UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2022

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**	
(Address of principal executive offices)	**95131** **(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

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of August 8, 2022, the registrant had 24,492,016 shares of Class A common stock, $0.0001 par value per share, outstanding, 24,663,752 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.

Table of Contents

Unless otherwise stated or the context otherwise requires, 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").

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, 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 Quarterly Report on Form 10-Q, 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 Quarterly Report on Form 10-Q 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 complete development of the RaniPill HC or any redesign and conduct additional preclinical and clinical studies of the RaniPill HC or 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 our Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2022. 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 Quarterly Report on Form 10-Q, 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.

RANI THERAPEUTICS HOLDINGS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

	June 30, 2022 (Unaudited)	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 97,181	$ 117,453
Prepaid expenses	812	2,142
Total current assets	97,993	119,595
Property and equipment, net	5,352	4,612
Operating lease right-of-use asset	999	—
Total assets	$ 104,344	$ 124,207
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 1,440	$ 1,080
Related party payable	30	126
Accrued expenses	3,221	1,434
Operating lease liability, current portion	658	—
Total current liabilities	5,349	2,640
Operating lease liability, net current portion	341	—
Total liabilities	5,690	2,640
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, $0.0001 par value - 20,000 shares authorized; none issued and outstanding as of June 30, 2022 and December 31, 2021	—	—
Class A common stock, $0.0001 par value - 800,000 shares authorized; 24,494 and 19,712 issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	2	2
Class B common stock, $0.0001 par value - 40,000 shares authorized; 24,663 and 29,290 issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	3	3
Class C common stock, $0.0001 par value - 20,000 shares authorized; none issued and outstanding as of June 30, 2022 and December 31, 2021	—	—
Additional paid-in capital	69,986	55,737
Accumulated deficit	(22,178)	(8,331)
Total stockholders' equity attributable to Rani Therapeutics Holdings, Inc.	47,813	47,411
Non-controlling interest	50,841	74,156
Total stockholders' equity	98,654	121,567
Total liabilities and stockholders' equity	$ 104,344	$ 124,207

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

RANI THERAPEUTICS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Contract revenue	$ —	$ 1,961	$ —	$ 2,717
Operating expenses				
Research and development	9,528	3,759	17,118	7,106
General and administrative	6,319	3,460	12,509	6,067
Total operating expenses	$ 15,847	$ 7,219	$ 29,627	$ 13,173
Loss from operations	(15,847)	(5,258)	(29,627)	(10,456)
Other income (expense), net				
Interest income and other, net	35	13	50	60
Interest expense and other, net	—	(169)	—	(357)
Change in estimated fair value of preferred unit warrant	—	(70)	—	(286)
Loss before income taxes	(15,812)	(5,484)	(29,577)	(11,039)
Income tax expense	(154)	(1)	(217)	(44)
Net loss and comprehensive loss	$ (15,966)	$ (5,485)	$ (29,794)	$ (11,083)
Net loss attributable to non-controlling interest	(8,342)	(5,485)	(15,947)	(11,083)
Net loss attributable to Rani Therapeutics Holdings, Inc.	$ (7,624)	$ —	$ (13,847)	$ —
Net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc., basic and diluted	$ (0.31)		$ (0.60)	
Weighted-average Class A common shares outstanding—basic and diluted	24,371		22,930	

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

RANI THERAPEUTICS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY/CONVERTIBLE PREFERRED UNITS AND MEMBERS' DEFICIT
(in thousands)
(Unaudited)

	Class A Common Stock		Class B Common Stock					
	Shares	Amount	Shares	Amount	Additional Paid In Capital	Accumulated Deficit	Non-Controlling Interest	Total Stockholders' Equity
Balance at December 31, 2021	19,712	$ 2	29,290	$ 3	$ 55,737	$ (8,331)	$ 74,156	$ 121,567
Effect of exchanges of Paired Interests and non-corresponding Class A Units of Rani LLC	4,675	—	(4,517)	—	—	—	—	—
Non-controlling interest adjustment for changes in proportionate ownership in Rani LLC	—	—	—	—	10,928	—	(10,928)	—
Equity-based compensation	—	—	—	—	1,268	—	1,637	2,905
Net loss	—	—	—	—	—	(6,223)	(7,605)	(13,828)
Balance at March 31, 2022	24,387	$ 2	24,773	$ 3	$ 67,933	$ (14,554)	$ 57,260	$ 110,644
Forfeiture of restricted stock awards	(3)	—	—	—	(3)	—	(3)	(6)
Effect of exchanges of Paired Interests and non-corresponding Class A Units of Rani LLC	110	—	(110)	—	—	—	—	—
Non-controlling interest adjustment for changes in proportionate ownership in Rani LLC	—	—	—	—	126	—	(126)	—
Equity-based compensation	—	—	—	—	1,930	—	2,052	3,982
Net loss	—	—	—	—	—	(7,624)	(8,342)	(15,966)
Balance at June 30, 2022	24,494	$ 2	24,663	$ 3	$ 69,986	$ (22,178)	$ 50,841	$ 98,654

	Convertible Preferred		Common			
	Units	Amount	Units	Amount	Accumulated Deficit	Total Members' Deficit
Balance at December 31, 2020	26,746	$ 184,714	46,890	$ 664	$ (114,003)	$ (113,339)
Issuance of Series E preferred units	884	6,320	—	—	—	—
Exercise of warrant for common units	—	—	6	13	—	13
Equity-based compensation	—	—	—	453	—	453
Net loss	—	—	—	—	(5,598)	(5,598)
Balance at March 31, 2021	27,630	$ 191,034	46,896	$ 1,130	$ (119,601)	$ (118,471)
Equity-based compensation	—	—	—	282	—	282
Net loss	—	—	—	—	(5,485)	(5,485)
Balance at June 30, 2021	27,630	$ 191,034	46,896	$ 1,412	$ (125,086)	$ (123,674)

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

RANI THERAPEUTICS HOLDINGS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(Unaudited)

	Six Months Ended June 30,	
	2022	2021
Cash flows from operating activities		
Net loss	$ (29,794)	$ (11,083)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	233	264
Equity-based compensation expense	6,881	735
Change in fair value of preferred unit warrant liability	—	286
Non-cash operating lease expense	317	—
Other	—	124
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	1,330	2
Accounts payable	209	421
Accrued expenses	1,549	1,554
Operating lease liabilities	(317)	—
Related party payable	(96)	738
Deferred revenue	—	(2,717)
Net cash used in operating activities	(19,688)	(9,676)
Cash flows from investing activities		
Purchases of property and equipment	(633)	(235)
Net cash used in investing activities	(633)	(235)
Cash flows from financing activities		
Proceeds from employee stock purchase plan	49	—
Proceeds from issuance of preferred units, net of issuance costs	—	6,320
Proceeds from exercise of warrants for common units	—	13
Payment of deferred offering costs	—	(1,886)
Principal and interest repayments from related party for note receivable	—	1,720
Net cash provided by financing activities	49	6,167
Net decrease in cash and cash equivalents	(20,272)	(3,744)
Cash and cash equivalents, beginning of period	117,453	73,058
Cash and cash equivalents, end of period	$ 97,181	$ 69,314
Supplemental disclosures of non-cash investing and financing activities		
Property and equipment purchases included in accounts payable and accrued expenses	$ 340	$ —
Exchanges of Paired Interests and non-corresponding Class A Units of Rani LLC	$ 74,567	$ —
Deferred financing costs included in accounts payable and accrued expenses	$ —	$ 1,527

The accompanying notes are an integral part of these unaudited condensed 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 and drugs orally, to provide patients, physicians, and healthcare systems with a convenient alternative to painful injections. The Company is advancing a portfolio of oral therapeutics using its proprietary delivery technology, the RaniPill capsule. The Company is headquartered in San Jose, California and operates in one segment.

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 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. As of June 30, 2022, certain individuals who continue to own interests in Rani LLC but do not hold shares of the Company’s Class B common stock (“non-corresponding Class A Units”) have the ability to exchange their non-corresponding Class A Units of Rani LLC for 1,387,471 shares of the Company’s Class A common stock.

Liquidity

The Company has incurred recurring losses since its inception, including net losses of $29.8 million for the six months ended June 30, 2022. As of June 30, 2022, the Company had an accumulated deficit of $22.2 million and for the six months ended June 30, 2022 had negative cash flows from operations of $19.7 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 $97.2 million as of June 30, 2022 will be sufficient to fund its operations through at least twelve months from the date the condensed 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 condensed 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 condensed 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.

Unaudited Interim Condensed Consolidated Financial Statements

The accompanying condensed consolidated financial statements have been prepared in accordance with U.S. GAAP for interim financial information and pursuant to Form 10-Q of Regulation S-X of the Securities and Exchange Commission ("SEC"). Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. These unaudited condensed consolidated financial statements include all adjustments necessary to fairly state the financial position and the results of the Company's operations and cash flows for interim periods in accordance with U.S. GAAP. All such adjustments are of a normal, recurring nature except for the adoption of the new lease accounting standard. Operating results for the three and six months ended June 30, 2022 are not necessarily indicative of the results that may be expected for the year ending December 31, 2022 or for any future period.

The consolidated balance sheet as of December 31, 2021 included herein was derived from the audited consolidated financial statements as of that date. Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. Therefore, these interim condensed consolidated financial statements should be read in conjunction with the 2021 consolidated financial statements and notes included in the Company's Annual Report on Form 10-K filed with the SEC on March 31, 2022.

Use of Estimates

The preparation of the condensed 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 condensed 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 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.

Significant Accounting Policies

A description of the Company's significant accounting policies is included in the audited consolidated financial statements within its Annual Report on Form 10-K for the year ended December 31, 2021. Except as noted below, there have been no material changes in the Company's significant accounting policies during the six months ended June 30, 2022.

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 March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. The extent to which the COVID-19 pandemic will further directly or indirectly impact the Company's results of operation and financial condition has been and will continue to be driven by many factors, most of which are beyond the Company's control and ability to forecast. Because of these uncertainties, the Company cannot estimate how long or to what extent COVID-19 will impact the Company's operations.

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.

Leases

Prior to January 1, 2022, the Company had one cancelable operating lease agreement for its corporate headquarters and recognized related rent expense on a straight-line basis over the term of the lease. The Company's lease agreement contained termination and renewal options. The Company did not assume termination nor renewals options in its determination of the lease term unless they were deemed to be reasonably certain at the renewal of the lease. The Company began recognizing rent expense on the date that it obtained the legal right to use and control the leased space.

Subsequent to the adoption of the new leasing standard on January 1, 2022, the Company determines whether the arrangement is or contains a lease based on the unique facts and circumstances present at the inception of the arrangement and if such a lease is classified as a financing lease or operating lease. The Company has elected not to recognize on the balance sheet leases with terms of one year or less. For any arrangement that is considered to be a lease with a term greater than one year, the Company recognizes a lease asset for its right to use the underlying asset and a lease liability for the corresponding lease obligation. Operating leases are included in operating lease right-of-use ("ROU") assets and operating lease liabilities in the Company's condensed consolidated balance sheet as of June 30, 2022.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease contract. Operating lease ROU assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the expected lease term. In determining the net present value of lease payments, the interest rate implicit in lease contracts is typically not readily determinable. As such, the Company utilizes the appropriate incremental borrowing rate ("IBR"), which is the rate incurred to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. Certain adjustments to the ROU asset may be required for items such as initial direct costs paid or incentives received and impairment charges if we determine the ROU asset is impaired. The Company considers a lease term to be the noncancelable period during which it has the right to use the underlying asset, including any periods where it is reasonably certain the Company will exercise the option to extend the contract. Periods covered by an option to extend are included in the lease term if the lessor controls the exercise of that option.

The operating lease ROU assets also include any lease payments made and exclude lease incentives. Lease expense is recognized on a straight-line basis over the expected lease term. The Company has elected to not separate lease and non-lease components for its leased assets and accounts for all lease and non-lease components of its agreements as a single lease component. The lease components resulting in a ROU asset have been recorded on the condensed consolidated balance sheet and amortized as lease expense on a straight-line basis over the lease term.

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 or non-corresponding Class A Units of Rani LLC 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 or non-corresponding Class A Units of Rani LLC 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 (Note 10).

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.

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 three and six months ended June 30, 2021 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 is applicable only for the periods following the IPO and Organizational Transactions and represents the periods that the Company had Class A common shares outstanding.

Non-Controlling Interest

Non-controlling interest ("NCI") represents the portion of income or loss, net assets and comprehensive loss of the Company's consolidated subsidiary that is not allocable to Rani Holdings based on the Company's 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 June 30, 2022, Rani Holdings held approximately 48% of the Class A Units of Rani LLC, and approximately 52% 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 condensed consolidated balance sheet as of June 30, 2022. 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 condensed consolidated statements of operations and comprehensive income or loss.

Future exchanges of Paired Interests and non-corresponding Class A Units of Rani LLC 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 June 30, 2022, there were 4,626,639 exchanges of Paired Interests and 158,051 exchanges of non-corresponding Class A Units of Rani LLC for an equal number of shares of the Company's Class A common stock.

Recently Adopted 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. The Company adopted this standard on January 1, 2022 using the modified retrospective approach and elected the package of practical expedients permitted under transition guidance, which allowed the Company to carry forward its historical assessments of: 1) whether contracts are or contain leases, 2) lease classification and 3) initial direct costs, where applicable. The Company did not elect the practical expedient allowing the use-of-hindsight which would require the Company to reassess the lease term of its leases based on all facts and circumstances through the effective date and did not elect the practical expedient pertaining to land easements as this is not applicable to the current contract portfolio. The Company elected the post-transition practical expedient to not separate lease components from non-lease components for all existing lease classes. The Company also elected a policy of not recording leases on its condensed balance sheets when the leases have a term of twelve months or less and the Company is not reasonably certain to elect an option to purchase the leased asset.

The adoption of this standard resulted in the recognition of a ROU asset and lease liabilities of $1.3 million, respectively. The adoption of the standard had no impact on the Company’s condensed consolidated statements of operations and comprehensive loss or to its cash flows from or used in operating, financing, or investing activities on its condensed consolidated statements of cash flows. No cumulative-effect adjustment within accumulated deficit was required to be recorded as a result of adopting this standard.

Recently Issued Accounting Pronouncements

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 ASU 2016-13 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 condensed 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 June 30, 2022			
	Level 1	Level 2	Level 3	Total
Assets:				
Money market funds	$ 94,679	$ —	$ —	$ 94,679
Total assets	$ 94,679	$ —	$ —	$ 94,679

	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

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. These preferred unit warrants were settled with Class A common stock as part of the IPO and Organizational Transactions.

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):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Balance at beginning of period	$ —	$ 536	$ —	$ 320
Change in estimated fair value of Series E warrants	—	70	—	286
Balance at end of period	$ —	$ 606	$ —	$ 606

4. Accrued Expenses

Accrued expenses consist of the following (in thousands):

	June 30, 2022	December 31, 2021
Payroll and related	$ 2,037	$ 202
Accrued preclinical and clinical trial costs	464	621
Accrued taxes	358	3
Accrued professional fees	178	213
Other	184	395
Total accrued expenses	$ 3,221	$ 1,434

5. Evaluation Agreement

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.

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 in 2021.

For the six months ended June 30, 2022, no contract revenue related to the Takeda agreement was recognized. For the six months ended June 30, 2021, the Company recognized contract revenue related to the Takeda agreement of $2.7 million. There was no deferred revenue as of June 30, 2022 nor December 31, 2021.

6. Related Party Transactions

InCube Labs, LLC ("ICL") is wholly-owned by the Company's founder and Chairman and his family. The founder and Chairman is the father of the Company's Chief Executive Officer. The Company's Chief Scientific Officer is also the brother of the founder and Chairman and thus uncle of the Company's Chief Executive Officer.

Services agreements

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 the landlord 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 in San Jose, California 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. In April 2022, RMS assigned the RMS-ICL Service Agreement to Rani LLC. The RMS-ICL Service Agreement has a twelve-month term and will automatically renew for successive twelve-month periods unless terminated. Rani LLC 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 Rani LLC, respectively, as well as allocations of expenses based upon Rani LLC'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 the Company charged ICL, which is included in the condensed consolidated statements of operations and comprehensive loss (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Research and development	$ 286	$ 123	$ 526	$ 156
General and administrative	53	184	116	366
Total	$ 339	$ 307	$ 642	$ 522

Prior to April 2022, the Company's eligible employees were permitted to participate in ICL's 401(k) Plan ("401(k) Plan"). Participation in the 401(k) Plan was offered for the benefit of the employees, including the Company's named executive officers, who satisfied certain eligibility requirements. In April 2022, the Company established its own 401(k) Plan, with participation offered for the benefit of the employees, including the Company's named executive officers, who satisfy certain eligibility requirements.

As of June 30, 2022, all of the Company's facilities are owned or leased by an entity affiliated with the Company's Chairman (Note 7). The Company pays for the use of these facilities through its services agreements with ICL.

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 March 2021, an outstanding notes receivable balance totaling $1.7 million, including all accrued interest, was fully repaid by ICL.

During 2020 and 2021, 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, the same related party 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 condensed 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.

Secondary Sales Transactions

In February 2021, one of the Company's named executive officers 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.

Tax Receivable Agreement

Certain parties to the TRA, entered into in August 2021 pursuant to the IPO and Organizational Transactions are related parties of the Company. 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). During the six months ended June 30, 2022, these parties to the TRA exchanged 2,309,490 Paired Interests that resulted in tax benefits subject to the TRA (Note 10).

Registration Rights Agreement

In connection with the IPO, the Company entered into a Registration Rights Agreement. ICL and its affiliates are parties 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 and its affiliates 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 ICL and its affiliates upon, at the Company's election, redemption or exchange of their Paired Interests. The Registration Rights Agreement also provides for piggyback registration rights. In March 2022, certain holders of our Class A common stock considered to be related parties were made parties to the Registration Rights Agreement.

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 and its affiliates, 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 Continuing LLC Owners,

ICL and its affiliates are 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.

During the six months ended June 30, 2022, certain parties to the Rani LLC Agreement exchanged 2,309,490 Paired Interests for an equal number of shares of the Company's Class A common stock.

7. Leases

The Company pays for the use of its office, laboratory and manufacturing facility in San Jose, California as part of the RMS-ICL Service Agreement. In April 2022, RMS assigned the RMS-ICL Service Agreement to Rani LLC. The RMS-ICL Service Agreement has a twelve-month term and will automatically renew for successive twelve-month periods unless Rani LLC or ICL terminate occupancy under the RMS-ICL Service Agreement upon six months' notice. As of June 30, 2022, the Company determined it to be reasonably certain that it would exercise its renewal option for a successive twelve-month period and this has been considered in the determination of the right-of-use assets and lease liabilities associated with the RMS-ICL Service Agreement. At June 30, 2022, the RMS-ICL Service Agreement had a remaining term of 1.5 years.

Under the Rani LLC-ICL Service Agreement amended in March 2022, Rani LLC has a right to occupy certain facilities leased by ICL in Milpitas, California and San Antonio, Texas 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 the landlord 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. As of June 30, 2022, the renewal option for the facility in Milpitas, California was not deemed reasonably certain to be exercised and the Occupancy Services were considered short term.

The Company's leases are accounted for as operating leases and require certain fixed payments of real estate taxes and insurance in addition to future minimum lease payments, and certain variable payments of common area maintenance costs and building utilities. Variable lease payments are expensed in the period in which the obligation for those payments is incurred. These variable lease costs are payments that vary in amount beyond the commencement date, for reasons other than passage of time. Total operating lease expense incurred with ICL was $0.7 million and $0.4 million for the six months ended June 30, 2022 and 2021, respectively. Short term lease expense are included in the total operating lease expense and not immaterial for the periods presented. Variable lease payments are excluded in the total operating lease expense and immaterial for the periods presented.

The Company used its IBR as the discount rate when measuring operating lease liabilities. The discount rate associated with the RMS-ICL Service Agreement is 5.0%.

Supplemental information on the Company's condensed consolidated balance sheet and statements of cash flow as of June 30, 2022 related to leases was as follows (in thousands):

	June 30, 2022
Balance sheet	
Operating lease right-of-use assets	$ 999
Operating lease liability, current portion	$ 658
Operating lease liability, net current portion	341
Total operating lease liability	$ 999

	June 30, 2022
Cash flows	
Cash paid for amounts included in lease liabilities:	
Operating cash flows used for operating leases	$ 345

As of June 30, 2022, minimum annual rental payments under the Company's operating lease agreement is as follows (in thousands):

Year ending December 31,		
2022 (remaining six months)	$	345
2023		690
Total undiscounted future minimum lease payments	$	1,035
Less: Imputed interest		(36)
Total operating lease liability	$	999
Less: Operating lease liability, current portion		658
Operating lease liability, net current portion	$	341

Operating lease in the table above includes future minimum lease payments for the RMS-ICL Service Agreement. Future minimum lease payments of the Rani LLC-ICL Service Agreement for fiscal years 2022 (remaining six months) and 2023 totaled $0.3 million and $0.1 million, respectively.

