50. Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be Secretary of the Company or if you shall resign by written notice to each party. In the event of any such termination, the Company may appoint any officer or assistant officer of the Company as successor Escrow Agent and Recipient hereby confirms the appointment of such successor or successors as his attorney-in-fact and agent to the full extent of your appointment.

51. If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

52. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such dispute shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

53. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given on the earlier of (i) the date of personal delivery, including delivery by express courier, or delivery via electronic means, or (ii) the date that is five (5) days after deposit in any United States Post Box (whether or not actually received by the addressee), by registered or certified mail with postage and fees prepaid, addressed to each of the other parties hereunto entitled at the following addresses, or at such other addresses as a party may designate by ten (10) days' advance written notice to each of the other parties hereto:

COMPANY:	Rani Therapeutics Holdings, Inc. 2051 Ringwood Avenue San Jose, California 95131 Attn: General Counsel
RECIPIENT:	_____ _____ _____ _____
ESCROW AGENT:	Rani Therapeutics Holdings, Inc. 2051 Ringwood Avenue San Jose, California 95131 Attn: Secretary

54. By signing these Joint Escrow Instructions you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Grant Documents.

55. This instrument shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns. It is understood and agreed that references to "you" or "your" herein refer to the original Escrow Agent and to any and all successor Escrow Agents. It is understood and agreed that the Company may at any time or from time to time assign its rights under the Grant Documents and these Joint Escrow Instructions in whole or in part.

Very truly yours,

RANI THERAPEUTICS HOLDINGS, INC.

By: _____

RECIPIENT

_____

ESCROW AGENT:

_____

Exhibit 10.14

Amendment No. 1 to Service Agreement

This Amendment No. 1 to Service Agreement ("the "**Amendment**") is made and entered into effective as of March 21, 2022 (the "**Amendment Effective Date**") by and between InCube Labs, LLC, a Delaware limited liability company ("**InCube**"), and Rani Therapeutics, LLC, a California limited liability company ("**Rani**"), each a "Party" and collectively the "**Parties**."

WHEREAS, the Parties entered into a Service Agreement effective as of January 1, 2021 (the "**Service Agreement**") for the purpose of providing and/or receiving certain services between the Parties; and

WHEREAS, the Parties desire to amend the Service Agreement to address the provision and/or receipt of certain occupancy services;

NOW, THEREFORE, in consideration of the mutual promises contained herein, and intending to be bound hereby, the Parties agree as follows:

1. Defined Terms. Capitalized terms used but not defined in this Amendment shall have the meanings assigned to such terms in the Service Agreement.

2. Occupancy Services. Section 1.1 of the Service Agreement is hereby amended by deleting the current Section 1.1 of the Service Agreement and replacing with the following new Section 1.1:

   "1.1 Provider may allow Recipient and/or its affiliates to occupy a portion of one or more of Provider's facilities ("**Occupancy Services**"). Herein, the portion of each facility agreed upon with respect to Occupancy Services is referred to as the "**Premises**", the portion of each Premises which will be exclusive to Recipient or its affiliates is referred to as the "**Exclusive Portion**", and the portion of the Premises which will be shared with Provider or its affiliates or other tenants is referred to as the "**Shared Portion**". The following subsections in this Section 1.1 shall apply to each Premises for which Occupancy Services are provided.

   1.1.1 So long as there is no Event of Default with Recipient as the Breaching Party, Recipient will have access to the Premises twenty-four (24) hours a day, seven (7) days a week throughout the Term to use the Premises for any use permitted to Provider under its lease for the Premises.

   1.1.2 Recipient will not permit the existence, maintenance, or commission, of any act, omission, or condition at the Premises by Recipient or its employees, agents, invitees, contractors, or vendors ("**Recipient's Invitees**"), that may constitute a nuisance, unlawful acts, or unreasonable annoyance to other persons at or neighboring the Premises.