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.

For the six months ended June 30, 2022, certain of the Continuing LLC Owners executed an exchange of 4,626,639 Paired Interests and 158,051 non-corresponding Class A Units of Rani LLC in return for an equal number of shares of the Company's Class A common stock. The corresponding shares of the Company's Class B common stock included in the exchange of Paired Interests were subsequently cancelled and retired pursuant to the terms of the Rani LLC Agreement.

9. Equity-Based Compensation

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, 2021	2,300,819	$ 14.12	9.55	$ 976
Granted	1,427,285	$ 12.80	9.75	$ —
Forfeited	(40,290)	$ 17.08		
Balance at June 30, 2022	3,687,814	$ 13.57	9.33	$ 1,079
Exercisable at June 30, 2022	596,276	$ 12.93	9.09	$ 315
Nonvested at June 30, 2022	3,091,538	$ 13.70	9.37	$ 764

As of June 30, 2022, there was $27.7 million of unrecognized equity-based compensation expense related to stock options which is expected to be recognized over a weighted-average period of approximately 2.9 years.

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, 2021	596,500	$ 19.56
Granted	443,400	$ 13.21
Forfeited	(69,800)	$ 18.20
Balance at June 30, 2022	970,100	$ 16.76

As of June 30, 2022, there was $11.6 million of unrecognized equity-based compensation expense related to RSUs which is expected to be recognized over a weighted-average period of approximately 2.3 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, 2021	113,173	$ 6.15
Vested	(25,170)	$ 6.16
Forfeited	(2,374)	$ 6.36
Balance at June 30, 2022	85,629	$ 6.14

As of June 30, 2022, there was $0.2 million of unrecognized equity-based compensation expense related to RSAs which is expected to be recognized over a weighted-average period of approximately 1.3 years. The total fair value of the RSAs that vested in 2022 was approximately $0.4 million.

2021 Employee Stock Purchase Plan

The Company recognized stock-based compensation expense related to the 2021 Employee Stock Purchase Plan (the "ESPP") that was not significant during the three and six months ended June 30, 2022. There was no stock-based compensation expense related to the ESPP recognized during the three and six months ended June 30, 2021. As of June 30, 2022, contributions withheld from employees were not significant and recorded as a component of accrued expenses in the condensed consolidated balance sheet. As of June 30, 2022, total unrecognized compensation costs related to the ESPP was $0.1 million, which will be amortized over a weighted average vesting term of 0.4 years.

Equity-Based Compensation Expense

The following table summarizes the components of equity-based compensation expense resulting from the grant of stock options, RSUs, RSAs, the ESPP, and a secondary sales transaction entered into in February 2021, recorded in the Company's condensed consolidated statement of operations and comprehensive loss (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Research and development	$ 1,638	61	$ 2,886	$ 287
General and administrative	2,338	221	3,995	448
Total equity-based compensation	$ 3,976	282	$ 6,881	$ 735

10. Commitments and Contingencies

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 it 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.

Tax Receivable Agreement

The Company is party to a TRA with certain of the Continuing LLC Owners (Note 2). As of June 30, 2022, the Company has not recorded a liability under the TRA related to the income tax benefits originating from the exchanges of Paired Interest or non-corresponding Class A Units of Rani LLC as it is not probable that the Company will realize such tax benefits. To the extent the Company is able to realize the income tax benefits associated with the exchanges of Paired Interest or non-corresponding Class A Units of Rani LLC subject to the TRA, the TRA payable would range from zero to $20.4 million at June 30, 2022.

The amounts payable under the TRA will vary depending upon a number of factors, including the amount, character, and timing of the taxable income of the Company in the future. Should the Company determine that the payment of the TRA liability becomes probable at a future date based on new information, any changes will be recorded on the Company's condensed consolidated statement of operations and comprehensive loss at that time.

11. 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 condensed 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 it, based on 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's effective income tax rate was (0.51)% and (0.21)% for the six months ended June 30, 2022 and 2021, respectively. As a result of the exchanges for the six months ended June 30, 2022 (Note 8), the Company recorded a $18.3 million deferred tax asset related to income tax benefit associated with the basis of the net assets of Rani LLC. Because of the Company's history of operating losses, the Company believes that recognition of the deferred tax assets arising from such future income tax benefits is currently not likely to be realized and, accordingly, has recognized a full valuation allowance on its deferred tax assets.

There were no material changes to uncertain tax positions for the six months ended June 30, 2022 and 2021, and the Company does not anticipate material changes within the next 12 months.

12. 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):

	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Numerator:		
Net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc.	$ (7,624)	$ (13,847)
Denominator:		
Weighted average Class A common share outstanding—basic and diluted	24,371	22,930
Net loss per Class A common share attributable to Rani Therapeutics Holdings, Inc.—basic and diluted	$ (0.31)	$ (0.60)

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:

	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Paired Interests	24,663,752	24,663,752
Stock options	3,687,814	3,687,814
Class A Units of Rani LLC exchangeable for Class A common stock	1,387,471	1,387,471
Restricted stock units	970,100	970,100
Restricted stock awards	85,629	85,629
Shares issuable pursuant to the ESPP	30,558	30,558
	30,825,324	30,825,324

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 six months ended June 30, 2022. Therefore, they are not included in the computation of net loss per Class A common share attributable to Rani Holdings.

13. Subsequent Events

Lease

In July 2022, the first annual extension period under the RMS-ICL Service Agreement was approved by the landlord for Occupancy Services in Milpitas, California, for an additional twelve month lease term. The future aggregate minimum lease payments associated with the additional Occupancy Services total $0.4 million.

Loan Agreement

In August 2022, the Company entered into a loan and security agreement and related supplement (the "Loan Agreement") with Avenue Venture Opportunities Fund, L.P (the "Lender"). The Loan Agreement provides for term loans (the "Loans") in an aggregate principal amount up to $45.0 million. A Loan of $30.0 million is committed at closing, with $15.0 million funded immediately and $15.0 million available to be drawn between October 1, 2022 and December 31, 2022. The remaining $15.0 million of Loans ("Tranche 2") is uncommitted and is subject to certain conditions and approval by the Lender. The purpose of the Loans is for general corporate purposes.

Pursuant to the Loan Agreement, the maturity date for the Loans is August 1, 2026 (the "Maturity Date"). The Loan principal is repayable in equal monthly installments beginning September 2024 (extendable to March 2025 under certain conditions. The Loans bear interest at a variable rate per annum equal to the greater of (A) the prime rate, as published by the Wall Street Journal from time to time plus 5.60% or (B) 10.35%.

Pursuant to the Loan Agreement, beginning on the first anniversary of the closing, the Company is subject to a financial covenant that requires the Company to have at least two drug products utilizing its oral delivery technology in clinical development at all times. The financial covenant does not apply if the Company has a market capitalization above $650.0 million. The Loan Agreement also contains various covenants and restrictive provisions that, among other things, limit the Company's ability to (i) incur additional debt, guarantees or liens; (ii) pay any dividends; (iii) enter into certain change of control transactions; (iv) sell, transfer, lease, license, or otherwise dispose of certain assets; (v) make certain investments or loans; and (vi) engage in certain transactions with related persons. The Loan Agreement is collateralized by substantially all of the Company's assets, in which the Lender is granted continuing security interests.

In connection with the Loan Agreement, the Company issued to the Lender warrants to purchase 76,336 shares of the Company's Class A common stock, as may be adjusted for certain anti-dilution adjustments, dividends, stock splits, and reverse stock splits, at an exercise price per share equal to $11.79.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with our unaudited condensed consolidated financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the Securities and Exchange Commission ("SEC"). Some of the information contained in this discussion and analysis or set forth elsewhere in this document, includes forward looking statements that involve risks, uncertainties, and assumptions. Our actual results could differ materially from those discussed in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled "Risk Factors" in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2021. Please also see the section titled "Forward Looking Statements."

The following discussion contains references to calendar year 2021 and the six months ended June 30, 2022 and 2021, respectively, which represents the condensed consolidated financial results of Rani Therapeutics Holdings, Inc. (the "Company") and its subsidiaries for the year ended December 31, 2021 and the six months ended June 30, 2022 and 2021, respectively. Unless we state otherwise or the context otherwise requires, the terms "we," "us," "our," and "Rani" and similar references refers to the Company and its consolidated subsidiaries.

Overview

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

We are developing and clinically testing a drug-agnostic oral delivery platform, the RaniPill capsule, which is designed to deliver a wide variety of drugs, including large molecules such as peptides, proteins, and antibodies. The current RaniPill capsule is designed to 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 therapeutics and we are advancing development of the RaniPill HC to address biologics and drugs 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 an initial public offering ("IPO"), private placements of preferred units, issuance of convertible promissory notes, and contract revenue generated from our 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 and drugs 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.

Clinical Update

We completed the single-ascending dose portion (part 1) of our Phase 1 clinical study of RT-102, a RaniPill capsule containing a proprietary formulation of human parathyroid hormone (PTH) analog PTH (1-34) for the potential treatment of osteoporosis (“Study Part 1”). The Study Part 1 achieved all of its endpoints, with RT-102 being generally well-tolerated and demonstrating high oral bioavailability of our PTH analog. We have also initiated part 2 of the clinical study which will involve 7-day repeat dosing of RT-102 in healthy volunteers.

The single-center, open label, Study Part 1 of RT-102 was conducted in Australia, and evaluated the safety, tolerability, and pharmacokinetics (PK) of RT-102 in healthy adult female volunteers. Of the 39 participants, 15 were administered RT-102 containing a single 20µg dose of PTH and 14 were administered RT-102 containing a single 80µg dose of PTH, while a control group of 10 participants received a single 20µg subcutaneous (SC) injection of Forteo® (teriparatide), a commercial formulation of PTH for SC administration.

The endpoints of the Study Part 1 were safety and tolerability, and measurements of serum concentrations of RT-102 in healthy adult female volunteers.

Phase 1 Topline Results

Safety Data

- RT-102 was generally well-tolerated, with no RaniPill-related adverse events (AEs) observed in study participants:
  - 0% (0/15) of participants dosed with RT-102 20µg experienced drug-related AEs.
  - 14% (2/14) of participants dosed with of RT-102 80µg experienced drug-related AEs.
  - 50% (5/10) of participants dosed with 20µg of Forteo SC experienced drug-related AEs.
  - There were no serious adverse events (SAEs) noted during Study Part 1.

Per protocol, in instances where the RaniPill capsule did not exit the stomach within 7 hours, participants were excluded from the study. Based on the exclusion criteria, three participants were excluded from Study Part 1, one of whom experienced bloating, and one additional subject was excluded due to vomiting the capsule intact. The two events were assessed as probably related and possibly related to the RaniPill, respectively. In all instances, the capsule remnants passed from all participants who ingested the RaniPill capsule.

Across our two clinical studies of the RaniPill platform (Phase 1 clinical study of RT-101, a RaniPill capsule containing ocreotide, and Study Part 1 of RT-102), 81 subjects have received the RaniPill capsule and no RaniPill-related AEs were observed in participants included in the studies.

Pharmacokinetics

- Oral RT-102 (20µg and 80µg) delivered PTH with 300%-400% greater bioavailability than PTH delivered by Forteo SC (20µg).
- RT-102 20µg delivered PTH with lower, more sustained peak serum levels and higher area under the curve (AUC) than Forteo SC 20µg.

	Forteo SC 20µg	RT-102 20µg	RT-102 80µg
Cmax (pg/mL)	128 ± 20	98 ± 10	971 ± 223
Tmax (hr)	0.217	1.13	0.994
AUC (h*pg/mL)	126 ± 64	342 ± 36	2600 ± 649
Relative BA (5)	N/A	~300%	~400%

- Although Study Part 1 did not include a head-to-head comparison with abaloparatide (Tymlos®), RT-102 80µg demonstrated a PK profile similar to abaloparatide at 80µg as reported in the package insert for Tymlos. Specifically:
  - abaloparatide at 80µg has a Cmax of 812 ± 118, while RT-102 80µg had a Cmax of 971 ± 223.
  - abaloparatide at 80µg has an AUC of 1622 ± 641, while RT-102 80µg had an AUC of 2600 ± 649.

Device Performance

- Two versions of the RaniPill were used during Study Part 1: Version C, which was used in Rani's Phase 1 study of octreotide (which also utilized a Version A and Version B); and Version D, the latest iteration of the RaniPill.
- New RaniPill Version D demonstrated a higher drug delivery success rate than Version C:
  - 95% (20/21) of participants received successful drug delivery when ingesting RaniPill Version D.
  - 75% (6/8) of participants received successful drug delivery when ingesting RaniPill Version C.

The device performance analysis does not include participants excluded from the study per protocol, as drug delivery was not measured in such participants.

Rodent Study

In addition to Study Part 1 of RT-102, we also conducted a 6-week pharmacodynamic (PD) study of the RT-102 drug substance (DS) PTH (1-34) to evaluate the effect of daily RT-102 DS intraperitoneal (IP) injections on bone mineral density (BMD) in a rodent model of osteoporosis. The study compared two control groups of rodents undergoing sham surgery (N=10) and ovariectomy (OVX) (N=10) receiving no drug, to three OVX groups each dosed with 5 mcg/kg per day of either RT-102 DS (N=10), teriparatide (N=10), or abaloparatide (N=10).

The study found that, following six weeks of treatment:

- RT-102 DS increased BMD in a rat model of osteoporosis.
- RT-102 DS delivered via the RaniPill IP route of administration was biologically active comparable to SC injected PTH analogs.

Part 2 of the RT-102 Clinical Study

Part 2 of our Phase 1 clinical study of RT-102 is ongoing and will evaluate the safety, tolerability and PK of RT-102 in healthy women, 18-65 years of age, or healthy post-menopausal or surgically sterile with bilateral oophorectomy women, with once-a-day repeat dosing with 20µg dose of RT-102 for 7 days.

COVID-19 Business Impact

In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. We believe that, as a result of the COVID-19 pandemic, we have experienced 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. While we have not experienced material impacts through June 30, 2022, the extent to which the COVID-19 pandemic will further directly or indirectly impact our results of operation and financial condition has been and will continue to be driven by many factors, most of which are beyond our control and ability to forecast. Because of these uncertainties, we cannot estimate how long or to what extent COVID-19 will impact our operations.

Organizational Transactions

The Company 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 the Company 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, the Company 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 condensed consolidated financial statements of the Company.

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"), the Company 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 the Company 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. Certain individuals who continue to own interests in Rani LLC but do not hold shares of the Company's Class B common stock ("non-corresponding Class A Units") have the ability to exchange their non-corresponding Class A Units of Rani LLC for 1,387,471 shares of the Company's Class A common stock.

Recent Developments

In August 2022, we entered into a loan and security agreement and related supplement (the "Loan Agreement") with Avenue Venture Opportunities Fund, L.P (the "Lender"). The Loan Agreement provides for term loans (the "Loans") in an aggregate principal amount up to $45.0 million. A Loan of $30.0 million is committed at closing, with $15.0 million funded immediately and $15.0 million available to be drawn between October 1, 2022 and December 31, 2022. The remaining $15.0 million of Loans ("Tranche 2") is uncommitted and is subject to certain conditions and approval by the Lender. The purpose of the Loans is for general corporate purposes.

Pursuant to the Loan Agreement, the maturity date for the Loans is August 1, 2026 (the "Maturity Date"). The Loan principal is repayable in equal monthly installments beginning September 2024 (extendable to March 2025 under certain conditions. The Loans bear interest at a variable rate per annum equal to the greater of (A) the prime rate, as published by the Wall Street Journal from time to time plus 5.60% or (B) 10.35%.

Pursuant to the Loan Agreement, beginning on the first anniversary of the closing, the Company is subject to a financial covenant that requires the Company to have at least two drug products utilizing its oral delivery technology in clinical development at all times. The financial covenant does not apply if the Company has a market capitalization above $650.0 million. The Loan Agreement also contains various covenants and restrictive provisions that, among other things, limit the Company's ability to (i) incur additional debt, guarantees or liens; (ii) pay any dividends; (iii) enter into certain change of control transactions; (iv) sell, transfer, lease, license, or otherwise dispose of certain assets; (v) make certain investments or loans; and (vi) engage in certain transactions with related persons. The Loan Agreement is collateralized by substantially all of the Company's assets, in which the Lender is granted continuing security interests.

In connection with the Loan Agreement, the Company issued to the Lender warrants to purchase 76,336 shares of its Class A common stock, as may be adjusted for certain anti-dilution adjustments, dividends, stock splits, and reverse stock splits, at an exercise price per share equal to $11.79.

The additional capital provided by the Loans strengthens our financial position and balances our near-term capital requirements to support the continued advancement of the RaniPill platform, including the RaniPill HC (high-capacity) device, and ongoing development of RT-102 and the Company's product pipeline.

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 to date has been derived from evaluation agreements, which has been recorded as contract revenue. As of June 30, 2022, 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 may be executed 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 generate any 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, and facilities, 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 liability insurance, and investor and public relations.

Other Income (Expense), Net

Other income (expense), net primarily consists of interest income earned on our cash and cash equivalents.

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 the Company based on its 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 June 30, 2022, the Company held approximately 48% of the Class A Units of Rani LLC, and approximately 52% 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 condensed consolidated balance sheet as of June 30, 2022. 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 condensed consolidated statements of operations and comprehensive income or loss.

Future exchanges of Paired Interests and non-corresponding Class A Units of Rani LLC 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 June 30, 2022, there were 4,626,639 exchanges of Paired Interests and 158,051 exchanges of non-corresponding Class A Units of Rani LLC for an equal number of shares of our Class A common stock.

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 or non-corresponding Class A Units of Rani LLC 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 or non-corresponding Class A Units of Rani LLC 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.

Relationship with InCube Labs, LLC

Services Agreements

In June 2021, Rani LLC entered into a service agreement with InCube Labs, LLC ("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 the landlord 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 in San Jose, California 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. In April 2022, RMS assigned the RMS-ICL Service Agreement to Rani LLC. The RMS-ICL Service Agreement has a twelve-month term and will automatically renew for successive twelve-month periods unless terminated. Rani LLC 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 Rani LLC, respectively, as well as allocations of expenses based upon Rani LLC'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 charged to ICL under the RMS-ICL Service Agreement, which is included in the condensed consolidated statements of operations and comprehensive loss (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Research and development	$ 286	$ 123	$ 526	$ 156
General and administrative	53	184	116	366
Total	$ 339	$ 307	$ 642	$ 522

Prior to April 2022, our eligible employees were permitted to participate in ICL's 401(k) Plan ("401(k) Plan"). Participation in the 401(k) Plan was offered for the benefit of our employees, including our named executive officers, who satisfied certain eligibility requirements. In April 2022, the Company established its own 401(k) Plan, with participation offered for the benefit of the employees, including the Company's named executive officers, who satisfy certain eligibility requirements.

As of June 30, 2022, all of our facilities are owned or leased by an entity affiliated with our Chairman. Rani LLC pays for the use of these facilities through our services agreements with ICL.

Financing activity

In March 2021, an outstanding notes receivable balance totaling $1.7 million, including all accrued interest, was fully repaid by ICL.

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. During the six months ended June 30, 2022, these parties to the TRA exchanged 2,309,490 Paired Interests that resulted in tax benefits subject to the TRA.

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.

During the six months ended June 30, 2022, these parties to the Rani LLC Agreement exchanged 2,309,490 Paired Interests for the Company's Class A common stock.

Results of Operations

The results of operations presented below should be reviewed in conjunction with the condensed consolidated financial statements and notes included elsewhere in this Quarterly Report on Form 10-Q. For information with respect to recent accounting pronouncements that are of significance or potential significance to us, see "Note 2. Summary of Significant Accounting Policies" in the "Notes to the Unaudited Condensed Consolidated Financial Statements" contained in Part I, Item 1 of this Quarterly Report on Form 10-Q.