1.1.3 To the extent that Provider is not timely reimbursed by insurance proceeds, Recipient will reimburse Provider for the cost of repairing damage caused by the acts or omissions of Recipient or Recipient's Invitees, including an increase in the cost of insurance resulting from the damage, if applicable. If Provider is subsequently reimbursed by insurance, the parties will reconcile the proceeds.

1.1.4 Recipient agrees at all times during the Term, at its own expense, to maintain the Exclusive Portion in good and tenantable condition. Provider agrees that the Premises and Exclusive Portion will be in good and tenantable condition as of the commencement date of the Occupancy Services.

Recipient agrees at all times during the Term, at its own expense, to maintain (including repairing) any item installed or provided for the exclusive use or benefit of Recipient, including as applicable and without limitation any equipment, backup generator, HVAC system, special flooring, fiber and other cabling, phone equipment, and data equipment, to the extent Provider is obligated to do so under its lease for the Premises.

1.1.5 Recipient will not make alterations to the Premises without the prior written consent of Provider, which consent will not be unreasonably withheld, conditioned or delayed. Any alterations made by Recipient will be in accordance with applicable laws, rules, codes and regulations of the city, county and state in which the Premises are located.

1.1.6 Recipient will not allow the Premises to be used by it or Recipient's Invitees in any manner that will harm or impair the structural strength of any building, nor allow to be installed or operated on the Premises any machinery or apparatus whose size, weight, vibration, or other aspect would harm or impair the structural strength of the building. Recipient will not place a heavy load upon the floor or roof of any building at the Premises without Provider's prior written consent. Machines and mechanical equipment used by Recipient which cause vibration or noise that may be transmitted to or within any building structure to such a degree as to be reasonably objectionable to Provider will be placed and maintained by Recipient at its expense in a manner to prevent/eliminate such vibration or noise.

1.1.7 Recipient will comply, at its sole cost, with any laws, regulations, ordinances, codes, certificate of occupancy, certificate of compliance, permit, easement, condition, covenant or restriction covering or affecting Recipient's use or occupancy of the Premises (for clarity, this paragraph applies to Recipient's use, and does not create an obligation on Recipient to bring the Building or Premises into compliance with applicable laws, regulations, codes, etc.).

1.1.8 Recipient will comply, at its sole cost, with all restrictions imposed by any insurance company insuring the Premises, to the extent that the restrictions concern Recipient's use or occupancy of the Premises.

1.1.9 Recipient will comply with all restrictions reasonably imposed by Provider in light of its obligations under its lease for the Premises.

1.1.10 Recipient will, at its sole cost, make any alteration, addition, or change to the Premises as may be required as a result of Recipient's application or registration for any permit or governmental approval, subject to Provider's prior approval. Provider may elect to make same, in which case Recipient will reimburse Provider promptly upon demand for all costs of Provider's making same.

1.1.11 Provider will be under no obligation to make any repairs, alterations, renewals, replacements or improvements to and upon the Premises or the mechanical equipment serving the Premises at any time except as this Agreement expressly provides.

1.1.12 Provider will obtain any consent(s) or permission(s) required under its lease(s) to permit the Occupancy Services.

3. Shared Costs. Section 1.2 of the Service Agreement is hereby amended by deleting the current Section 1.2 of the Service Agreement and replacing with the following new Section 1.2:

"1.2 With respect to each Premises, if specified in the Appendix applicable to such Premises, the Parties shall share certain costs paid by the Parties for the operation of the Premises ("**Shared Costs**") as set forth herein for the period that Recipient utilizes the Occupancy Services at the Premises.

1.1.1 Third-party services. Shared Costs will include sums expended for continuing third party services such as (without limitation): security services; janitorial services; and landscape maintenance services.

1.1.2 Office supplies. Shared Costs will include sums expended for office supplies including (without limitation): writing utensils; writing paper and books; printing and copying paper; printer toner and ink; kitchen supplies; restroom supplies; and decorations (including seasonal).