Comparison of the three months ended June 30, 2022 and 2021

The following table summarizes our results of operations (in thousands):

	Three Months Ended June 30,			
	2022	2021	Change	
Contract revenue	$ —	$ 1,961	*	%
Operating expenses				
Research and development	9,528	3,759	153.5	
General and administrative	6,319	3,460	82.6	
Total operating expenses	$ 15,847	$ 7,219	119.5	%
Loss from operations	(15,847)	(5,258)	201.4	
Other income (expense), net				
Interest income	35	13	169.2	
Interest expense and other, net	—	(169)	*	
Change in estimated fair value of preferred unit warrant	—	(70)	*	
Loss before income taxes	(15,812)	(5,484)	188.3	
Income tax expense	(154)	(1)	15,300.0	
Net loss and comprehensive loss	$ (15,966)	$ (5,485)	191.1	%
Net loss attributable to non-controlling interest	(8,342)	(5,485)	52.1	
Net loss attributable to Rani Therapeutics Holdings, Inc.	$ (7,624)	$ —	*	%

* No comparable result in the period

Contract Revenue

For the three months ended June 30, 2022, the Company did not have any contract revenue. For three months ended June 30, 2021, the Company recognized contract revenue related to the Takeda agreement of $2.0 million.

Research and Development Expenses

The following table reflects our research and development costs by nature of expense (in thousands):

	Three Months Ended June 30,	
	2022	2021
Payroll, equity-based compensation and related benefits	$ 6,206	$ 2,679
Third-party services	1,667	173
Facilities, materials and supplies	1,547	853
Other	108	54
Total	$ 9,528	$ 3,759

Research and development expenses were $9.5 million for the three months ended June 30, 2022, compared to $3.8 million for the three months ended June 30, 2021. The change in research and development expense was attributed to an increase of $3.5 million in salaries and related benefit costs due to higher headcount, which includes $1.6 million of equity-based compensation an increase in third-party services of $1.5 million, facility costs of $0.7 million and materials and laboratory supplies of $0.1 million.

General and Administrative Expenses

General and administrative expenses were $6.3 million for the three months ended June 30, 2022, compared to $3.5 million for the three months ended June 30, 2021. During the three months ended June 30, 2022, the change in general and administrative expenses was attributed to an increase of $2.7 million in salaries and related benefit costs due to higher headcount,

which includes $2.1 million of equity-based compensation. Additionally, facility costs increased $0.6 million attributable to property insurance, other costs increased $0.5 million due to patent litigation related costs, and professional and consulting services expense decreased by $0.9 million attributable to non-recurring costs associated with the Company's IPO and Organizational Transactions.

Other Income (Expense), Net

Other expense, net, was not significant for the three months ended June 30, 2022. Other expense, net, was $0.2 million for the three months ended June 30, 2021, which was primarily due to $0.1 million in interest expense on debt incurred and $0.1 million due to the increase in the estimated fair value of the Series E preferred unit warrants.

Comparison of the six months ended June 30, 2022 and 2021

The following table summarizes our results of operations (in thousands):

	Six Months Ended June 30,			
	2022	2021	Change	
Contract revenue	$ —	$ 2,717	*	%
Operating expenses				
Research and development	17,118	7,106	140.9	
General and administrative	12,509	6,067	106.2	
Total operating expenses	$ 29,627	$ 13,173	124.9	%
Loss from operations	(29,627)	(10,456)	183.3	
Other income (expense), net				
Interest income	50	60	(16.7)	
Interest expense and other, net	—	(357)	*	
Change in estimated fair value of preferred unit warrant	—	(286)	*	
Loss before income taxes	(29,577)	(11,039)	167.9	
Income tax expense	(217)	(44)	393.2	
Net loss and comprehensive loss	$ (29,794)	$ (11,083)	168.8	%
Net loss attributable to non-controlling interest	(15,947)	(11,083)	43.9	
Net loss attributable to Rani Therapeutics Holdings, Inc.	$ (13,847)	$ —	*	%

* No comparable result in the period

Contract Revenue

For the six months ended June 30, 2022, the Company did not have any contract revenue. For six months ended June 30, 2021, the Company recognized contract revenue related to the Takeda agreement of $2.7 million.

Research and Development Expenses

The following table reflects our research and development costs by nature of expense (in thousands):

	Six Months Ended June 30,	
	2022	2021
Payroll, equity-based compensation and related benefits	$ 11,629	$ 4,874
Third-party services	2,734	359
Facilities, materials and supplies	2,509	1,536
Other	246	337
Total	$ 17,118	$ 7,106

Research and development expenses were $17.1 million for the six months ended June 30, 2022, compared to $7.1 million for the six months ended June 30, 2021. The change in research and development expense was attributed to an increase of $6.8 million in salaries and related benefit costs due to higher headcount, which includes $2.9 million of equity-based compensation, an increase in third-party services of $2.4 million, facility costs of $0.7 million and materials and laboratory supplies of $0.2 million.

General and Administrative Expenses

General and administrative expenses were $12.5 million for the six months ended June 30, 2022, compared to $6.1 million for the six months ended June 30, 2021. During the six months ended June 30, 2022, the change in general and administrative expenses was attributed to an increase of $5.1 million in salaries and related benefit costs due to higher headcount, which includes $3.5 million of equity-based compensation. Additionally, facility costs increased $1.3 million attributable to property insurance, other costs increased $0.5 million due to patent litigation related costs, and professional and consulting services expense decreased by $0.5 million attributable to non-recurring costs associated with the Company's IPO and Organizational Transactions.

Other Income (Expense), Net

Other expense, net, was $0.1 million for the six months ended June 30, 2022, which was primarily due to interest income earned. Other expense, net, was $0.6 million for the six months ended June 30, 2021, which was primarily due to $0.4 million in interest expense on debt incurred and $0.3 million due to the increase in the estimated fair value of the Series E preferred unit warrants.

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 contract revenue generated from evaluation agreements. In August 2021, we raised net proceeds of $73.6 million from the IPO. As of June 30, 2022, we had cash and cash equivalents of $97.2 million. In August 2022, we entered into the Loan Agreement with the Lender for the Loans in an aggregate principal amount up to $45.0 million (See "—Recent Developments" above for a discussion of the Loan Agreement).

Since our inception, we have incurred significant losses and negative cash flows from operations. Our net losses were $29.8 million and $11.1 million for the six months ended June 30, 2022 and 2021, respectively. As of June 30, 2022, we had an accumulated deficit of $22.2 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 the Company 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.

As of June 30, 2022, we have not recorded a liability under the TRA related to the income tax benefits originating from the exchanges of Paired Interest or non-corresponding Class A Units of Rani LLC as it is not probable that the Company will realize such tax benefits. To the extent the Company is able to realize the income tax benefits associated with the exchanges of Paired Interest or non-corresponding Class A Units of Rani LLC subject to the TRA, the TRA payable would range from zero to $20.4 million at June 30, 2022.

The amounts payable under the TRA will vary depending upon a number of factors, including the amount, character, and timing of the taxable income of the Company in the future. Should the Company determine that the payment of the TRA liability becomes probable at a future date based on new information, any changes will be recorded on the Company's condensed consolidated statement of operations and comprehensive loss at that time.

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):

	Six Months Ended June 30,	
	2022	2021
Net cash used in operating activities	$ (19,688)	$ (9,676)
Net cash used in investing activities	(633)	(235)
Net cash provided by financing activities	49	6,167
Net decrease in cash and cash equivalents	$ (20,272)	$ (3,744)

Operating Activities

Net cash used in operating activities for the six months ended June 30, 2022 was $19.7 million, which was primarily attributable to a net loss of $29.8 million, partially offset by the equity-based compensation expense of $6.9 million and non-cash operating lease expense of $0.3 million. Additionally there was a decrease of $1.3 million in prepaid expenses and other assets due to amortization of director and officer liability insurance, as a result of becoming a publicly traded company, and an increase in accrued expenses of $1.5 million.

Net cash used in operating activities for the six months ended June 30, 2021 was $9.7 million, which was primarily attributable to a net loss of $11.1 million, non-cash depreciation and amortization of $0.3 million, change in the fair value of preferred unit warrant liability of $0.3 million, and equity-based compensation expense of $0.7 million.

Investing Activities

For the six months ended June 30, 2022 and 2021, net cash used in investing activities was $0.6 million and $0.2 million, respectively, consisting solely of purchases of property and equipment.

Financing Activities

For the six months ended June 30, 2022, there were no significant financing activities.

For the six months ended June 30, 2021, cash provided by financing activities was approximately $6.2 million, consisting of the proceeds from 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 deferred offering costs of $1.9 million.

Contractual Obligations and Other Commitments

Rani LLC pays for the use of our facilities through the Rani LLC-ICL Service Agreement and RMS-ICL Service Agreement. As of June 30, 2022, the future aggregate minimum lease payments associated with our service agreements with ICL for fiscal years 2022 (remaining six months) and 2023 totaled $0.6 million and $0.7 million, respectively. Subsequently, in July 2022, the Company's notice of renewal was approved by the landlord for Occupancy Services in Milpitas, California, for an additional twelve month lease term. The future aggregate minimum lease payments associated with the additional 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.

See "—Recent Developments" above for a discussion of the Loan Agreement, which we entered into in August 2022.

Critical Accounting Policies and Estimates

This discussion and analysis of financial condition and results of operation is based on our condensed 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.

For further information on our significant accounting policies, refer to our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 31, 2022.

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 Unaudited Condensed Consolidated Financial Statements" contained in Part I, Item 1 of this Quarterly Report on Form 10-Q.

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 3. 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 4. 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 Quarterly Report on Form 10-Q. 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 June 30, 2022.

Changes in Internal Control over Financial Reporting

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 three months ended June 30, 2022 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.

PART II—OTHER INFORMATION

Item 1. 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 1A. Risk Factors

Other than as described below, management believes that there have been no significant changes to the risk factors associated with our business as compared to those disclosed in Part 1, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2021, which is incorporated by reference herein.

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 European patent. We are presently involved in opposition proceedings involving four of our European patents at the EPO, all of which opposition proceedings were asserted against us by Novo Nordisk AS.

The first opposition proceeding 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 opposition proceeding 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 third opposition proceeding involves European Patent No. 3461478, which is in the same family as European Patent No. 2515992 noted above. In April 2022, the EPO issued a decision resulting in an amendment to the claims of the patent. We plan to file a notice of appeal with the EPO Appeal Board.

The fourth opposition proceeding involves European Patent No. 3653223, which is generally directed to a swallowable device. We are preparing an initial response to the EPO.

While we own numerous issued European patents and pending European patent applications, including several in the same patent families as the four 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 four 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.

Our existing indebtedness contains restrictions that limit our flexibility in operating our business. In addition, we may be required to make a prepayment or repay our outstanding indebtedness earlier than we expect.

In August 2022, we entered into a Loan and Security Agreement and related Supplement (collectively, the "Loan Agreement") with the lenders party thereto from time to time (the "Lenders"), and Avenue Capital Management II, L.P., as administrative agent and collateral agent for the Lenders (the "Agent"), which provides for term loans of up to $45.0 million in the aggregate available in two tranches. The Loan Agreement contains various covenants that limit our ability to engage in specified types of transactions. These covenants limit our ability to, among other things:

- incur or assume certain debt;
- merge or consolidate or acquire all or substantially all of the capital stock or property of another entity;
- enter into any transaction or series of related transactions that would be deemed to result in a change in control of us under the terms of the agreement;
- change the nature of our business;
- change our organizational structure or type;
- license, transfer, or dispose of certain assets;
- grant certain types of liens on our assets;
- make certain investments;
- pay cash dividends; and
- enter into material transactions with affiliates.

The restrictive covenants in the Loan Agreement could prevent us from pursuing business opportunities that we or our stockholders may consider beneficial.

A breach of any of these covenants could result in an event of default under the Loan Agreement. An event of default will also occur if, among other things, a material adverse effect in our business, operations, or condition occurs, which could potentially include a material impairment of the prospect of our repayment of any portion of the amounts we owe under the Loan Agreement. In the case of a continuing event of default under the Loan Agreement, the Lenders could elect to declare all amounts outstanding to be immediately due and payable, proceed against the collateral in which we granted the Lenders a security interest under the Loan Agreement, or otherwise exercise the rights of a secured creditor. Amounts outstanding under the Loan Agreement are secured by substantially all of our existing and future assets, including intellectual property.

At closing, we drew on $15.0 million of the $30.0 million available to us as part of the first tranche. The Loan Agreement also gives us the ability to access an additional $15.0 million, which may be drawn in an additional tranche with the approval of the Agent and the Lenders and subject to the other terms and conditions set forth in the Loan Agreement. If we are unable to satisfy these or other required conditions, or if the Agent and Lenders do not consent, as applicable, we would not be able to draw down the remaining tranche of financing and may not be able to obtain alternative financing on commercially reasonable terms or at all, which could adversely impact our business.

We may not have enough available cash or be able to raise additional funds on satisfactory terms, if at all, through equity or debt financings to repay or refinance our indebtedness at the time any such repayment is required. In such an event, we may be required to delay, limit, reduce, or terminate our product development or commercialization efforts. Our business, financial condition, and results of operations could be materially adversely affected as a result.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

The following is a list of all exhibits 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*+	Loan and Security Agreement, dated August 8, 2022, by and among the Registrant, its subsidiaries Rani Therapeutics, LLC and Rani Management Services, Inc., and Avenue Venture Opportunities Fund, L.P.
10.2*+	Supplement to the Loan and Security Agreement, dated August 8, 2022, by and among the Registrant, its subsidiaries Rani Therapeutics, LLC and Rani Management Services, Inc., and Avenue Venture Opportunities Fund, L.P.
10.3*	Form of Warrant to purchase shares of Class A common stock of Registrant, issued to Avenue Venture Opportunities Fund, L.P.
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 Quarterly Report on Form 10-Q, 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 Quarterly Report on Form 10-Q), irrespective of any general incorporation language contained in such filing.

\+ Schedules and certain portions of the exhibits omitted pursuant to Item 601(b)(2) of Regulation S-K. The Company agrees to furnish supplementally a copy of such schedules, or any section thereof, to the SEC upon request.

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: August 10, 2022

By: /s/ Talat Imran

Talat Imran
Chief Executive Officer
(Principal Executive Officer)

Date: August 10, 2022

By: /s/ Svai Sanford

Svai Sanford
Chief Financial Officer
(Principal Financial and Accounting Officer)

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 other than as described under the heading “Class B Common Stock” above, 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

LOAN AND SECURITY AGREEMENT

Dated as of August 8, 2022

among

RANI THERAPEUTICS, LLC,
a California limited liability company,

as "Borrower",

RANI MANAGEMENT SERVICES, INC.,
a Delaware corporation, and
as a guarantor

RANI THERAPEUTICS HOLDINGS, INC.,
a Delaware corporation,
as a guarantor (together with Rani Management Services, each, individually, a "Guarantor," and collectively, the "Guarantors"),

and

AVENUE VENTURE OPPORTUNITIES FUND, L.P.,
a Delaware limited partnership,
as a lender (together with other lenders from time to time party hereto, each, individually, a "Lender" and collectively, the "Lenders"), and as administrative agent and collateral agent ("in such capacity, Agent")

LOAN AND SECURITY AGREEMENT

Borrower, Guarantors, Lenders and Agent anticipate entering into one or more transactions pursuant to which each Lender agrees to make available to Borrower a loan facility governed by the terms and conditions set forth in this document and one or more Supplements executed by Borrower, Guarantors, Lenders and Agent which incorporate this document by reference. Each Supplement constitutes a supplement to and forms part of this document, and will be read and construed as one with this document, so that this document and the Supplement constitute a single agreement among the parties (collectively referred to as this **"Agreement"**).

Accordingly, the parties agree as follows:

ARTICLE 1 - INTERPRETATION

1.1 Definitions. The terms defined in Article 12 and in the Supplement will have the meanings therein specified for purposes of this Agreement.

1.2 Inconsistency. In the event of any inconsistency between the provisions of any Supplement and this document, the provisions of the Supplement will be controlling for the purpose of all relevant transactions.

ARTICLE 2 - THE COMMITMENT AND LOANS

2.1 The Commitment. Subject to the terms and conditions of this Agreement, each Lender agrees to make term loans to Borrower from time to time from the Closing Date and to and including the Termination Date in an aggregate principal amount not exceeding the Commitment. The Commitment is not a revolving credit commitment, and Borrower does not have the right to repay and reborrow hereunder, provided that Borrower may prepay the Loans as set forth in the Supplement. Each Loan requested by Borrower to be made on a single Business Day shall be for a minimum principal amount set forth in the Supplement, except to the extent the remaining Commitment is a lesser amount.

2.2 Notes Evidencing Loans; Repayment. Each Loan shall be evidenced by a separate Note payable to the order of each Lender, in the total principal amount of such Lender's pro rata share of the Loan. Principal and interest of each Loan shall be payable at the times and in the manner set forth in the Note and regularly scheduled payments thereof shall be effected by automatic debit of the appropriate funds from Borrower's Primary Operating Account as specified in the Supplement hereto. Repayment of the Loans and payment of all other amounts owed to each Lender will be paid by Borrower in the currency in which the same has been provided (i.e., United States Dollars).

2.3 Procedures for Borrowing.

(a) At least five (5) Business Days prior to a proposed Borrowing Date (or such lesser period of time as may be agreed upon by each Lender participating in the Loan in its sole discretion), Lenders shall have received from Borrower a written request for a borrowing hereunder (a **"Borrowing Request"**). Each Borrowing Request shall be in substantially the form of Exhibit "B" to the Supplement, shall be executed by a responsible executive or financial officer of Borrower, and shall state how much is requested, and shall be accompanied by such other information and documentation as Lenders may reasonably request, including the executed Note(s) for the Loan(s) covered by the Borrowing Request.

(b) No later than 1:00 p.m. Pacific Standard Time on the Borrowing Date, if Borrower has satisfied the conditions precedent in Article 4 by 9:00 a.m. Pacific Standard Time on such Borrowing Date, each Lender shall make its pro rata share of the Loan available to Borrower in immediately available funds.

2.4 Interest. Except as otherwise specified in the applicable Note and/or Supplement, Basic Interest on the outstanding principal balance of each Loan shall accrue daily at the Designated Rate from the Borrowing Date. If the outstanding principal balance of such Loan is not paid at maturity, interest shall accrue at the Default Rate until paid in full, as further set forth herein.

2.5 Intentionally Omitted.

2.6 Interest Rate Calculation. Basic Interest, along with charges and fees under this Agreement and any Loan Document, shall be calculated for actual days elapsed on the basis of a 360-day year, which results in higher interest, charge or fee payments than if a 365-day year were used. In no event shall Borrower be obligated to pay Lenders interest, charges or fees at a rate in excess of the highest rate permitted by applicable law from time to time in effect.

2.7 Default Interest. Any unpaid payments in respect of the Obligations shall bear interest from their respective maturities, whether scheduled or accelerated, at the Default Rate, Borrower shall pay such interest on demand.

2.8 Late Charges. If Borrower is late in making any scheduled payment in respect of the Obligations by more than five (5) days, then Borrower agrees to pay a late charge of five percent (5%) of the payment due, but not less than fifty dollars ($50.00) for any one such delinquent payment. This late charge may be charged by Lenders for the purpose of defraying the expenses incidental to the handling of such delinquent amounts. Borrower acknowledges that such late charge represents a reasonable sum considering all of the circumstances existing on the date of this Agreement and represents a fair and reasonable estimate of the costs that will be sustained by Lenders due to the failure of Borrower to make timely payments. Borrower further agrees that proof of actual damages would be costly and inconvenient. Such late charge shall be paid without prejudice to the right of Lenders and Agent to collect any other amounts provided to be paid or to declare a default under this Agreement or any of the other Loan Documents or from exercising any other rights and remedies of Agent or Lenders.

2.9 Lender's Records. Principal, Basic Interest and all other sums owed under any Loan Document shall be evidenced by entries in records maintained by each Lender for such purpose. Each payment on and any other credits with respect to principal, Basic Interest and all other sums outstanding under any Loan Document shall be evidenced by entries in such records. Absent manifest error, Lenders' records shall be conclusive evidence thereof.

2.10 Grant of Security Interests; Filing of Financing Statements.

(a) To secure the timely payment and performance of all of the applicable Loan Party's Obligations, each Loan Party hereby grants to Agent, for the ratable benefit of Lenders, continuing security interests in all of the Collateral. In connection with the foregoing, each Loan Party authorizes Agent to prepare and file any financing statements describing the Collateral without otherwise obtaining such Loan Party's signature or consent with respect to the filing of such financing statements. Such financing statements may indicate the Collateral as "all assets of the Debtor" or words of similar effect.

(b) In furtherance of the grant of the security interests in the Collateral pursuant to Section 2.10(a) above, each Loan Party hereby pledges and grants to Agent, for the ratable benefit of Lenders, a security interest in all the Shares, together with all proceeds and substitutions thereof, all cash, stock and other moneys and property paid thereon, all rights to subscribe for securities declared or granted in connection therewith, and all other cash and noncash proceeds of the foregoing, as security for the performance of the Obligations. On the Closing Date or at any time thereafter following Agent's request, the certificate or certificates for the Shares will be delivered to Agent, accompanied by an instrument of assignment duly executed in blank by the applicable Loan Party, unless such Shares have not been certificated. To the extent required by the terms and conditions governing the Shares, such Loan Party shall cause the books of each entity whose Shares are part of the Collateral and any transfer agent to reflect the pledge of the Shares. Upon the occurrence and during the continuance of an Event of Default hereunder, Agent may effect the transfer of any securities included in the Collateral (including but not limited to the Shares) into the name of Agent and cause new certificates representing such securities to be issued in the name of Agent or its transferee(s). The Loan Party will execute and deliver such documents, and take or cause to be taken such actions, as Agent may reasonably request to perfect or continue the perfection of Agent's security interest in the Shares. Except as provided in the following sentence, the Loan Party shall be entitled to exercise any voting rights with respect to the Shares and to give consents, waivers and ratifications in respect thereof, provided that no vote shall be cast or consent, waiver or ratification given or action taken which would constitute a violation of any of the terms of this Agreement. All such rights to vote and give consents, waivers and ratifications shall terminate upon the occurrence and continuance of an

Event of Default and Agent's written notice to the Loan Party of Agent's intent to exercise its rights and remedies under this Agreement, including this Section 2.10(b).

(c) Each Loan Party is and shall remain absolutely and unconditionally liable for the performance of its Obligations, including, without limitation, any deficiency by reason of the failure of the Collateral to satisfy all amounts due to each Lender under any of the Loan Documents.

(d) All Collateral pledged by a Loan Party under this Agreement and any Supplement shall secure the timely payment and performance of all Obligations. Except in connection with dispositions permitted by this Agreement or as otherwise expressly provided in this Agreement (in which case the Lien on the Collateral so transferred shall be automatically deemed released), no Collateral pledged under this Agreement or any Supplement shall be released until such time as all Obligations (other than inchoate indemnity obligations) have been satisfied and paid in full.

ARTICLE 3 - REPRESENTATIONS AND WARRANTIES

Each Loan Party represents and warrants that, except as set forth in the Supplement or the Schedule of Exceptions hereto, if any, as of the Closing Date and each Borrowing Date:

3.1 Due Organization.

(a) Borrower is a limited liability company duly organized and validly existing in good standing under the laws of the jurisdiction of its formation, and is duly qualified to conduct business and is in good standing in each other jurisdiction in which its business is conducted or its properties are located, except where the failure to be so qualified or in good standing could not reasonably be expected to have a Material Adverse Effect.

(b) Each Guarantor is a corporation duly organized and validly existing in good standing under the laws of the jurisdiction of its formation, and is duly qualified to conduct business and is in good standing in each other jurisdiction in which its business is conducted or its properties are located, except where the failure to be so qualified or in good standing could not reasonably be expected to have a Material Adverse Effect.

3.2 Authorization, Validity and Enforceability. The execution, delivery and performance of all Loan Documents executed by each Loan Party are within such Loan Party's powers, have been duly authorized, and are not in conflict with such Loan Party's certificate of formation or incorporation or operating agreement, or the terms of any charter or other organizational document of such Loan Party, as amended from time to time; and all such Loan Documents constitute valid and binding obligations of the applicable Loan Party, enforceable in accordance with their terms (except as may be limited by bankruptcy, insolvency and similar laws affecting the enforcement of creditors' rights in general, and subject to general principles of equity).

3.3 Compliance with Applicable Laws. Each Loan Party has complied with all licensing, permit and fictitious name requirements necessary to lawfully conduct the business in which it is engaged, and to any sales, leases or the furnishing of services by such Loan Party, including without limitation those requiring consumer or other disclosures, the noncompliance with which would have a Material Adverse Effect.

3.4 No Conflict. The execution, delivery, and performance by each Loan Party of all Loan Documents are not in conflict with any law, rule, regulation, order or directive, or any indenture or other material agreement or undertaking to which such Loan Party is a party or by which such Loan Party may be bound. Without limiting the generality of the foregoing, the issuance of the Warrant does not violate any agreement or instrument by which Parent is bound or require the consent of any holders of Parent's securities other than consents which have been obtained prior to the Closing Date.

3.5 No Litigation, Claims or Proceedings. Except as disclosed in Schedule 3.5 or otherwise disclosed to Agent as required pursuant to Section 5.1(a), there is no litigation, tax claim, proceeding or dispute pending, or, to the knowledge of such Loan Party, threatened in writing against or affecting Loan Party, its property or the conduct of its business that, in each case, could reasonably be expected to result in liability or damages to such Loan Party in excess of $200,000.

3.6 Correctness of Financial Statements. Borrower's financial statements which have been delivered to Agent fairly and accurately, in all material respects, reflect Borrower's financial condition in accordance with GAAP (except with respect to unaudited financial statements, for the absence of footnotes and subject to normal year-end adjustments) as of the latest date of such financial statements; and, since that date there has been no Material Adverse Change.

3.7 No Subsidiaries. Except as disclosed on Schedule 3.7, as of the Closing Date, no Loan Party is a majority owner of or in a control relationship with any other business entity.

3.8 Environmental Matters. To its knowledge, each Loan Party is in compliance with applicable Environmental Laws, except to the extent a failure to be in such compliance could not reasonably be expected to have a Material Adverse Effect.

3.9 No Event of Default. No Default or Event of Default has occurred and is continuing.

3.10 Full Disclosure. None of the representations or warranties made by a Loan Party in the Loan Documents as of the date such representations and warranties are made or deemed made, and none of the written statements contained in any exhibit, report, statement or certificate furnished by or on behalf of a Loan Party in connection with the Loan Documents (including disclosure materials delivered by or on behalf of Borrower to Agent prior to the Closing Date or pursuant to Section 5.2 hereof), taken as a whole, contains any untrue statement of a material fact or omits any material fact required to be stated therein or necessary to make the statements made therein, in light of the circumstances under which they are made, not misleading as of the time when made or delivered (it being recognized by Agent that projections and estimates as to future events provided by a Loan Party in good faith are not to be viewed as facts and that the actual results during the period or periods covered by any such projections and estimates may differ from projected or estimated results).

3.11 Specific Representations Regarding Collateral.

(a) Title. Except for the security interests created by this Agreement and Permitted Liens, (i) the applicable Loan Party is and will be the unconditional legal and beneficial owner of its Collateral, and (ii) the Collateral is genuine and subject to no Liens. There exist no prior collateral assignments or encumbrances of record with the U.S. Patent and Trademark Office or U.S. Copyright Office affecting any Collateral in favor of any third party, other than Permitted Liens.

(b) Rights to Payment. The names of the obligors, amount owing to the Loan Party, due dates and all other information with respect to the Rights to Payment are and will be correctly stated in all material respects in all Records relating to the Rights to Payment. The applicable Loan Party further represents and warrants, to its knowledge, that each Person appearing to be obligated on a Right to Payment has authority and capacity to contract and is bound as it appears to be.

(c) Location of Collateral. As of the Closing Date, each Loan Party's chief executive office, Inventory, Records, Equipment, and any other offices or places of business are located at the address(es) shown on the Supplement.

(d) Business Names. Other than its full corporate name, no Loan Party has conducted business using any trade names or fictitious business names except as shown on the Supplement.

3.12 Copyrights, Patents, Trademarks and Licenses.

(a) Borrower owns or is licensed or otherwise has the right to use all of the patents, trademarks, service marks, trade names, copyrights, contractual franchises, authorizations and other similar rights that are reasonably necessary for the operation of its business, without known conflict with the rights of any other Person, except as could not reasonably be expected to have a Material Adverse Effect.

(b) To Borrower's knowledge, no slogan or other advertising device, product, process, method, substance, part or other material now employed, or now contemplated to be employed, by Borrower infringes upon any rights held by any other Person, except as could not reasonably be expected to have a Material Adverse Effect.

(c) No claim or litigation regarding any of the foregoing is pending or, to Borrower's knowledge, threatened in writing, and, to Borrower's knowledge, no patent, invention, device, application, principle or any statute, law, rule, regulation, standard or code is pending or proposed which, in either case, could reasonably be expected to have a Material Adverse Effect.

3.13 Regulatory Compliance. Each Loan Party has met the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. No event has occurred resulting from Borrower's failure to comply with ERISA that is reasonably likely to result in in a Loan Party's incurring any liability that could reasonably be expected to have a Material Adverse Effect. No Loan Party is required to be registered as an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940. No Loan Party is engaged principally, or as one of its important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulations T and U of the Board of Governors of the Federal Reserve System). Each Loan Party has complied in all material respects with all the provisions of the Federal Fair Labor Standards Act.

3.14 Shares. Each Loan Party has full power and authority to create a first priority Lien on the Shares and no disability or contractual obligation exists that would prohibit such Loan Party from pledging the Shares pursuant to this Agreement. To the applicable Loan Party's knowledge, there are no subscriptions, warrants, rights of first refusal or other restrictions on transfer relative to, or options exercisable with respect to the Shares. The Shares have been and will be duly authorized and validly issued, and are fully paid and non-assessable. To the applicable Loan Party's knowledge, the Shares are not the subject of any present or threatened (in writing) suit, action, arbitration, administrative or other proceeding, and such Loan Party knows of no reasonable grounds for the institution of any such proceedings.

3.15 Compliance with Anti-Corruption Laws. No Loan Party has taken any action that would cause a violation of any anti-corruption law, including but not limited to, the Foreign Corrupt Practices Act, the United Kingdom Bribery Act, and all other applicable anti-corruption laws. No Loan Party, its employees, and, to its knowledge, its agents and representatives has, directly or indirectly, offered, paid, given, promised or authorized the payment of any money, gift or anything of value to any person acting in an official capacity for any government department, agency or instrumentality, including state-owned or controlled companies or entities, and public international organizations, as well as a political party or official thereof or candidate for political office in violation of applicable law. None of the applicable Loan Party's principals or staff are officers, employees or representatives of governments, government agencies, or government-owned or controlled enterprises.

3.16 Survival. The representations and warranties of each Loan Party as set forth in this Agreement survive the execution and delivery of this Agreement.

ARTICLE 4 - CONDITIONS PRECEDENT

4.1 Conditions to First Loan. The obligation of each Lender to make its first Loan hereunder is, in addition to the conditions precedent specified in Section 4.2 and in any Supplement, subject to the fulfillment of the following conditions and to the receipt by Lenders of the documents described below, duly executed and in form and substance satisfactory to each Lender and its counsel:

(a) Resolutions. (i) A certified copy of the resolutions of the Board of Managers of Borrower authorizing the execution, delivery and performance by Borrower of the Loan Documents; and (ii) a certified copy of the resolutions of the Board of Directors of each Guarantor authorizing the execution, delivery and performance by such Guarantor of the Loan Documents.

(b) Incumbency and Signatures. (i) A certificate of the secretary of Borrower certifying the names of the officer or officers of Borrower authorized to sign the Loan Documents, together with a sample of the true signature of

each such officer; and (ii) a certificate of the secretary of each Guarantor certifying the names of the officer or officers of such Guarantor authorized to sign the Loan Documents, together with a sample of the true signature of each such officer.

(c) Legal Opinion. The opinion of legal counsel for the Loan Parties as to such matters as Agent may reasonably request, in form and substance reasonably satisfactory to Agent and Lenders.

(d) Charter Documents. Copies of the organizational and charter documents of each Loan Party (e.g., Certificate of Formation or Incorporation and Operating Agreement), as amended through the Closing Date, certified by an officer of the applicable Loan Party as being true, correct and complete.

(e) This Agreement. Counterparts of this Agreement and the initial Supplement, with all schedules completed and attached thereto, and disclosing such information as is acceptable to Lenders.

(f) Financing Statements. Filing copies (or other evidence of filing satisfactory to Agent and its counsel) of such UCC financing statements, collateral assignments, account control agreements, and termination statements, with respect to the Collateral as Agent shall request.

(g) Intellectual Property Security Agreement. An Intellectual Property Security Agreement executed by Borrower in form and substance reasonably satisfactory to Agent.

(h) Lien Searches. UCC lien, judgment, bankruptcy and tax lien searches of each Loan Party from such jurisdictions or offices as Agent may reasonably request, all as of a date reasonably satisfactory to Agent and its counsel.

(i) Good Standing Certificate. A certificate of status or good standing of each Loan Party as of a date acceptable to Agent from the jurisdiction of such Loan Party's organization and any foreign jurisdictions where such Loan Party is qualified to do business.

(j) Warrant. The Warrant issued by Parent to each Lender exercisable for such number, type and class of shares of Parent, and for an initial exercise price as is specified therein.

(k) Insurance Certificates. Insurance certificates showing Agent as loss payee or additional insured.

(l) Other Documents. Such other documents and instruments as Agent or Lenders may reasonably request to effectuate the intents and purposes of this Agreement.

4.2 Conditions to All Loans. The obligation of each Lender to make its initial Loan and any subsequent Loan is subject to the following further conditions precedent that:

(a) No Default. No Default or Event of Default has occurred and is continuing or will result from the making of any such Loan, and the representations and warranties of each Loan Party contained in Article 3 of this Agreement and Part 3 of the Supplement are true and correct in all material respects as of the Borrowing Date of such Loan, except to the extent such representations and warranties relate solely to an earlier date (in which case the same are true and correct in all material respects as of such date).

(b) No Material Adverse Change. Since December 31, 2021, no event has occurred that has had or could reasonably be expected to have a Material Adverse Change.

(c) Borrowing Request. Borrower shall have delivered to Agent a Borrowing Request for such Loan.

(d) Note. Borrower shall have delivered an executed Note evidencing such Loan, substantially in the form attached to the Supplement as an exhibit.

(e) Supplemental Lien Filings. Each Loan Party shall have executed and delivered such amendments or supplements to this Agreement and additional Security Documents, financing statements and third party waivers as Agent may reasonably request in connection with the proposed Loan, in order to create, protect or perfect or to maintain the perfection of Agent's Liens on the Collateral.

(f) Financial Projections. Borrower shall have delivered to Agent Borrower's business plan and/or financial projections or forecasts as most recently approved by Parent's Board of Directors.

ARTICLE 5 - AFFIRMATIVE COVENANTS

During the term of this Agreement and until its performance of all Obligations (other than inchoate indemnity obligations), the applicable Loan Party will:

5.1 Notice to Agent. Promptly give written notice to Agent of:

(a) Any litigation or administrative or regulatory proceeding affecting a Loan Party where the amount claimed against such Loan Party is at the Threshold Amount or more, or where the granting of the relief requested could reasonably be expected to have a Material Adverse Effect; or of the acquisition by such Loan Party of any commercial tort claim where the amount claimed by the Loan Party equals or exceeds the Threshold Amount, including brief details of such claim and such other information as Agent may reasonably request to enable Agent to better perfect its Lien in such commercial tort claim as Collateral.

(b) Any dispute which may exist between a Loan Party and any governmental or regulatory authority that could reasonably be expected to result in a Material Adverse Effect.

(c) The occurrence of any Default or any Event of Default.

(d) Any change in the location of any of a Loan Party's places of business or Collateral at least ten (10) days in advance of such change (except for changes in location of (i) items of movable property such as laptop computers and (ii) other Collateral with a book value less than $250,000), or of the establishment of any new, or the discontinuance of any existing, place of business.

(e) Any dispute or default by a Loan Party or any other party under any joint venture, partnering, distribution, cross-licensing, strategic alliance, collaborative research or manufacturing, license or similar agreement which could reasonably be expected to have a Material Adverse Effect.

(f) Any other matter which has resulted or could reasonably be expected to result in a Material Adverse Change.

(g) Any Subsidiary a Loan Party intends to acquire or create.

5.2 Financial Statements. Deliver to Agent or cause to be delivered to Agent, in form and detail satisfactory to Lenders and Agent the following financial and other information, which the applicable Loan Party warrants shall be accurate and complete in all material respects:

(a) Monthly Financial Statements. As soon as available but no later than thirty (30) days after the end of each month, Parent's unaudited consolidated balance sheet as of the end of such period, and Parent's unaudited consolidated income statement and cash flow statement for such period and for that portion of Parent's financial reporting year ending with such period, prepared in accordance with GAAP (except for the absence of footnotes and subject to normal year-end audit adjustments) and attested by a responsible financial officer of Parent as being complete and correct in all material respects and fairly presenting Parent's consolidated financial condition and the results of Parent's consolidated operations as of the date(s) and for the period(s) covered thereby.

(b) Year-End Financial Statements. As soon as available but no later than one hundred twenty (120) days after the end of each fiscal year, a complete copy of Parent's consolidated audit report, which shall include balance

sheet, income statement, statement of changes in equity and statement of cash flows for such year, prepared in accordance with GAAP and certified by an independent certified public accountant selected by Borrower and satisfactory to Lenders (the **"Accountant"**). With the exception of a qualification as to going concerns, the Accountant's certification shall not be qualified or limited due to a restricted or limited examination by the Accountant of any material portion of Parent's records.

(c) Compliance Certificates. Simultaneously with the delivery of each set of financial statements referred to in paragraphs (a) and (b) above, a certificate of the chief financial officer of Borrower (or other executive officer) substantially in the form of Exhibit "C" to the Supplement (a **"Compliance Certificate"**) stating, among other things, whether any Default or Event of Default exists on the date of such certificate, and if so, setting forth the details thereof and the action which Borrower is taking or proposes to take with respect thereto.

(d) Government Required Reports. Within thirty (30) days after each month, after sending, issuing, making available, or filing, copies of all reports, proxy statements, and financial statements that a Loan Party sends or makes available generally to all of its stockholders (in their capacities as such), and, not later than five (5) days after actual filing or the date such filing was first due, all registration statements and reports that a Loan Party files or is required to file with the Securities and Exchange Commission, or any other equivalent governmental or regulatory authority having similar authority. Documents required to be delivered pursuant to the terms of this Section 5.2 (to the extent any such documents are included in materials otherwise filed with the Securities and Exchange Commission or other equivalent governmental or regulatory authority having similar authority) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which the Loan Party posts such documents, or provides a link thereto, on such Loan Party's website on the internet at the Loan Party's website address.

(e) Other Information. Such other statements, lists of property and accounts, budgets (as updated), sales projections, forecasts, reports, 409A valuation reports (as updated), operating plans, financial exhibits, capitalization tables (as updated) and information relating to equity and debt financings consummated after the Closing Date (including post-closing capitalization table(s)), or other information, in each case, as any Lender may from time to time reasonably request and as prepared by the applicable Loan Party in the ordinary course of business.

(f) Board Packages. In addition to the information described in Section 5.2(e), each Loan Party will promptly provide Agent with copies of all notices, minutes, consents and other materials, financial or otherwise, which such Loan Party provides to its Managing Member or Directors (collectively, **"Board Packages"**); provided, however, that no Loan Party needs to provide Agent with copies of routine Board actions, such as option and stock grants under the Loan Party's equity incentive plan in the normal course of business; and provided, further, however, that such Board Packages may be redacted to preserve the attorney-client or similar privilege or protect attorney work product, to protect highly confidential proprietary information to avoid violation of any confidentiality obligations owed to third parties, or for other similar reasons or if such redacted material relates to Lenders (or the Loan Party's strategy regarding the Loans or Lenders).

5.3 [Reserved.]

5.4 Existence. Maintain and preserve each Loan Party's existence, present form of business, and all rights and privileges the loss of which could reasonably be expected to result in a Material Adverse Effect; and keep all of the Loan Party's property in good working order and condition, ordinary wear and tear and obsolescence excepted.

5.5 Insurance. Obtain and keep in force insurance in such amounts and types as is usual in the type of business conducted by each Loan Party, with insurance carriers having a policyholder rating of not less than "A" and financial category rating of Class VII in "Best's Insurance Guide," unless otherwise approved by Agent Such insurance policies must be in form and substance reasonably satisfactory to Agent, and shall list Agent as an additional insured or loss payee, as applicable, on endorsement(s) in form reasonably acceptable to Agent. Each Loan Party shall furnish to Agent such endorsements, and upon Agent's request, copies of any or all such policies. So long as no Event of Default exists, Agent agrees to remit proceeds of insurance not to exceed $250,000 received by Agent to a Loan Party and such Loan Party shall use such proceeds for the purchase or replacement of the damaged or destroyed Collateral.