1.1.3 Shared Costs shall not include costs specific to one Party's business operations, which costs shall be borne solely by that Party.

4. Exhibit A. Exhibit A of the Service Agreement is hereby amended to:

a) Delete “Not applicable” for the Obligations; Charges for Occupancy Services and replace it with “See attached appendices.”;

b) Delete “Not applicable” for the Obligations; Charges for Shared Costs and replace it with “See attached appendices.”; and

c) Incorporate into, and attach to, Exhibit A of the Service Agreement the items attached to this Amendment as Appendix 1 and Appendix 2

d) Delete the sections entitled “Administrative,” “Personnel (other than Administrative)” and “Special” and to replace them with the following:

“- Either Rani or InCube may provide to the other Administrative Services, Personnel Services and/or Special Services upon request and subject to availability of resources.
- For any such Services performed by Provider, Provider can invoice the Recipient for services performed based on a formula: Invoiced Amount = Actual Hours x Hourly Billing Rate based on a formula; or based on an agreed percentage of full-time equivalent (FTE) time.
– For any such Services performed by a Subcontractor of Provider, Provider can invoice Recipient the amount paid to the Subcontractor, without markup.
- For any Out-of-Pocket Costs related to the performance of any such Services, Provider can invoice Recipient the amount of such Out-of-Pocket Costs, without markup.”

5. Indemnification. Section 9 of the Service Agreement is hereby amended to add the following as Section 9.3:

“9.3 Recipient (as tenant) will indemnify and hold Provider (as landlord) harmless from any Losses incurred or suffered by Provider arising from the bringing, allowing, using, permitting, generating, creating, emitting or disposing of toxic materials if by Recipient or its invitees or agents during the Term even if discovered after the Term. Recipient’s indemnification and hold harmless obligations include, without limitation, Losses (i) resulting from or based upon administrative, judicial (civil or criminal), or other action, legal or equitable, brought by any private or public person under common law or any federal, state, county or municipal law, ordinance or regulation, and (ii) pertaining to the cleanup or containment of toxic materials, the identification of the pollutants in toxic materials, the identification of the scope of any environmental contamination, the removal of pollutants from soils, riverbeds or aquifers, the provision of an alternative public drinking water source, or the long term monitoring of ground water and surface waters. Recipient will comply, at its sole cost, with all laws pertaining to such toxic materials. Recipient’s hold harmless and indemnity obligations hereunder will survive the expiration or termination of this Agreement.”

6. Termination. Section 11.2.2 of the Service Agreement is hereby amended and restated as follows:

"11.2.2 The term of Occupancy Services for each Premises shall be as set forth in the applicable Appendix to Exhibit A for such Premises, and any termination of this Agreement shall not terminate Occupancy Services for a Premises unless termination of this Agreement is for uncured Event of Default regarding Occupancy Services at such Premises, in accordance with Section 11.4.3; otherwise, Occupancy Services shall survive termination of this Agreement until the expiration of the term for the applicable Premises and the terms of this Agreement shall continue to apply thereto during such period. Recipient may terminate any of the other services, but not all services, upon sixty (60) days' notice to Provider prior to any performance of that service; Recipient will reimburse Provider for actual non-recoverable costs arising prior to termination of that service, which costs arose when, and to the extent that, Provider reasonably obtained or contracted in advance for personnel, resources, supplies, and/or materials reasonably needed to perform that terminated service."