5.6 Accounting Records. Maintain adequate books, accounts and records, and prepare all financial statements in accordance with GAAP (except with respect to unaudited financial statements, for the absence of footnotes and subject to normal year-end audit adjustments), and in compliance with the regulations of any governmental or regulatory authority having jurisdiction over such Loan Party or its business where noncompliance could reasonably be expected to have a Material Adverse Effect; and permit employees or agents of Agent, upon reasonable prior notice and at such reasonable times as Agent may request, at the applicable Loan Party's expense (not to exceed $2,500 in any 12-month period unless an Event of Default has occurred and is continuing), to inspect such Loan Party's properties, and to examine, review and audit, and make copies and memoranda of the Loan Party's books, accounts and records, provided that such inspections shall not occur more than once per year unless an Event of Default exists.

5.7 Compliance with Laws. Comply with all laws (including Environmental Laws), rules, regulations applicable to, and all orders and directives of any governmental or regulatory authority having jurisdiction over, a Loan Party or its business, and with all material agreements to which the Loan Party is a party, except where the failure to so comply would not have a Material Adverse Effect.

5.8 Taxes and Other Liabilities. Pay all Indebtedness when due, except as may be contested in good faith by appropriate proceedings and for which such Loan Party shall maintain appropriate reserves; pay all federal and all other taxes and other governmental or regulatory assessments (individually or in the aggregate in excess of $50,000) before delinquency or before any penalty attaches thereto, except as may be contested in good faith by the appropriate procedures and for which such Loan Party shall maintain appropriate reserves; and timely file all federal and all other required material tax returns (subject to any applicable extensions).

5.9 Special Collateral Covenants.

(a) Maintenance of Collateral; Inspection. Do all things reasonably necessary to maintain, preserve, protect and keep all Collateral in good working order and salable condition, ordinary wear and tear excepted, deal with the Collateral in all commercially reasonable ways as are considered good practice by owners of like property, and use the Collateral lawfully and, to the extent applicable, only as permitted by the Loan Party's insurance policies. Maintain, or cause to be maintained, complete and accurate Records, in all material respects, relating to the Collateral. Upon reasonable prior notice at reasonable times during normal business hours (but in no case more than once per year if no Event of Default has occurred and is continuing), each Loan Party hereby authorizes Agent's officers, employees, representatives and agents to inspect the Collateral and to discuss the Collateral and the Records relating thereto with the Loan Party's officers and employees, and, in the case of any Right to Payment during the continuance of an Event of Default, after consultation with the Loan Party, with any Person which is or may be obligated thereon.

(b) Documents of Title. Not sign or authorize the signing of any financing statement or other document naming the Loan Party as debtor or obligor, or acquiesce or cooperate in the issuance of any bill of lading, warehouse receipt or other document or instrument of title with respect to any Collateral, except those negotiated to Agent, or those naming Agent as secured party, or if solely to create, perfect or maintain a Permitted Lien.

(c) Change in Location or Name. Without at least 10 days' prior written notice to Agent: (a) not relocate any Collateral (other than (i) moveable property such as laptop computers and (ii) other Collateral with a book value less than $250,000) or Records, its chief executive office, or establish a place of business at a location other than as specified in the Supplement; and (b) not change its name, mailing address, location of Collateral (other than (i) moveable property such as laptop computers and (ii) other Collateral with a book value less than $250,000), jurisdiction of formation or its legal structure.

(d) Decals, Markings. At the request of Required Lenders, if an Event of Default exists, firmly affix a decal, stencil or other marking to designated items of Equipment, indicating thereon the security interest of Agent.

(e) Agreement with Persons in Possession of Collateral. Use its commercially reasonable efforts to obtain and maintain such acknowledgments, consents, waivers and agreements (each a **"Waiver"**) from the owner, operator, lienholder, mortgagee, landlord or any Person in possession of tangible Collateral (other than (i) items of moveable property such as laptop computers and (ii) other Collateral with a book value less than $250,000 per location) as Agent may require, all in form and substance reasonably satisfactory to Agent. In addition, Agent shall have the right to

require the Loan Party to use its commercially reasonable efforts to provide Agent with a Waiver for any Collateral that is located in a jurisdiction that provides for statutory landlord's Liens and for any location at which the Person in possession of such Collateral has a Lien thereon. Notwithstanding anything to the contrary in this Section 5.9(e), each Loan Party and Agent acknowledge and agree that all material Intellectual Property and Records that are maintained on items of Collateral for which a Loan Party is unable to provide a Waiver also shall be maintained or backed up in a manner sufficient that Agent shall be able to have access to such Intellectual Property and Records in accordance with the exercise of Agent's rights hereunder.

(f) Certain Agreements on Rights to Payment. Other than in the ordinary course of business, not make any material discount, credit, rebate or other reduction in the original amount owing on a Right to Payment or accept in satisfaction of a Right to Payment less than the original amount thereof.

5.10 Authorization for Automated Clearinghouse Funds Transfer. (i) Authorize each Lender to initiate debit entries to Borrower's Primary Operating Account, specified in the Supplement hereto, through Automated Clearinghouse (**"ACH"**) transfers, in order to satisfy the regularly scheduled payments of principal and interest; (ii) provide each Lender at least twenty (20) days' notice of any change in Borrower's Primary Operating Account; and (iii) grant each Lender any additional authorizations necessary to begin ACH debits from a new account which becomes the Primary Operating Account.

5.11 Anti-Corruption Laws. Provide true, accurate and complete information, in all material respects, in all product orders, reimbursement requests and other communications relating to each Loan Party and its products.

ARTICLE 6 - NEGATIVE COVENANTS

During the term of this Agreement and until the performance of all Obligations (other than inchoate indemnity obligations), no Loan Party will:

6.1 Indebtedness. Be indebted for borrowed money, the deferred purchase price of property, or leases which would be capitalized in accordance with GAAP; or become liable as a surety, guarantor, accommodation party or otherwise for or upon any obligation with respect to any of the foregoing of any other Person, except:

(a) Indebtedness incurred for the acquisition of supplies, Inventory or other property or services on normal trade credit;

(b) Indebtedness incurred or assumed pursuant to one or more transactions permitted under Section 6.4;

(c) Indebtedness of a Loan Party under this Agreement;

(d) Subordinated Debt;

(e) any Indebtedness approved by Lenders prior to the Closing Date as shown on Schedule 6.1;

(f) Indebtedness secured by a lien described in clause (c) of the defined term "Permitted Liens" not to exceed $1,000,000 in aggregate principal amount outstanding at any time;

(g) Any Indebtedness arising from the endorsement of instruments in the ordinary course of business;

(h) Indebtedness incurred under corporate credit cards not to exceed $500,000 in aggregate principal amount outstanding at any time;

(i) guaranties and similar surety obligations in respect of Indebtedness permitted under this Section 6.1;

(j) Indebtedness in the form of letters of credit in an aggregate principal amount not to exceed $250,000 at any time outstanding;

(k) Indebtedness of a Loan Party issued in connection with up to $200,000,000 in convertible notes with conversion, redemption and fundamental change terms customary for convertible notes issued in public or "Rule 144A" offerings, provided that such notes (i) are unsecured, or, if secured, constitute Subordinated Debt, (ii) have a maturity date no earlier than six (6) months following the Maturity Date and (iii) are issued at a commercially reasonable rate of interest that is subject to an interest rate cap;

(l) Other indebtedness in an aggregate principal amount not to exceed $200,000 outstanding at any time;

(m) Insurance premium financing;

(n) Performance bonds, bid bonds and similar obligations incurred in the ordinary course of business;

(o) Earnouts, deferred purchase price obligations, purchase price adjustments, seller notes and similar obligations incurred in connection with Permitted Acquisitions;

(p) Indebtedness assumed in connection with Permitted Acquisitions as long as the principal amount thereof does not exceed $250,000 in the aggregate at any time outstanding;

(q) the extent constituting Indebtedness, any Investments permitted under Section 6.6 and any obligation under any dividend, purchase, redemption, acquisition or distribution with respect to any of Borrower's capital stock that is permitted under Section 6.3; and

(r) extensions, refinancings, modifications, amendments and restatements, and renewals of any of the foregoing; provided that the principal amount thereof is not increased.

6.2 Liens. Create, incur, assume or permit to exist any Lien, or grant any other Person a negative pledge that limits, restricts or prohibits the granting of any lien on a Loan Party's property in favor of Agent, on any of a Loan Party's property, except, in each case, for Permitted Liens and any negative pledge in respect of any asset subject to a Lien permitted by clause (c) of the definition of Permitted Liens. Each Loan Party, Lenders and Agent agree that this covenant is not intended to constitute a lien, deed of trust, equitable mortgage, or security interest of any kind on any of such Loan Party's real property, and this Agreement shall not be recorded or recordable. Notwithstanding the foregoing, however, violation of this covenant by a Loan Party shall constitute an Event of Default.

6.3 Dividends. Pay any dividends or purchase, redeem or otherwise acquire or make any other distribution with respect to any of the applicable Loan Party's capital stock, except (a) dividends or other distributions solely of capital stock of such Loan Party, (b) so long as no Event of Default has occurred and is continuing, repurchases of stock from employees, managers, consultants or contractors upon termination of employment or services under reverse vesting or similar repurchase plans not to exceed $250,000 in any calendar year, (c) the conversion of the Loan Party's convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof and payments of cash in lieu of the issuance of fractional shares in connection with the conversion or exercise of convertible securities, (d) the purchase, redemption or other acquisition of shares of the Loan Party's capital stock with the proceeds received from a substantially concurrent issue of new shares of its capital stock, (e) tax distributions to the holders of each Loan Party's equity interests in accordance with the terms in the Operating Agreement, (f) distributions in accordance with the terms of the Operating Agreement to the extent necessary to enable Parent to make payments required to be made by Parent under the Tax Receivable Agreement, (g) purchases of capital stock in connection with the exercise of stock options, warrants or other equity awards by way of cashless exercise or in connection with the satisfaction of withholding tax obligations, (h) purchases of fractional shares of capital stock arising out of stock dividends, splits or combinations or business combinations or in connection with exercises or conversions of options, warrants and other convertible securities, (i) dividends and distributions by any Subsidiary to a Loan Party and (j) purchases for value of any rights distributed in connection with any stockholder rights plan.

6.4 Fundamental Changes. (a) Liquidate or dissolve; (b) consummate, or permit any of a Loan Party's Subsidiaries to consummate, any Change of Control; or (c) acquire, or permit any of a Loan Party's Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person, unless such acquisition is permitted pursuant to Section 6.14(a) or a Permitted Acquisition. Notwithstanding anything to the contrary in this Section 6.4,

a Loan Party may consummate a transaction that will constitute a Change of Control so long as: (i) the Person that results from such Change of Control (the **"Surviving Entity"**) shall have executed and delivered to Agent an agreement in form and substance reasonably satisfactory to Agent, containing an assumption by the Surviving Entity of the due and punctual payment and performance of all Obligations and performance and observance of each covenant and condition of the applicable Loan Party in the Loan Documents; (ii) all such obligations of the Surviving Entity to Agent and Lenders shall be guaranteed by any Person that directly or indirectly owns or controls 50% or more of the voting stock of the Surviving Entity; (iii) immediately after giving effect to such Change of Control, no Event of Default or, event which with the lapse of time or giving of notice or both, would result in an Event of Default shall have occurred and be continuing; and (iv) the credit risk to Lenders, in each Lender's sole discretion, with respect to the Obligations and the Collateral shall not be increased; and (v) the Loan Party shall have provided to Agent notice of any Change in Control transaction no later than ten (10) days after entering into such transaction. In determining whether the proposed Change of Control would result in an increased credit risk, each Lender may consider, among other things, changes in such Loan Party's management team, employee base, access to equity markets, venture capital support, financial position and/or disposition of intellectual property rights which may reasonably be anticipated as a result of the Change of Control. In addition, (i) a Subsidiary may merge or consolidate into another Subsidiary and (ii) a Loan Party may consolidate or merge with any of such Loan Party 's Subsidiaries provided that the applicable Loan Party is the continuing or surviving Person.

6.5 Sales of Assets. Sell, transfer, lease, license or otherwise dispose of (a **"Transfer"**) any of such Loan Party's assets except (i) non-exclusive licenses of Intellectual Property in the ordinary course of business consistent with industry practice and licenses that may be exclusive (a) in certain respects, such as field of use or specific molecules or biological targets, or (b) as to territory but only as to discreet geographical areas outside of the United States of America; provided that, in each case, such licenses of Intellectual Property neither result in a legal transfer of title of the licensed Intellectual Property nor have the same effect as a sale of such Intellectual Property; (ii) Transfers of worn-out, obsolete or surplus property (each as determined by the Loan Party in its reasonable judgment); (iii) Transfers of Inventory in the ordinary course of business; (iv) Transfers constituting Permitted Liens; (v) Transfers permitted in Section 6.3, 6.4, 6.6 or 6.7 hereunder; (vi) Transfers of assets (other than Intellectual Property) for fair consideration and in the ordinary course of its business and (vii) other Transfers in an aggregate amount not to exceed $500,000 in any fiscal year.

6.6 Loans/Investments. Make or suffer to exist any loans, guaranties, advances, or investments (**"Investments"**), except:

(a) accounts receivable in the ordinary course of the Loan Party's business;

(b) Investments in domestic certificates of deposit issued by, and other domestic investments with, financial institutions organized under the laws of the United States or a state thereof, having at least One Hundred Million Dollars ($100,000,000) in capital and a rating of at least "investment grade" or "A" by Moody's or any successor rating agency;

(c) Investments in marketable obligations of the United States of America and in open market commercial paper given the highest credit rating by a national credit agency and maturing not more than one year from the creation thereof;

(d) temporary advances to cover incidental expenses to be incurred in the ordinary course of business;

(e) Investments in joint ventures, strategic alliances, licensing and similar arrangements customary in the Loan Party's industry and which do not require the Loan Party to assume or otherwise become liable for the obligations of any third party not directly related to or arising out of such arrangement or, without the prior written consent of Required Lenders, require the Loan Party to transfer ownership of non-cash assets to such joint venture or other entity;

(f) Investments in (i) one or more wholly-owned domestic Subsidiaries of such Loan Party, so long as in accordance with Section 6.14(a) of this Agreement, each such Person has been made a co-borrower hereunder or has executed and delivered to Agent an agreement, in form and substance reasonably satisfactory to Required Lenders, containing a guaranty of the Obligations, (ii) one or more wholly-owned foreign Subsidiaries of the Loan Parties up

to $500,000 per year, and (iii) foreign subsidiaries in accordance with cost-plus, transfer pricing and similar arrangements in the ordinary course for the reimbursements of operating, payroll and other expenses;

(g) Investments approved by Lenders prior to the Closing Date as shown on Schedule 6.6;

(h) Investments accepted in connection with transactions permitted under Section 6.4 or investments accepted in connection with Transfers permitted by Section 6.5;

(i) Investments consisting of deposit accounts; provided Lender has a perfected security interest therein to the extent required by 6.11;

(j) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business;

(k) non-cash loans approved by the applicable Loan Party's Managing Member or Board of Directors to employees, officers or managers or directors relating to the purchase of equity securities of the Loan Party pursuant to employee stock purchase plans or agreements approved by the Loan Party's Managing Member or Board of Directors, limited to an aggregate total of $250,000 at any time outstanding;

(l) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of a Loan Party's business;

(m) Investments permitted under Section 6.11;

(n) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions to, customers and suppliers in the ordinary course of business;

(o) Investments by wholly owned Subsidiaries in other wholly owned Subsidiaries or in a Loan Party;

(p) Permitted Acquisitions; and

(q) Other investments not otherwise permitted by this Section 6.6 not exceeding $500,000 in any fiscal year.

6.7 Transactions with Related Persons. Directly or indirectly enter into any transaction with or for the benefit of a Related Person except for (i) transactions on terms not more favorable to the Related Person than would have been obtainable in an "arms' length" dealing, (ii) sales of equity securities by a Loan Party and incurrence of Subordinated Debt for capital raising purposes, (iii) transactions that have otherwise been disclosed in writing to, and reviewed and approved by, Required Lenders (including on Schedule 6.7 hereto), (iv) employment and consulting arrangements, including stock options, employee compensation, and severance arrangements in the ordinary course of business, (v) customary reimbursement and indemnity arrangements in the ordinary course of business, and (vi) Investments permitted under clauses (d), (f), (k) or (o) of Section 6.6.

6.8 Other Business. Engage in any material line of business other than the business such Loan Party conducts as of the Closing Date and any business substantially similar or related or incidental thereto.

6.9 Financing Statements and Other Actions. Fail to execute and deliver to Agent all financing statements, notices and other documents (including, without limitation, any filings with the United States Patent and Trademark Office and the United States Copyright Office) from time to time reasonably requested by Agent to maintain a perfected first priority security interest in the Collateral in favor of Agent, subject to Permitted Liens; perform such other acts, and execute and deliver to Agent such additional conveyances, assignments, agreements and instruments, as Agent may at any time reasonably request in connection with the administration and enforcement of this Agreement or Agent's rights, powers and remedies hereunder.

6.10 Compliance. Become required to be registered as an "investment company" or controlled by an "investment company," within the meaning of the Investment Company Act of 1940, or become principally engaged in, or undertake as one of its important activities, the business of extending credit for the purpose of purchasing or carrying margin stock, or use the proceeds of any Loan for such purpose. Fail to meet the minimum funding requirements of ERISA, permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur, fail to comply in all material respects with the Federal Fair Labor Standards Act or violate any law or regulation, which noncompliance or violation could reasonably be expected to have a Material Adverse Effect or a material adverse effect on the Collateral or the priority of Agent's Lien on the Collateral, or permit any of its subsidiaries to do any of the foregoing.

6.11 Other Deposit and Securities Accounts. Maintain any Deposit Accounts or accounts holding securities owned by Loan Party except (i) Deposit Accounts and investment/securities accounts as set forth in the Supplement with respect to which an account control agreement has been executed and delivered to Agent, and (ii) other Deposit Accounts and securities/investment accounts, in each case, with respect to which the Loan Party and Agent shall have taken such action as Agent reasonably deems necessary to obtain a perfected first priority security interest therein, including without limitation the execution and delivery of an account control agreement, subject to Permitted Liens. The provisions of the previous sentence shall not apply to (i) Deposit Accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of the Loan Party's employees, (ii) Deposit Accounts subject to Liens permitted by clause (p) of the definition of Permitted Liens and (iii) accounts held with Comerica Bank as long as such accounts are closed within 45 days after the Closing Date; in each case of (i) and (ii), as identified to Agent as such (collectively, the "**Excluded Accounts**").

6.12 Prepayment of Indebtedness. Prepay, redeem or otherwise satisfy in any manner prior to the scheduled repayment thereof any Indebtedness (other than the Loans and Indebtedness permitted by Section 6.1 hereof). Notwithstanding the foregoing, the parties agrees that the conversion or exchange into a Loan Party's equity securities of any Indebtedness (other than the Loans) and the payment of cash in lieu of the issuance of fractional shares upon such conversion or exchange shall not be prohibited by this Section 6.12.

6.13 Repayment of Subordinated Debt. Repay, prepay, redeem or otherwise satisfy in any manner any Subordinated Debt, except in accordance with the terms of any subordination agreement among a Loan Party, Agent and the holder(s) of such Subordinated Debt. Notwithstanding the foregoing, Agent agrees that the conversion or exchange into the Loan Party's equity securities of any Subordinated Debt, the exchange of Borrower's equity securities for the equity securities of Parent and the payment of cash in lieu of fractional shares shall not be prohibited by this Section 6.13.

6.14 Subsidiaries.

(a) Acquire or create any Subsidiary, unless such Subsidiary becomes, at Agent's option, either a co-borrower hereunder or executes and delivers to Agent one or more agreements, in form and substance reasonably satisfactory to Required Lenders, containing a guaranty of the Obligations that is secured by first priority Liens on such Person's assets, subject to Permitted Liens. For clarity, the parties acknowledge and agree that Required Lenders shall have the exclusive right to determine whether any such Person will be made a co-borrower hereunder or a guarantor of the Obligations. Prior to the acquisition or creation of any such Subsidiary, the Loan Party shall notify Agent thereof in writing, which notice shall contain the jurisdiction of such Person's formation and include a description of such Person's fully diluted capitalization and the Loan Party's purpose for its acquisition or creation of such Subsidiary.

(b) Sell, transfer, encumber or otherwise dispose of the Loan Party's ownership interest in any Subsidiary other than Permitted Liens.

(c) Cause or permit a Subsidiary to do any of the following: (i) grant Liens on such Subsidiary's assets, except for Liens that would constitute Permitted Liens if incurred by the Loan Party and Liens on any property held or acquired by such Subsidiary in the ordinary course of its business securing Indebtedness incurred or assumed for the purpose of financing all or any part of the cost of acquiring such property; provided, that such Lien attaches solely to the property acquired with such Indebtedness and that the principal amount of such Indebtedness does not exceed one hundred percent (100%) of the cost of such property; and (ii) issue any additional Shares, except to the Loan Party or a wholly owned Subsidiary of the Loan Party.

6.15 Leases. Create, incur, assume, or suffer to exist any obligation as lessee for the rental or hire of any personal property ("**Personal Property Leases**"), except for Personal Property Leases of Equipment in the ordinary course of business that do not in the aggregate require the Loan Party to make payments (including taxes, insurance, maintenance and similar expenses which the Loan Party is required to pay under the terms of any such lease) in any calendar year in excess of $1,000,000 in aggregate amount. For the avoidance of doubt, this Section 6.15 will not be applicable to Indebtedness otherwise permitted under Section 6.1(f) of this Agreement.

6.16 Anti-Corruption Laws.

(a) Take any action that would cause a violation of any anti-corruption law, including but not limited to, the Foreign Corrupt Practices Act, the United Kingdom Bribery Act, and all other applicable anti-corruption laws.

(b) Directly or indirectly, offer, pay, give, promise or authorize the payment of any money, gift, or anything of value to any person acting in an official capacity for any government department, agency, or instrumentality, including state-owned or controlled companies or entities, and public international organizations, as well as a political party or official thereof or candidates for political office, in violation of any applicable law.

ARTICLE 7 - EVENTS OF DEFAULT

7.1 Events of Default; Acceleration. Upon the occurrence and during the continuation of any Event of Default, the obligation of each Lender to make any additional Loan shall be suspended. The occurrence and continuation of any of the following (each, an **"Event of Default"**) shall at the option of Agent, at the direction of the Required Lenders (1) make all sums of Basic Interest and principal, as well as any other Obligations and amounts owing under any Loan Documents, immediately due and payable without notice of default, presentment or demand for payment, protest or notice of nonpayment or dishonor or any other notices or demands, and (2) give Agent the right to exercise any other right or remedy provided by contract or applicable law:

(a) Borrower shall (i) fail to pay when due any principal or interest under this Agreement or any Note, or (ii) fail to pay any fees or other charges when due under any Loan Document (other than any Warrant), and such failure continues for three (3) Business Days or more after the same first becomes due; or an Event of Default as defined in any other Loan Document shall have occurred.

(b) Any representation or warranty made, or financial statement, certificate or other document provided, by a Loan Party under any Loan Document shall prove to have been false or misleading in any material respect when made or deemed made herein.

(c) If there occurs any circumstance or circumstances that could reasonably be expected to have a Material Adverse Effect.

(d) (i) Borrower shall fail to pay its debts generally as they become due; or (ii) Borrower shall commence any Insolvency Proceeding with respect to itself, an involuntary Insolvency Proceeding shall be filed against Borrower, or a custodian, receiver, trustee, assignee for the benefit of creditors, or other similar official, shall be appointed to take possession, custody or control of the properties of Borrower, and such involuntary Insolvency Proceeding, petition or appointment is acquiesced to by Borrower or is not dismissed within forty five (45) days; or (iii) the dissolution, winding up, or termination of the business or cessation of operations of Borrower (including any transaction or series of related transactions deemed to be a liquidation, dissolution or winding up of Borrower pursuant to the provisions of Borrower's charter documents); or (iv) Borrower shall take any corporate action for the purpose of effecting, approving, or consenting to any of the foregoing.

(e) Borrower shall be in default beyond any applicable period of grace or cure under any other agreement involving the borrowing of money, the purchase of property on credit, the advance of credit or any other similar monetary liability to Lenders or to any Person that permits such Person to accelerate the payment of such obligations, whether or not exercised, in an amount in excess of the Threshold Amount.

(f) Any governmental or regulatory authority shall take any judicial or administrative action, or any defined benefit pension plan maintained by Borrower shall have any unfunded liabilities, any of which, in the reasonable judgment of Required Lenders, could reasonably be expected to have a Material Adverse Effect.

(g) Except as otherwise permitted pursuant to Sections 6.4 or 6.5, any sale, transfer or other disposition of all or any material part of the assets of Borrower, including without limitation to any trust or similar entity, shall occur.

(h) Any judgment(s) singly or in the aggregate in excess of the Threshold Amount (not covered by independent third party insurance as to which liability has not been rejected by such insurance carrier) shall be entered against Borrower which remain unsatisfied, unvacated or unstayed pending appeal for twenty (20) or more days after entry thereof.

(i) Borrower shall fail to perform or observe any covenant contained in Article 6 of this Agreement.

(j) Borrower shall fail to perform or observe any covenant contained in Article 5 or elsewhere in this Agreement or any other Loan Document (other than a covenant which is dealt with specifically elsewhere in this Article 7 and other than any covenant under the Warrants) and, if capable of being cured, the breach of such covenant is not cured within 10 days after the sooner to occur of Borrower's receipt of notice of such breach from Agent or any Lender or the date on which such breach first becomes known to any officer of Borrower (the "**Notice Date**"); provided, however that if such breach is not capable of being cured within such 10-day period and Borrower timely notifies Lenders of such fact and Borrower diligently pursues such cure, then the cure period shall be extended to the date requested in Borrower's notice but in no event more than 30 days from the Notice Date; provided, further, that such 30-day opportunity to cure shall not apply in the case of any failure to perform or observe any covenant which has been the subject of a prior failure within the preceding 180 days or which is a willful and knowing breach by Borrower.

(k) If all or any portion of a Guarantor's Obligations under Article 11 of this Agreement cease for any reason to be in full force and effect, or any guarantor fails to perform any obligation hereunder, or any guarantor revokes or purports to revoke its Obligations under Article 11, or any material misrepresentation or material misstatement exists now or hereafter in any warranty or representation set forth by a Guarantor herein or in any certificate delivered to Lenders or Agent in connection herewith, or if any of the circumstances described in Sections 7.1(b) through 7.1(j) occur with respect to a Guarantor.

(l) Any Loan Document shall fail to remain in full force or effect or any action shall be taken to discontinue or to assert the invalidity or unenforceability of the obligations of a Guarantor hereunder, or a Guarantor shall fail to comply with the terms of provisions of Article 11 hereof, or a Guarantor shall deny that it has any further liability hereunder, or shall give notice to such effect.

7.2 Remedies upon Default. Upon the occurrence and during the continuance of an Event of Default, Agent shall be entitled to, at its option, exercise any or all of the rights and remedies available to a secured party under the UCC or any other applicable law, and exercise any or all of its rights and remedies provided for in this Agreement and in any other Loan Document. The obligations of each Loan Party under this Agreement shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any Obligations is rescinded or must otherwise be returned by any Lender or Agent upon, on account of, or in connection with, the insolvency, bankruptcy or reorganization of a Loan Party or otherwise, all as though such payment had not been made.

7.3 Sale of Collateral. Upon the occurrence and during the continuance of an Event of Default, Agent may, at the direction of Required Lenders, sell all or any part of the Collateral, at public or private sales, to the Lenders or a designee of Lenders, a wholesaler, retailer or investor, for cash, upon credit or for future delivery, and at such price or prices as Required Lenders may deem commercially reasonable. To the extent permitted by law, each Loan Party hereby specifically waives all rights of redemption and any rights of stay or appraisal which it has or may have under any applicable law in effect from time to time. Any such public or private sales shall be held at such times and at such place(s) as Required Lenders may determine. In case of the sale of all or any part of the Collateral on credit or for future delivery, the Collateral so sold may be retained by Agent until the selling price is paid by the purchaser, but neither Agent nor any Lender shall incur any liability in case of the failure of such purchaser to pay for the Collateral and, in case of any such failure, such Collateral may be resold. Agent may, at the direction of Required Lenders,

instead of exercising its power of sale, proceed to enforce its security interest in the Collateral by seeking a judgment or decree of a court of competent jurisdiction. Without limiting the generality of the foregoing, if an Event of Default is in existence, in each case, at the direction of Required Lenders:

(1) Subject to the rights of any third parties, Agent may license, or sublicense, whether general, special or otherwise, and whether on an exclusive or non-exclusive basis, any Copyrights, Patents or Trademarks included in the Collateral throughout the world for such term or terms, on such conditions and in such manner as Required Lenders shall in their sole discretion determine;

(2) Agent may (without assuming any obligations or liability thereunder), at any time and from time to time, enforce (and shall have the exclusive right to enforce) against any licensee or sublicensee all rights and remedies of Borrower in, to and under any Copyright Licenses, Patent Licenses or Trademark Licenses and take or refrain from taking any action under any thereof, and Borrower hereby releases Agent and each Lender from, and agrees to hold Agent and each Lender free and harmless from and against any claims arising out of, any lawful action so taken or omitted to be taken with respect thereto other than, with respect to Agent or any Lender, claims arising out of the gross negligence or willful misconduct of Agent or such Lender, respectively;

(3) Upon request by Agent, Borrower will execute and deliver to Agent a power of attorney, in form and substance reasonably satisfactory to Agent, for the implementation of any lease, assignment, license, sublicense, grant of option, sale or other disposition of a Copyright, Patent or Trademark. In the event of any such disposition pursuant to this clause 3, Borrower shall supply its know-how and expertise relating to the products or services made or rendered in connection with Patents, the manufacture and sale of the products bearing Trademarks, and its customer lists and other records relating to such Copyrights, Patents or Trademarks and to the distribution of said products, to Agent;

(4) If, at any time when Required Lenders shall determine to exercise its right to sell the whole or any part of the Shares hereunder, such Shares or the part thereof to be sold shall not, for any reason whatsoever, be effectively registered under the Securities Act (or any similar statute), then Agent may, at the direction of Required Lenders in their sole discretion (subject only to applicable requirements of law), sell such Shares or part thereof by private sale in such manner and under such circumstances as Required Lenders may deem necessary or advisable, but subject to the other requirements of this Article 7, and shall not be required to effect such registration or to cause the same to be effected. Without limiting the generality of the foregoing, in any such event, Agent may, at the direction of Required Lenders in their discretion, (i) in accordance with applicable securities laws proceed to make such private sale notwithstanding that a registration statement for the purpose of registering such Shares or part thereof could be or shall have been filed under the Securities Act (or similar statute), (ii) approach and negotiate with a single possible purchaser to effect such sale, and (iii) restrict such sale to a purchaser who is an accredited investor under the Securities Act and who will represent and agree that such purchaser is purchasing for its own account, for investment and not with a view to the distribution or sale of such Shares or any part thereof. In addition to a private sale as provided above in this Article 7, if any of the Shares shall not be freely distributable to the public without registration under the Securities Act (or similar statute) at the time of any proposed sale pursuant to this Article 7, then Agent shall not be required to effect such registration or cause the same to be effected but, in its discretion (subject only to applicable requirements of law), may require that any sale hereunder (including a sale at auction) be conducted subject to restrictions:

(A) as to the financial sophistication and ability of any Person permitted to bid or purchase at any such sale;

(B) as to the content of legends to be placed upon any certificates representing the Shares sold in such sale, including restrictions on future transfer thereof;

(C) as to the representations required to be made by each Person bidding or purchasing at such sale relating to such Person's access to financial information about a Loan Party or any of its Subsidiaries and such Person's intentions as to the holding of the Shares so sold for investment for its own account and not with a view to the distribution thereof; and

(D) as to such other matters as Agent may, in its discretion, deem necessary or appropriate in order that such sale (notwithstanding any failure so to register) may be effected in compliance with the Bankruptcy

Code and other laws affecting the enforcement of creditors' rights and the Securities Act and all applicable state securities laws.

(5) Each Loan Party recognizes that Agent may be unable to effect a public sale of any or all the Shares and may be compelled to resort to one or more private sales thereof in accordance with clause (4) above. Each Loan Party also acknowledges that any such private sale may result in prices and other terms less favorable to the seller than if such sale were a public sale and, notwithstanding such circumstances, agrees that any such private sale shall not be deemed to have been made in a commercially unreasonable manner solely by virtue of such sale being private. Agent shall be under no obligation to delay a sale of any of the Shares for the period of time necessary to permit the applicable Subsidiary to register such securities for public sale under the Securities Act, or under applicable state securities laws, even if the applicable Loan Party and/or the Subsidiary would agree to do so.

7.4 Obligations upon Default. Upon the request of Agent, at the direction of Required Lenders, after the occurrence and during the continuance of an Event of Default, the applicable Loan Party will:

(a) Assemble and make available to Agent the Collateral at such place(s) as Agent shall reasonably designate, segregating all Collateral so that each item is capable of identification; and

(b) Subject to the rights of any lessor, permit Agent, by Agent's officers, employees, agents and representatives, to enter any premises where any Collateral is located, to take possession of the Collateral, to complete the processing, manufacture or repair of any Collateral, and to remove the Collateral, or to conduct any public or private sale of the Collateral, all without any liability of Agent or any Lender for rent or other compensation for the use of the applicable Loan Party's premises.

ARTICLE 8 - SPECIAL COLLATERAL PROVISIONS

8.1 Compromise and Collection. Each Loan Party and Agent recognize that setoffs, counterclaims, defenses and other claims may be asserted by obligors with respect to certain of the Rights to Payment; that certain of the Rights to Payment may be or become uncollectible in whole or in part; and that the expense and probability of success of litigating a disputed Right to Payment may exceed the amount that reasonably may be expected to be recovered with respect to such Right to Payment. Each Loan Party hereby authorizes Agent, after and during the continuance of an Event of Default, to compromise with the obligor, accept in full payment of any Right to Payment such amount as Agent shall negotiate with the obligor, or abandon any Right to Payment, in each case, as directed by Required Lenders. Any such action by Agent shall be considered commercially reasonable so long as Required Lenders have made the determination in good faith based on information known to them at the time Agent takes any such action.

8.2 Performance of Loan Parties' Obligations. Without having any obligation to do so, upon reasonable prior notice to the applicable Loan Party, Agent may, at the direction of Required Lenders, perform or pay any obligation which such Loan Party has agreed to perform or pay under this Agreement (but has failed timely to perform or pay), including, without limitation, the payment or discharge of taxes or Liens levied or placed on or threatened against the Collateral, provided that the Lenders shall fund amounts necessary to make such payments ratably in accordance with the principal amount of the Loans held by each Lender. In so performing or paying, Agent and Required Lenders shall determine the action to be taken and the amount necessary to discharge such obligations. The applicable Loan Party shall reimburse Agent on demand for any amounts paid by Agent or any Lender pursuant to this Section, whereupon, Agent shall promptly deliver to Lenders such payments, which amounts shall constitute Obligations secured by the Collateral and shall bear interest from the date of demand at the Default Rate.

8.3 Power of Attorney. For the purpose of protecting and preserving the Collateral and Agent's and Lenders' rights under this Agreement, each Loan Party hereby irrevocably appoints Agent, with full power of substitution, as its attorney-in-fact with full power and authority, after the occurrence and during the continuance of an Event of Default, to do any act which such Loan Party is obligated to do hereunder, as directed by Required Lenders; to exercise such rights with respect to the Collateral as the Loan Party might exercise, as directed by Required Lenders; to use such Inventory, Equipment, Fixtures or other property as the Loan Party might use, as directed by Required Lenders; to enter the Loan Party's premises; to give notice of Agent's security interest in, and to collect the Collateral, as directed by Required Lenders; and before or after Default, to the extent that the Loan Party has failed to do so after Lender's request (unless an Event of Default has occurred), to execute and file in the Loan Party's name any financing

statements, amendments and continuation statements, account control agreements or other Security Documents necessary or desirable to create, maintain, perfect or continue the perfection of Agent's security interests in the Collateral. Each Loan Party hereby ratifies all that Agent shall lawfully do or cause to be done by virtue of this appointment.

8.4 Authorization for Agent to Take Certain Action. The power of attorney created in Section 8.3 is a power coupled with an interest and shall be irrevocable. The powers conferred on Agent hereunder and thereunder are solely to protect its interests in the Collateral and shall not impose any duty upon Agent to exercise such powers. Agent shall be accountable only for amounts that it actually receives as a result of the exercise of such powers and in no event shall Agent or any of its directors, officers, employees, agents or representatives be responsible to any Loan Party for any act or failure to act, except for gross negligence or willful misconduct. After the occurrence and during the continuance of an Event of Default, Agent may exercise this power of attorney without notice to or assent of the Loan Party, in the name of the Loan Party, or in Agent's own name, from time to time in Agent's sole discretion and at the Loan Party's expense. To further carry out the terms of this Agreement, after the occurrence and during the continuance of an Event of Default, Agent may, at the direction of Required Lenders:

(a) Execute any statements or documents or take possession of, and endorse and collect and receive delivery or payment of, any checks, drafts, notes, acceptances or other instruments and documents constituting Collateral, or constituting the payment of amounts due and to become due or any performance to be rendered with respect to the Collateral.

(b) Sign and endorse any invoices, freight or express bills, bills of lading, storage or warehouse receipts; drafts, certificates and statements under any commercial or standby letter of credit relating to Collateral; assignments, verifications and notices in connection with Accounts; or any other documents relating to the Collateral, including without limitation the Records.

(c) Use or operate Collateral or any other property of a Loan Party for the purpose of preserving or liquidating Collateral.

(d) File any claim or take any other action or proceeding in any court of law or equity or as otherwise deemed appropriate by Agent for the purpose of collecting any and all monies due or securing any performance to be rendered with respect to the Collateral.

(e) Commence, prosecute or defend any suits, actions or proceedings or as otherwise deemed appropriate by Agent for the purpose of protecting or collecting the Collateral. In furtherance of this right, upon the occurrence and during the continuance of an Event of Default, Agent may apply for the appointment of a receiver or similar official to operate the Loan Party's business.

(f) Prepare, adjust, execute, deliver and receive payment under insurance claims, and collect and receive payment of and endorse any instrument in payment of loss or returned premiums or any other insurance refund or return, and apply such amounts at Agent's sole discretion, toward repayment of the Obligations or replacement of the Collateral.

8.5 Application of Proceeds. Any Proceeds and other monies or property received by Agent pursuant to the terms of this Agreement or any Loan Document may be applied as follows:

First, to Agent, the aggregate amount of all documented costs, expenses, indemnities and other amounts required to be reimbursed to Agent, in its capacity as such, until paid in full;

Second, to Agent, for the ratable benefit of Lenders (in accordance with the portion funded by each Lender), the aggregate amount of all Obligations arising on account of payments made by Agent in accordance with Section 8.2, until repaid in full;

Third, to Lenders, ratably in accordance with principal amount of the Loans held by each Lender, an amount equal to the aggregate costs, expenses, indemnities or other amounts then required to be reimbursed to such Lender, until paid in full;

Fourth, to Lenders, ratably in accordance with aggregate amount of any fees, premiums or similar payments due to each Lender in respect of the Loans held by such Lender, an amount equal to the aggregate fees, premiums or other similar such payments due to such Lender in respect of the Loans, until paid in full;

Fifth, to Lenders, ratably in accordance with accrued and unpaid interest in respect of the Loans and the other Obligations due to each Lender, an amount equal to the aggregate accrued and unpaid interest on the Loans and other Obligations then due, until paid in full;

Sixth, to Lenders, ratably in accordance outstanding principal due to each Lender in respect of the Loans, an amount equal to the aggregate principal outstanding in respect of the Loans then due, until paid in full;

Seventh, to Agent and each Lender, ratably in accordance with any other Obligations due to such Lender, an amount equal to all other Obligations due and payable to Agent and each Lender, until paid in full; and

Last, the balance, if any, to the applicable Loan Party or as otherwise required by applicable law.

8.6 Deficiency. If the Proceeds of any disposition of the Collateral are insufficient to cover all costs and expenses of such sale and the payment in full of all the Obligations, plus all other sums required to be expended or distributed by Agent or any Lender, then the applicable Loan Party shall be liable for any such deficiency.

8.7 Agent Transfer. Upon the transfer of all or any part of the Obligations, Agent may transfer all or part of the Collateral and shall be fully discharged thereafter from all liability and responsibility with respect to such Collateral so transferred, and the transferee shall be vested with all the rights and powers of Agent hereunder with respect to such Collateral so transferred, but with respect to any Collateral not so transferred, Agent shall retain all rights and powers hereby given.

8.8 Agent's Duties.

(a) Agent shall use reasonable care in the custody and preservation of any Collateral in its possession. Without limitation on other conduct which may be considered the exercise of reasonable care, Agent shall be deemed to have exercised reasonable care in the custody and preservation of such Collateral if such Collateral is accorded treatment substantially equal to that which Agent accords its own property, it being understood that Agent shall not have any responsibility for ascertaining or taking action with respect to calls, conversions, exchanges, maturities, declining value, tenders or other matters relative to any Collateral, regardless of whether Agent has or is deemed to have knowledge of such matters; or taking any necessary steps to preserve any rights against any Person with respect to any Collateral. Under no circumstances shall Agent be responsible for any injury or loss to the Collateral, or any part thereof, arising from any cause beyond the reasonable control of Agent .