7. Miscellaneous. This Amendment may be executed in counterparts, each of which will be deemed an original, but all of which together will be deemed to be one and the same agreement. This Amendment may be executed by electronic signatures (e.g., using DocuSign or e-SignLive) or signatures transmitted by electronic means (e.g., facsimile, email, pdf format), each of which shall be deemed a valid and enforceable signature and means of delivery. Neither Party may assign or otherwise transfer this Amendment except in connection with a permitted assignment of the Service Agreement. Subject to the foregoing, this Amendment shall bind and inure to the benefit of the Parties hereto and their successors and assigns. This Amendment shall be governed by the laws of the state of California without reference to conflict of laws principles. Resolution of any dispute under or related to this Amendment shall be subject to and handled in accordance with the dispute resolutions set forth in Section 15 of the Service Agreement. This Amendment, together with the Service Agreement, contains the entire understanding and agreement between the Parties with respect to the subject matter hereof. Headings are included for convenience only and shall not be used in interpreting this Amendment. If any provision of this Amendment is found to be illegal or unenforceable, the other provisions shall remain effective and enforceable to the greatest extent permitted by law. Any failure to enforce any provision of this Amendment shall not constitute a waiver thereof or of any other provision. This Amendment may not be amended, nor any obligation waived, except by a writing signed by both Parties hereto.

[signature page immediately follows]

IN WITNESS WHEREOF, each Party hereto has caused this Amendment to be signed by its duly authorized representative.

InCube Labs, LLC		**Rani Therapeutics, LLC**	
By:	/s/ Mir Imran	By:	/s/ Svai Sanford
Name:	Mir Imran	Name:	Svai Sanford
Title:	Chairman and CEO	Title:	Chief Financial Officer

Appendix 1 to Exhibit A – Occupancy Services for 518 Sycamore Dr.

1. **PROVIDER**: InCube Labs, LLC
2. **RECIPIENT**: Rani Therapeutics, LLC
3. **PREMISES**: Approximately 11,331 square feet of 20,626 square feet within a building (the "Building") located at 518 Sycamore Dr., Milpitas, CA
4. **COMMENCEMENT**: The occupancy shall have an effective date of March 21, 2022.
5. **OCCUPANCY**: Recipient shall occupy on an exclusive basis the portion of the Building that constitutes the Premises, and Recipient shall share use of the common areas of the Building (e.g., two restrooms, kitchen, and lobby) with Provider.
6. **RENT**: Recipient shall pay $28,327.50 ($2.50 per square foot) per month for the initial term. Rent shall be subject to a five percent (5%) increase for each renewal term, if applicable. Provider can invoice on a monthly basis.
7. **PARKING**: Recipient shall have the right to use 46 parking spaces on site at no cost for the duration of the Occupancy Services for the Premises.
8. **USE**: The Premises shall be used and occupied for general office, research and development, light manufacturing, and any such other purposes as are permitted under Provider's lease.
9. **TERM**: The initial term shall be March 21, 2022 through February 28, 2023. Recipient shall have the right to renew the term for twelve months (March 1, 2023 through February 29, 2024) upon not less than nine (9) months prior written notice and subject to the landlord's approval of the extension period for Provider. If the initial term is renewed, Recipient shall have a second right to renew the term for an additional twelve months (March 1, 2024 through February 28, 2025) upon written notice given not less than nine (9) months prior to the end of the first renewal term.
10. **OPERATING EXPENSES**: Recipient shall pay a common area maintenance charge of $0.25 per square foot per month, which is subject to true up (based on Recipient's pro rata percentage of the overall leased space ("Recipient's Share")) and landlord adjustment. Any adjustment to the charge by the landlord will be passed through based on Recipient's Share.
11. **SHARED COSTS**: Recipient shall bear Recipient's Share and Provider shall bear Provider's Share of third- party service Shared Costs, except that the cost of office supplies shall be shared between Provider and Recipient based on estimated usage, considering the number of people of each party in the Building utilizing office supplies and the nature of the work performed by each party in the Building.
12. **STORAGE:** Provider rents certain storage space near the Premises. Recipient shall have a right to utilize such storage space and agrees to pay the rental fee for such storage space for the current two-year term.
13. **EQUIPMENT**: Provider will permit Recipient to use the equipment located at the Premises (for clarity, excluding equipment in the Building used within the business of Modulus in the ordinary course) without additional charge, including without limitation, lab tables, microscopes, and other equipment (ovens, etc.), cubicles, monitors, docking stations, and printers.