(b) Agent may at any time deliver the Collateral or any part thereof to the applicable Loan Party and the receipt of the Loan Party shall be a complete and full acquittance for the Collateral so delivered, and Agent shall thereafter be discharged from any liability or responsibility therefor.

(c) Neither Agent, nor any of its directors, officers, employees, agents, attorneys or any other person affiliated with or representing Agent shall be liable for any claims, demands, losses or damages, of any kind whatsoever, made, claimed, incurred or suffered by a Loan Party or any other party through the ordinary negligence of Agent, or any of its directors, officers, employees, agents, attorneys or any other person affiliated with or representing Agent.

8.9 Termination of Security Interests and Loan Documents. Upon the payment in full of the Obligations (other than inchoate indemnity obligations) and satisfaction of all the Loan Parties' obligations (other than inchoate indemnity obligations) under this Agreement and the other Loan Documents (other than any Warrant), and if Lenders have no further obligations to make Loans in connection with their Commitments, the security interest granted hereby shall terminate, all rights to the Collateral shall revert to the applicable Loan Party and this Agreement and the other

Loan Documents shall terminate; provided that (i) those obligations, liabilities, covenants and terms that are expressly specified herein and in any other Loan Document as surviving that respective agreement's termination, including without limitation, the applicable Loan Party's indemnity obligations set forth in this Agreement, shall continue to survive notwithstanding anything to the contrary set forth herein, and (ii) nothing set forth herein shall affect or be deemed to affect those obligations, liabilities, covenants and terms set forth in any warrant instrument issued to a Lender or set forth in any other equity securities or convertible debt securities of a Loan Party acquired by Lenders in connection with this Agreement. Upon any such termination, Agent shall return all Collateral in its possession or control to the applicable Loan Party and, at such Loan Party's expense, execute and deliver to such Loan Party such documents as the Loan Party shall reasonably request to evidence such termination.

ARTICLE 9 - GENERAL PROVISIONS

9.1 Notices. Any notice given by any party under any Loan Document shall be in writing and personally delivered, sent by overnight courier, or United States mail, postage prepaid, or sent by facsimile, or other authenticated message, charges prepaid, to the other party's or parties' addresses shown on the Supplement. Each party may change the address or facsimile number to which notices, requests and other communications are to be sent by giving written notice of such change to each other party. Notice given by hand delivery shall be deemed received on the date delivered; if sent by overnight courier, on the next Business Day after delivery to the courier service; if by first class mail, on the third Business Day after deposit in the U.S. Mail; and if by facsimile, on the date of transmission.

9.2 Binding Effect. The Loan Documents shall be binding upon and inure to the benefit of Borrower, Guarantors, Lenders, Agent and their respective successors and assigns; provided, however, that no Loan Party may assign or transfer its rights or obligations under any Loan Document except as permitted under Section 6.4 or in accordance with a Permitted Acquisition. Each Lender reserves the right to sell, assign, transfer, negotiate or grant participations in all or any part of, or any interest in, such Lender's rights and obligations under the Loan Documents provided that, so long as no Event of Default has occurred and is continuing, neither Lender shall assign any of such rights or obligations to any competitor of Borrower. In connection with any of the foregoing, Lenders and Agent may disclose all documents and information which Lenders and Agent now or hereafter may have relating to the Loans, the Loan Parties, or their business, provided that any Person who receives such information shall have agreed in writing in advance to maintain the confidentiality of such information on terms no less favorable to the Loan Parties than are set forth in Section 9.13 hereof.

9.3 No Waiver. Any waiver, consent or approval by Lenders of any Event of Default or breach of any provision, condition, or covenant of any Loan Document must be in writing and shall be effective only to the extent set forth in writing. No waiver of any breach or default shall be deemed a waiver of any later breach or default of the same or any other provision of any Loan Document. No failure or delay on the part of Agent or any Lender in exercising any power, right, or privilege under any Loan Document shall operate as a waiver thereof, and no single or partial exercise of any such power, right, or privilege shall preclude any further exercise thereof or the exercise of any other power, right or privilege. Lenders have the right at their sole option to continue to accept interest and/or principal payments due under the Loan Documents after default, and such acceptance shall not constitute a waiver of said default or an extension of the maturity of any Loan unless Lenders agree otherwise in writing.

9.4 Rights Cumulative. All rights and remedies existing under the Loan Documents are cumulative to, and not exclusive of, any other rights or remedies available under contract or applicable law.

9.5 Unenforceable Provisions. Any provision of any Loan Document executed by a Loan Party which is prohibited or unenforceable in any jurisdiction, shall be so only as to such jurisdiction and only to the extent of such prohibition or unenforceability, but all the remaining provisions of any such Loan Document shall remain valid and enforceable.

9.6 Accounting Terms. Except as otherwise provided in this Agreement, accounting terms and financial covenants and information shall be determined and prepared in accordance with GAAP (except for (i) non-compliance with FAS 123R in monthly reporting and (ii) with respect to unaudited financial statements for the absence of footnotes and subject to year-end audit adjustments, provided that if at any time any change in GAAP would affect the computation of any covenant requirement set forth in any of the Loan Documents, and either Borrower or Lender shall so request, Borrower and Lender shall negotiate in good faith to amend such ratio or covenant requirement to preserve

the original intent thereof in light of such change in GAAP; provided, further, that, until so amended, such covenant requirement shall continue to be computed in accordance with GAAP prior to such change therein.) Notwithstanding the foregoing, any obligations of a Person that are or would have been treated as operating leases for purposes of GAAP prior to the issuance by the Financial Accounting Standards Board on February 25, 2016 of an Accounting Standards Update (the "ASU") shall continue to be accounted for as operating leases for purposes of all financial definitions, calculations and covenants for purpose of this Agreement (other than for purposes of the delivery of financial statements prepared in accordance with GAAP) whether or not such operating lease obligations were in effect on such date, notwithstanding the fact that such obligations are required in accordance with the ASU (on a prospective or retroactive basis or otherwise) to be treated as capitalized lease obligations in accordance with GAAP.

9.7 Indemnification; Exculpation. Each Loan Party shall pay and protect, defend and indemnify each Lender, Agent and each Lender's and Agent's employees, officers, directors, shareholders, affiliates, correspondents, agents and representatives (other than Lender, collectively **"Indemnified Parties"**) against, and hold each Lender, Agent and each of such Indemnified Parties harmless from, all claims, actions, proceedings, liabilities, damages, losses, expenses (including, without limitation, attorneys' fees and costs) and other amounts incurred by each Lender, Agent and each of such Indemnified Parties, arising from (i) the matters contemplated by this Agreement or any other Loan Documents, (ii) any dispute between a Loan Party and a third party, or (iii) any contention that the Loan Party has failed to comply with any law, rule, regulation, order or directive applicable to such Loan Party's business; **provided, however**, that this indemnification shall not apply to any of the foregoing to the extent incurred as the result of any Lender's, Agent's or any of such Indemnified Parties' gross negligence or willful misconduct. This indemnification shall survive the payment and satisfaction of all of the Loan Parties' Obligations to Lenders.

9.8 Reimbursement. The Loan Parties shall reimburse each Lender and Agent for all costs and expenses, including without limitation reasonable attorneys' fees and disbursements expended or incurred by each Lender and Agent in any arbitration, mediation, judicial reference, legal action or otherwise in connection with (a) the preparation and negotiation of the Loan Documents, (b) the amendment and enforcement of the Loan Documents, including without limitation during any workout, attempted workout, and/or in connection with the rendering of legal advice as to each Lender's and Agent's rights, remedies and obligations under the Loan Documents, (c) collecting any sum which becomes due to each Lender under any Loan Document, (d) any proceeding for declaratory relief, any counterclaim to any proceeding, or any appeal, or (e) the protection, preservation or enforcement of any rights of Lenders or Agent under the Loan Documents. For the purposes of this section, attorneys' fees shall include, without limitation, fees incurred in connection with the following: (1) contempt proceedings; (2) discovery; (3) any motion, proceeding or other activity of any kind in connection with an Insolvency Proceeding; (4) garnishment, levy, and debtor and third party examinations; and (5) post-judgment motions and proceedings of any kind, including without limitation any activity taken to collect or enforce any judgment. All of the foregoing costs and expenses shall be payable upon demand by any Lender or Agent, and if not paid within forty-five (45) days of presentation of invoices shall bear interest at the Default Rate.

9.9 Execution in Counterparts; Electronic Signatures. This Agreement and the other Loan Documents may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. This Agreement and each of the other Loan Documents may be executed by electronic signatures. Borrower, Guarantors, Lenders and Agent expressly agree to conduct the transactions contemplated by this Agreement and the other Loan Documents by electronic means (including, without limitation, with respect to the execution, delivery, storage and transfer of this Agreement and each of the other Loan Documents by electronic means and to the enforceability of electronic Loan Documents). Delivery of an executed signature page to this Agreement and each of the other Loan Documents by facsimile or other electronic mail transmission (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) shall be effective as delivery of a manually executed counterpart hereof and thereof, as applicable. The words "execution," "signed," "signature" and words of like import herein shall be deemed to include electronic signatures or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

9.10 Entire Agreement. The Loan Documents are intended by the parties as the final expression of their agreement and therefore contain the entire agreement among the parties and supersede all prior understandings or

agreements concerning the subject matter hereof. This Agreement may be amended only in a writing signed by Borrower, Guarantors, each Lender and Agent.

9.11 Governing Law and Jurisdiction.

(a) THIS AGREEMENT AND THE LOAN DOCUMENTS SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF CALIFORNIA.

(b) ANY LEGAL ACTION OR PROCEEDING WITH RESPECT TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT MAY BE BROUGHT IN THE COURTS OF THE STATE OF CALIFORNIA OR OF THE UNITED STATES FOR THE NORTHERN DISTRICT OF CALIFORNIA, AND BY EXECUTION AND DELIVERY OF THIS AGREEMENT, EACH OF BORROWER, GUARANTORS, LENDERS AND AGENT CONSENTS, FOR ITSELF AND IN RESPECT OF ITS PROPERTY, TO THE NON-EXCLUSIVE JURISDICTION OF THOSE COURTS. EACH OF BORROWER, GUARANTORS, LENDERS AND AGENT IRREVOCABLY WAIVES ANY OBJECTION, INCLUDING ANY OBJECTION TO THE LAYING OF VENUE OR BASED ON THE GROUNDS OF FORUM NON CONVENIENS, WHICH IT MAY NOW OR HEREAFTER HAVE TO THE BRINGING OF ANY ACTION OR PROCEEDING IN SUCH JURISDICTION IN RESPECT OF THIS AGREEMENT OR ANY DOCUMENT RELATED HERETO. BORROWER, GUARANTORS, LENDERS AND AGENT EACH WAIVE PERSONAL SERVICE OF ANY SUMMONS, COMPLAINT OR OTHER PROCESS, WHICH MAY BE MADE BY ANY OTHER MEANS PERMITTED BY CALIFORNIA LAW.

9.12 Waiver of Jury Trial. TO THE EXTENT NOT PROHIBITED BY APPLICABLE LAW, BORROWER, GUARANTORS, LENDERS AND AGENT EACH WAIVES ITS RESPECTIVE RIGHTS TO A TRIAL BY JURY OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF OR RELATED TO THIS AGREEMENT, THE OTHER LOAN DOCUMENTS, OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY, IN ANY ACTION, PROCEEDING OR OTHER LITIGATION OF ANY TYPE BROUGHT BY ANY OF THE PARTIES AGAINST ANY OTHER PARTY OR ANY PARTICIPANT OR ASSIGNEE, WHETHER WITH RESPECT TO CONTRACT CLAIMS, TORT CLAIMS, OR OTHERWISE. BORROWER, GUARANTORS, LENDERS AND AGENT EACH AGREES THAT ANY SUCH CLAIM OR CAUSE OF ACTION SHALL BE TRIED BY A COURT TRIAL WITHOUT A JURY. WITHOUT LIMITING THE FOREGOING, THE PARTIES FURTHER AGREE THAT THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY IS WAIVED BY OPERATION OF THIS SECTION AS TO ANY ACTION, COUNTERCLAIM OR OTHER PROCEEDING WHICH SEEMS, IN WHOLE OR IN PART, TO CHALLENGE THE VALIDITY OR ENFORCEABILITY OF THIS AGREEMENT OR THE OTHER LOAN DOCUMENTS OR ANY PROVISION HEREOF OR THEREOF. THIS WAIVER SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS. WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, including to the extent any Lender or Agent seeks to enforce any judgment or takes any legal action in any other jurisdiction to realize upon the Collateral, the parties hereto agree that, with respect to any actions and proceedings with respect to which the above jury trial waiver is not enforceable, such disputes shall be decided by a reference to a private judge, mutually selected by the parties, including, if applicable, in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1, inclusive. This Section 9.12 shall survive the termination of this Agreement.

9.13 Confidentiality. Each Lender and Agent agrees to hold in confidence all confidential information that it receives from a Loan Party pursuant to the Loan Documents, except for disclosure as shall be reasonably required and, in each case, subject to the same confidentiality obligations set forth herein: (a) to legal counsel and accountants for each Lender and Agent; (b) to other professional advisors to each Lender and Agent (to the extent that such professional advisors are subject to the same obligations of confidentiality as set forth herein); (c) to regulatory officials having jurisdiction over each Lender and Agent to the extent required by law; (d) to each Lender's and Agent's investors and prospective investors (to the extent that such investors or prospective investors are subject to the same confidentiality obligation set forth herein), and in each Lender's and Agent's SEC filings as required by law, but only to the extent such disclosure is required under applicable law; (e) as required by law or legal process or in connection with any legal proceeding to which Lenders, Agent and a Loan Party are adverse parties; (f) in connection with a disposition or proposed disposition of any or all of each Lender's rights hereunder to any assignee or participant

(to the extent that any transferee or proposed transferee is subject to the same confidentiality obligation set forth herein); (g) to each Lender's and Agent's subsidiaries or Affiliates in connection with their business with a Loan Party (subject to the same confidentiality obligation set forth herein); (h) as required by valid order of a court of competent jurisdiction, administrative agency or governmental body, or by any applicable law, rule, regulation, subpoena, or any other administrative or legal process, or by applicable regulatory or professional standards, including in connection with any judicial or other proceeding involving any Lender or Agent relating to this Agreement and the transactions contemplated hereby; and (i) as required in connection with each Lender's and Agent's examination or audit. For purposes of this section, each Lender, Agent and Loan Party agree that "confidential information" shall mean any information regarding or relating to a Loan Party other than: (i) information which is or becomes generally available to the public other than as result of a disclosure by such Lender or Agent in violation of this section, (ii) information which becomes available to any Lender or Agent from any other source (other than a Loan Party) which such Lender or Agent does not know is bound by a confidentiality agreement with respect to the information made available, and (iii) information that such Lender or Agent knows on a non-confidential basis prior to a Loan Party disclosing it to such Lender or Agent. In addition, Borrower agrees that each Lender and Agent may use Borrower's name, logo and/or trademark in connection with certain promotional materials that each Lender and Agent may disseminate to the public, including, but are not limited to, brochures, internet website, press releases and any other materials relating to the fact that each Lender and Agent has a financing relationship with Borrower.

ARTICLE 10 - AGENCY

10.1 Appointment. Each Lender hereby irrevocably appoints Avenue Venture Opportunities Fund, L.P. to act on its behalf as the administrative agent hereunder and under the other Loan Documents and authorizes the Agent to take such actions on its behalf and to exercise such powers as are delegated to the Agent by the terms hereof or thereof, together with such actions and powers as are reasonably incidental thereto.

10.2 Indemnity. Each Lender agrees to indemnify the Agent in its capacity as such (to the extent not reimbursed by a Loan Party and without limiting the obligation of a Loan Party to do so), according to its respective Commitment percentage in effect on the date on which indemnification is sought under this Section 10.2, from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind whatsoever that may at any time be imposed on, incurred by or asserted against the Agent in any way relating to or arising out of, this Agreement, a Supplement, any of the other Loan Documents or any documents contemplated by or referred to herein or therein or the transactions contemplated hereby or thereby or any action taken or omitted by the Agent under or in connection with any of the foregoing. The agreements in this Section shall survive the payment of each Loan and all other amounts payable hereunder. Agent shall not be liable for any action taken or not taken by it (i) with the consent or at the request of any Lender or as Agent shall believe in good faith shall be necessary, under the circumstances or (ii) in the absence of its own gross negligence or willful misconduct.

10.3 Agent in Its Individual Capacity. The Person serving as the Agent hereunder shall have the same rights and powers in its capacity as a Lender as any other Lender and may exercise the same as though it were not the Agent and the term "Lender" shall, unless otherwise expressly indicated or unless the context otherwise requires, include each such Person serving as Agent hereunder in its individual capacity.

10.4 Exculpatory Provisions. The Agent shall have no duties or obligations except those expressly set forth herein and in the other Loan Documents. Without limiting the generality of the foregoing, the Agent shall not:

(a) be subject to any fiduciary or other implied duties, regardless of whether any default or any Event of Default has occurred and is continuing;

(b) have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby or by the other Loan Documents that Agent is required to exercise as directed in writing by Required Lenders, provided that the Agent shall not be required to take any action that, in its opinion or the opinion of its counsel, may expose the Agent to liability or that is contrary to any Loan Document or applicable law; and

(c) except as expressly set forth herein and in the other Loan Documents, have any duty to disclose, and the Agent shall not be liable for the failure to disclose, any information relating to the Borrower or any of its Affiliates that is communicated to or obtained by any Person serving as Agent or any of its Affiliates in any capacity.

10.5 Duties. Agent shall not be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement or any other Loan Document, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith or therewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default or Event of Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document or (v) the satisfaction of any condition set forth in Section 4 or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to the Agent.

10.6 Reliance by Agent. Agent may rely, and shall be fully protected in acting, or refraining to act, upon, any resolution, statement, certificate, instrument, opinion, report, notice, request, consent, order, bond or other paper or document that it has no reason to believe to be other than genuine and to have been signed or presented by the proper party or parties or, in the case of cables, telecopies and telexes, to have been sent by the proper party or parties. In the absence of its gross negligence or willful misconduct, Agent may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any certificates or opinions furnished to Agent and conforming to the requirements of the Loan Agreement or any of the other Loan Documents. Agent may consult with counsel, and any opinion or legal advice of such counsel shall be full and complete authorization and protection in respect of any action taken, not taken or suffered by Agent hereunder or under any Loan Documents in accordance therewith. Agent shall have the right at any time to seek instructions concerning the administration of the Collateral from any court of competent jurisdiction. Agent shall not be under any obligation to exercise any of the rights or powers granted to Agent by this Agreement and the other Loan Documents at the request or direction of Lenders unless Agent shall have been provided by Lenders with adequate security and indemnity against the costs, expenses and liabilities that may be incurred by it in compliance with such request or direction.

10.7 Collateral Agent. The Agent shall also act as the "collateral agent" under the Loan Documents, and each of the Lenders hereby irrevocably appoints and authorizes the Agent to act as the agent of such Lender for purposes of acquiring, holding and enforcing any and all Liens on Collateral granted by a Loan Party to secure any of the Obligations. Each Lender hereby authorizes Agent, on behalf of and for the ratable benefit of Lenders, in its capacity as collateral agent, to enter into any of the Loan Documents as secured party for purposes of acquiring, holding and enforcing all Liens on Collateral (and any other collateral from time to time securing the Obligations), and as Agent for and representative of Lender thereunder, and each Lender agrees to be bound by the terms of each such document. All powers, rights and remedies under the Loan Documents may be exercised solely by Agent for the benefit of Lenders and Agent in accordance with the terms thereof. In the event of a foreclosure on any of the Collateral pursuant to a public or private sale, either Agent or any Lender may be the purchaser of any or all of such Collateral at any such sale and Agent, as agent for and representative of Lenders (but not any Lender or Lenders in its or their respective individual capacities unless Required Lenders shall otherwise agree in writing) shall be entitled (subject to the proviso at the end of this sentence), for the purpose of bidding and making settlement or payment of the purchase price for all or any portion of the Collateral sold at any such public sale, to use and apply any of the Obligations as a credit on account of the purchase price for any Collateral payable by Agent at such sale; provided however, that neither Agent nor any Lender shall "credit bid" at any foreclosure and/or other public or private sale absent the consent of the Required Lenders. Without limiting the generality of the foregoing, Agent is hereby expressly authorized to execute any and all documents (including releases) that bind Lenders with respect to (i) the Collateral and the rights of Lenders with respect thereto, as contemplated by and in accordance with the provisions of the Loan Documents, and (ii) any other subordination agreement with respect to any Subordinated Debt.