Appendix 2 to Exhibit A – Occupancy Services for 12500 Network Blvd

1. **PROVIDER**: InCube Labs, LLC
2. **RECIPIENT**: Rani Therapeutics, LLC
3. **PREMISES**: Approximately 20,773 square feet located at 12500 Network Blvd, Suite 112, San Antonio, TX
4. **COMMENCEMENT**: The occupancy shall have an effective date of March 21, 2022.
5. **OCCUPANCY**: Provider and Recipient shall share the Premises such that each shall have equal and undivided use of the entirety of the Premises and the machinery and equipment located thereon.
6. **RENT**: Provider and Recipient shall each bear a portion of the rent due under Provider's lease for the Premises at a ratio of eighty percent (80%) by Recipient ("Recipient's Share") and twenty percent (20%) by Provider ("Provider's Share"). Provider can invoice on a monthly basis.
7. **PARKING**: Recipient shall have pro-rata use of the parking on site at no cost for the duration of the Occupancy Services for the Premises.
8. **USE**: The Premises shall be used and occupied for general office, research and development, light manufacturing, and any such other purposes as are permitted under Provider's lease.
9. **TERM**: The term of Occupancy Services shall continue until terminated by either Party upon not less than six (6) months' prior written notice.
10. **OPERATING EXPENSES**: Recipient shall pay as additional rent Recipient's Share of common area operating expenses, including taxes, insurance, utilities, and repair and maintenance of the Premises and common area, payable and paid by Provider under its lease for the Premises. Notwithstanding the foregoing, if any payment of Rent or Operating Expenses is specifically attributable to either Recipient's or Provider's operation or use of the Premises (for example, a late fee charged because such party is late in making payment), then the Party causing such payment shall be solely responsible for such payment.
11. **SHARED COSTS**: Recipient shall bear Recipient's Share and Provider shall bear Provider's Share of Shared Costs.
12. **ADJUSTMENT**: In the event a Party believes that the relative usage of the Premises by the Recipient and Provider has meaningfully changed, then upon request of either Recipient or Provider the Parties shall discuss in good faith whether to adjust the relative percentage (i.e., Recipient's Share and Provider's Share) of Rent, Operating Expenses and/or Shared Costs payable by each Party thereafter. No such adjustment shall be made, however, unless mutually agreed upon by the Parties.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-258415) pertaining to the Rani Therapeutics Holdings, Inc. 2021 Equity Incentive Plan, the Rani Therapeutics Holdings, Inc. 2021 Employee Stock Purchase Plan and the Rani Therapeutics, LLC 2016 Equity Incentive Plan of Rani Therapeutics Holdings, Inc. of our report dated March 30, 2022, with respect to the consolidated financial statements of Rani Therapeutics Holdings, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2021.

/s/ Ernst & Young LLP

Redwood City, California
March 30, 2022

Exhibit 31.1

CERTIFICATION

I, Talat Imran, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rani Therapeutics Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2022

/s/ Talat Imran
Talat Imran
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION

I, Svai Sanford, certify that:

1. I have reviewed this Annual Report on Form 10-K of Rani Therapeutics Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2022

/s/ Svai Sanford
Svai Sanford
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Talat Imran, Chief Executive Officer of Rani Therapeutics Holdings, Inc. (the "Company"), and Svai Sanford, Chief Financial Officer of the Company, each hereby certifies that, to the best of his or her knowledge:

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2021, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 30, 2022

In Witness Whereof, the undersigned have set their hands hereto as of the 30th day of March, 2022.

/s/ Talat Imran	/s/ Svai Sanford
Talat Imran	Svai Sanford
Chief Executive Officer	Chief Financial Officer
(Principal Executive Officer)	(Principal Financial and Accounting Officer)

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Rani Therapeutics Holdings, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.