10.8 Successor Agents. Agent may resign upon thirty (30) days' written notice to the Lenders and Borrower. If Agent shall resign in its capacity under this Agreement and the other Loan Documents, then the Required Lenders shall appoint a successor agent, whereupon such successor agent shall succeed to the rights, powers and duties of Agent in its capacity, and the term "Agent" shall mean such successor agent effective upon such appointment and approval, and the former Agent's rights, powers and duties as Agent in its capacity shall be terminated, without any other or further act or deed on the part of such former Agent or any of the parties to this Agreement or any Lender. If no applicable successor agent has accepted appointment as such Agent in its capacity by the date that is twenty (20)

days following such retiring Agent's notice of resignation, such retiring Agent's resignation shall nevertheless thereupon become effective and the Lenders shall assume and perform all of the duties of such Agent hereunder until such time, if any, as the Required Lenders appoint a successor agent as provided for above. After any retiring Agent's resignation as Agent, the provisions of this Section 10 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was an Agent under this Agreement and the other Loan Documents.

ARTICLE 11 - GUARANTY

11.1 Guaranty. Each Guarantor hereby absolutely and unconditionally guarantees, jointly and severally (as applicable), as a guaranty of payment and performance and not merely as a guaranty of collection, to Lenders and Agent the prompt payment in full when due, whether at stated maturity, by required prepayment, upon acceleration, demand or otherwise, and at all times thereafter, of any and all of the Obligations, whether for principal, interest, premiums, fees, indemnities, damages, costs, expenses or otherwise, and whether arising hereunder or under any other Loan Document (other than the Warrant), including all renewals, extensions, amendments, refinancings and other modifications thereof and all costs, reasonable attorneys' fees and expenses incurred by the Agent in connection with the collection or enforcement thereof. The Agent's books and records showing the amount of the Obligations shall be admissible in evidence in any action or proceeding, and shall be binding absent manifest error upon each Guarantor, and conclusive for the purpose of establishing the amount of the Obligations. This Guaranty shall not be affected by the genuineness, validity, regularity or enforceability of the Obligations or any instrument or agreement evidencing any Obligations, or by the existence, validity, enforceability, perfection, non-perfection or extent of any collateral therefor, or by any fact or circumstance relating to the Obligations which might otherwise constitute a defense to the obligations of any Guarantor under this Guaranty, and each Guarantor hereby irrevocably waives any defenses it may now have or hereafter acquire in any way relating to any or all of the foregoing.

11.2 Rights of Lenders. Each Guarantor consents and agrees that Agent and Lenders may, at any time and from time to time, without notice or demand, and without affecting the enforceability or continuing effectiveness hereof: (a) amend, extend, renew, compromise, discharge, accelerate or otherwise change the time for payment or the terms of the Obligations or any part thereof; (b) take, hold, exchange, enforce, waive, release, fail to perfect, sell, or otherwise dispose of any security for the payment of such Guarantor's Obligations under this Article 11 or any other Obligations; (c) apply such security and direct the order or manner of sale thereof as Agent and Lenders in their sole discretion may determine; and (d) release or substitute one or more of any endorsers or other guarantors of any of the Obligations. Without limiting the generality of the foregoing, each Guarantor consents to the taking of, or failure to take, any action which might in any manner or to any extent vary the risks of such Guarantor under this the provisions of this Article 11 or which, but for this provision, might operate as a discharge of such Guarantor.

11.3 Certain Waivers. Each Guarantor waives (a) any defense arising by reason of any disability or other defense of the Borrower or any other guarantor, or the cessation from any cause whatsoever (including any act or omission of Agent or Lenders) of the liability of the Borrower or any other guarantor; (b) any defense based on any claim that such Guarantor's obligations exceed or are more burdensome than those of Borrower or any other guarantor; (c) the benefit of any statute of limitations affecting any Guarantor's liability hereunder; (d) any right to proceed against Borrower or any other guarantor, proceed against or exhaust any security for the Obligations, or pursue any other remedy in the power of Agent whatsoever; (e) any benefit of and any right to participate in any security now or hereafter held by any Agent; and (f) to the fullest extent permitted by law, any and all other defenses or benefits that may be derived from or afforded by applicable law limiting the liability of or exonerating guarantors or sureties, including without limitation by reason of Sections 2787 to 2855, inclusive, of the California Civil Code. Each Guarantor expressly waives all setoffs and counterclaims and all presentments, demands for payment or performance, notices of nonpayment or nonperformance, protests, notices of protest, notices of dishonor and all other notices or demands of any kind or nature whatsoever with respect to the Obligations, and all notices of acceptance of this Guaranty or of the existence, creation or incurrence of new or additional Obligations. Each Guarantor absolutely, unconditionally, knowingly, and expressly waives any right to revoke this Guaranty as to future Indebtedness and, in light thereof, all protection afforded such Guarantor under Section 2815 of the California Civil Code. Each Guarantor fully realizes and understands that, upon execution of this Agreement, such Guarantor will not have any right to revoke this Guaranty as to any future Indebtedness and, thus, may have no control over such Guarantor's ultimate responsibility for the Indebtedness. If, contrary to the express intent of this Agreement, any such revocation is effective notwithstanding the foregoing waiver, each Guarantor acknowledges and agrees that: (a) no such revocation shall be effective until written notice thereof has been received by Lenders; (b) no such revocation shall apply to any

Indebtedness in existence on such date (including any subsequent continuation, extension, or renewal thereof, or change in the interest rate, payment terms, or other terms and conditions thereof); (c) no such revocation shall apply to any Indebtedness made or created after such date to the extent made or created pursuant to a legally binding commitment of Lenders which is, or is believed in good faith by Lenders to be, in existence on the date of such revocation; (d) no payment by Borrower, or from any other source, prior to the date of such revocation shall reduce the obligations of such Guarantor hereunder; and (e) any payment by Borrower or from any source other than such Guarantor, subsequent to the date of such revocation, shall first be applied to that portion of the Obligations, if any, as to which the revocation by such Guarantor is effective (and which are not, therefore, guarantied by such Guarantor hereunder), and, to the extent so applied, shall not reduce the obligations of such Guarantor hereunder.

11.4 Obligations Independent. The obligations of each Guarantor hereunder are those of primary obligor, and not merely as surety, and are independent of the Obligations and the obligations of any other guarantor, and a separate action may be brought against such Guarantor to enforce this Guaranty whether or not the Borrower or any other person or entity is joined as a party.

11.5 Subrogation. No Guarantor shall exercise any right of subrogation, contribution, indemnity, reimbursement or similar rights with respect to any payments it makes under this Guaranty until all of the Obligations and any amounts payable under this Guaranty have been indefeasibly paid in cash and performed in full and the Commitments are terminated. If any amounts are paid to any Guarantor in violation of the foregoing limitation, then such amounts shall be held in trust for the benefit of Agent and Lenders and shall forthwith be paid to the Agent and Lenders to reduce the amount of the Obligations, whether matured or unmatured

11.6 Termination; Reinstatement. This Guaranty is a continuing and irrevocable guaranty of all Obligations now or hereafter existing and shall remain in full force and effect until all Obligations and any other amounts payable under this Guaranty are indefeasibly paid in full in cash and the Commitments are terminated. Notwithstanding the foregoing, this Guaranty shall continue in full force and effect or be revived, as the case may be, if any payment by or on behalf of the Borrower or any Guarantor is made, or any of Agent or Lenders exercises its right of setoff, in respect of the Obligations and such payment or the proceeds of such setoff or any part thereof is subsequently invalidated, declared to be fraudulent or preferential, set aside or required (including pursuant to any settlement entered into by any of Agent or Lenders in their discretion) to be repaid to a trustee, receiver or any other party, in connection with any proceeding under any bankruptcy or insolvency laws or otherwise, all as if such payment had not been made or such setoff had not occurred and whether or not the Agent or Lenders are in possession of or have released this Guaranty and regardless of any prior revocation, rescission, termination or reduction. The obligations of each Guarantor under this paragraph shall survive termination of this Guaranty.

11.7 Subordination. Except for payments permitted in connection with Indebtedness of the type permitted under Section 6.1 hereof, provided no Event of Default has occurred, is continuing, or would exist immediately after the payment is made, each Guarantor hereby subordinates the payment of all obligations and indebtedness of the Borrower or any Subsidiary owing to such Guarantor, whether now existing or hereafter arising, including but not limited to any obligation of the Borrower to such Guarantor as subrogee of Agent and Lenders or resulting from such Guarantor's performance under this Guaranty, to the indefeasible payment in full in cash of all Obligations. If Agent or Lenders so request, any such obligation or indebtedness of the Borrower to such Guarantor shall be enforced and performance received by such Guarantor as trustee for Agent and the proceeds thereof shall be paid over to Agent on account of the Obligations, but without reducing or affecting in any manner the liability of such Guarantor or any other guarantor under this Guaranty.

11.8 Stay of Acceleration. If acceleration of the time for payment of any of the Obligations is stayed, in connection with any case commenced by or against any Guarantor or the Borrower under any bankruptcy or insolvency laws or otherwise, or otherwise, all such amounts shall nonetheless be payable by such Guarantor immediately upon demand by Agent or Lenders.

11.9 Condition of Borrower. Each Guarantor acknowledges and agrees that it has the sole responsibility for, and has adequate means of, obtaining from the Borrower and any other guarantor such information concerning the financial condition, business and operations of the Borrower and any such other guarantor as such Guarantor requires, and that none of Agent or Lenders has any duty, and such Guarantor is not relying on any of Agent or Lenders at any time, to disclose to such Guarantor any information relating to the business, operations or financial condition of the

Borrower or any other guarantor (such Guarantor waiving any duty on the part of Agent and Lenders to disclose such information and any defense relating to the failure to provide the same).

ARTICLE 12 - DEFINITIONS

The definitions appearing in this Agreement or any Supplement shall be applicable to both the singular and plural forms of the defined terms:

"Account" means any "account," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest and, in any event, shall include, without limitation, all accounts receivable, book debts and other forms of obligations (other than forms of obligations evidenced by Chattel Paper, Documents or Instruments) now owned or hereafter received or acquired by or belonging or owing to such Loan Party (including, without limitation, under any trade name, style or division thereof) whether arising out of goods sold or services rendered by the Loan Party or from any other transaction, whether or not the same involves the sale of goods or services by the Loan Party (including, without limitation, any such obligation that may be characterized as an account or contract right under the UCC) and all of such Loan Party's rights in, to and under all purchase orders or receipts now owned or hereafter acquired by it for goods or services, and all of the Loan Party's rights to any goods represented by any of the foregoing (including, without limitation, unpaid seller's rights of rescission, replevin, reclamation and stoppage in transit and rights to returned, reclaimed or repossessed goods), and all monies due or to become due to the Loan Party under all purchase orders and contracts for the sale of goods or the performance of services or both by the Loan Party or in connection with any other transaction (whether or not yet earned by performance on the part of the Loan Party), now in existence or hereafter occurring, including, without limitation, the right to receive the proceeds of said purchase orders and contracts, and all collateral security and guarantees of any kind given by any Person with respect to any of the foregoing.

"Affiliate" means any Person which directly or indirectly controls, is controlled by, or is under common control with a Loan Party. "Control," "controlled by" and "under common control with" mean direct or indirect possession of the power to direct or cause the direction of management or policies (whether through ownership of voting securities, by contract or otherwise); provided, that control shall be conclusively presumed when any Person or affiliated group directly or indirectly owns ten percent (10%) or more of the securities having ordinary voting power for the election of directors of a corporation.

"Agreement" means this Loan and Security Agreement and each Supplement thereto, as each may be amended or supplemented from time to time.

"Bankruptcy Code" means the Federal Bankruptcy Reform Act of 1978 (11 U.S.C. §101, et seq.), as amended.

"Basic Interest" means the rate of interest payable on the outstanding balance of each Loan at the applicable Designated Rate.

"Borrowing Date" means the Business Day on which the proceeds of a Loan are disbursed by any Lender.

"Borrowing Request" means a written request from Borrower in substantially the form of Exhibit "B" to the Supplement, requesting the funding of one or more Loans on a particular Borrowing Date.

"Business Day" means any day other than a Saturday, Sunday or other day on which commercial banks in New York City or San Francisco are authorized or required by law to close.

"Change of Control" means: (a) any sale, license, or other disposition of all or substantially all of the assets of a Loan Party except as permitted by this Agreement; (b) any consolidation, merger or other combination involving a Loan Party except as permitted by this Agreement; or (c) any transaction or series of related transactions in which any Person or two or more Persons acting in concert (in each case, other than InCube Labs, LLC and its affiliates) shall have acquired by contract or otherwise, the power to control the management of Parent, or to control the equity interests of Parent entitled to vote for members of the Board of Directors or equivalent governing body of the Loan Party on a fully-diluted basis (and taking into account all such securities that such Person or Persons have the right to

acquire pursuant to any option right) representing 50% or more of the combined voting power of such securities (other than in connection with sale to recognized investors in a transaction or series of transactions effected by Parent for financing purposes, so long as the Parent identifies to Required Lenders the investors prior to the closing of the transaction and provides Required Lenders with a description of the material terms of such transaction).

"Chattel Paper" means any "chattel paper," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"Closing Date" means the date of this Agreement.

"Collateral" means the assets described on Annex I and Annex II attached hereto.

"Commitment" means the obligation of each Lender to make Loans to Borrower up to the aggregate principal amount set forth in the Supplement.

"Copyright License" means any written agreement granting any right to use any Copyright or Copyright registration now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest.

"Copyrights" means all of the following now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest: (i) all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof or of any other country; (ii) all registrations, applications and recordings in the United States Copyright Office or in any similar office or agency of the United States, any State thereof or any other country; (iii) all continuations, renewals or extensions thereof; and (iv) any registrations to be issued under any pending applications.

"Default" means an event which with the giving of notice, passage of time, or both would constitute an Event of Default.

"Default Rate" means the applicable Designated Rate plus five percent (5%) per annum.

"Deposit Accounts" means any "deposit accounts," as such term is defined in the UCC, now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest.

"Designated Rate" means the rate of interest per annum described in the Supplement as being applicable to an outstanding Loan from time to time.

"Documents" means any "documents," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"Dollars" or **"$"** means lawful currency of the United States.

"Environmental Laws" means all federal, state or local laws, statutes, common law duties, rules, regulations, ordinances and codes, together with all administrative orders, directed duties, requests, licenses, authorizations and permits of, and agreements with, any governmental authorities, in each case relating to environmental, health, or safety matters.

"Equipment" means any "equipment," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest and any and all additions, substitutions and replacements of any of the foregoing, wherever located, together with all attachments, components, parts, equipment and accessories installed thereon or affixed thereto.

"Event of Default" means any event described in Section 7.1.

"Fixtures" means any "fixtures," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"GAAP" means generally accepted accounting principles and practices consistent with those principles and practices promulgated or adopted by the Financial Accounting Standards Board and the Board of the American Institute of Certified Public Accountants, their respective predecessors and successors. Subject to Section 9.6, each accounting term used but not otherwise expressly defined herein shall have the meaning given it by GAAP.

"General Intangibles" means any "general intangibles," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest and, in any event, shall include, without limitation, all right, title and interest that Borrower may now or hereafter have in or under any contract, all customer lists, Copyrights, Trademarks, Patents, websites, domain names, and all applications therefor and reissues, extensions, or renewals thereof, other items of, and rights to, Intellectual Property, interests in partnerships, joint ventures and other business associations, Licenses, permits, trade secrets, proprietary or confidential information, inventions (whether or not patented or patentable), technical information, procedures, designs, knowledge, know-how, software, data bases, data, skill, expertise, recipes, experience, processes, models, drawings, materials and records, goodwill (including, without limitation, the goodwill associated with any Trademark, Trademark registration or Trademark licensed under any Trademark License), claims in or under insurance policies, including unearned premiums, uncertificated securities, money, cash or cash equivalents, deposit, checking and other bank accounts, rights to sue for past, present and future infringement of Copyrights, Trademarks and Patents, rights to receive tax refunds and other payments and rights of indemnification.

"Goods" means any "goods," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"Indebtedness" of any Person means at any date, without duplication and without regard to whether matured or unmatured, absolute or contingent: (i) all obligations of such Person for borrowed money; (ii) all obligations of such Person evidenced by bonds, debentures, notes, or other similar instruments; (iii) all obligations of such Person to pay the deferred purchase price of property or services, except trade accounts payable arising in the ordinary course of business; (iv) all obligations of such Person as lessee under capital leases (other than operating leases); (v) all obligations of such Person to reimburse or prepay any bank or other Person in respect of amounts paid under a letter of credit, banker's acceptance, or similar instrument, whether drawn or undrawn; (vi) all obligations of such Person to purchase securities which arise out of or in connection with the sale of the same or substantially similar securities; (vii) all obligations of such Person to purchase, redeem, exchange, convert or otherwise acquire for value any capital stock of such Person or any warrants, rights or options to acquire such capital stock, now or hereafter outstanding, except to the extent that such obligations remain performable solely at the option of such Person; (viii) all obligations to repurchase assets previously sold (including any obligation to repurchase any accounts or chattel paper under any factoring, receivables purchase, or similar arrangement); (ix) obligations of such Person under interest rate swap, cap, collar or similar hedging arrangements; and (x) all obligations of others of any type described in clause (i) through clause (ix) above guaranteed by such Person.

"Insolvency Proceeding" means with respect to a Person (a) any case, action or proceeding before any court or other governmental authority relating to bankruptcy, reorganization, insolvency, liquidation, receivership, dissolution, winding-up or relief of debtors with respect to such Person, or (b) any general assignment for the benefit of creditors, composition, marshalling of assets for creditors, or other, similar arrangement in respect of such Person's creditors generally or any substantial portion of its creditors, undertaken under U.S. Federal, state or foreign law, including the Bankruptcy Code, but in each case, excluding any avoidance or similar action against such Person commenced by an assignee for the benefit of creditors, bankruptcy trustee, debtor in possession, or other representative of another Person or such other Person's estate.

"Instruments" means any "instrument," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"Intellectual Property" means all of Borrower's Copyrights, Trademarks, Patents, Licenses, trade secrets, source codes, customer lists, proprietary or confidential information, inventions (whether or not patented or patentable), technical information, procedures, designs, knowledge, know-how, software, data bases, skill, expertise, experience, processes, models, drawings, materials, records and goodwill associated with the foregoing.

"Intellectual Property Security Agreement" means any Intellectual Property Security Agreement executed and delivered by Borrower in favor of Agent, as the same may be amended, supplemented, or restated from time to time.

"Inventory" means any "inventory," as such term is defined in the UCC, wherever located, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest, and, in any event, shall include, without limitation, all inventory, goods and other personal property that are held by or on behalf of a Loan Party for sale or lease or are furnished or are to be furnished under a contract of service or that constitute raw materials, work in process or materials used or consumed or to be used or consumed in the Loan Party's business, or the processing, packaging, promotion, delivery or shipping of the same, and all finished goods, whether or not the same is in transit or in the constructive, actual or exclusive possession of the Loan Party or is held by others for the Loan Party's account, including, without limitation, all goods covered by purchase orders and contracts with suppliers and all goods billed and held by suppliers and all such property that may be in the possession or custody of any carriers, forwarding agents, truckers, warehousemen, vendors, selling agents or other Persons.

"Investment Property" means any "investment property," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"Letter-of-Credit Rights" means any "letter-of-credit rights," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest, including any right to payment under any letter of credit.

"License" means any Copyright License, Patent License, Trademark License or other license of rights or interests now held or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest and any renewals or extensions thereof.

"Lien" means any mortgage, deed of trust, pledge, hypothecation, assignment for security, security interest, encumbrance, levy, lien or charge of any kind, whether voluntarily incurred or arising by operation of law or otherwise, against any property, any conditional sale or other title retention agreement, any lease in the nature of a security interest, and the filing of any financing statement (other than a precautionary financing statement with respect to a lease that is not in the nature of a security interest) under the UCC or comparable law of any jurisdiction.

"Loan" has the meaning specified in the Supplement.

"Loan Documents" means, individually and collectively, this Agreement, each Supplement, each Note, the Intellectual Property Security Agreement, and any other security or pledge agreement(s), any Warrant issued by Parent in connection with this Agreement, and all other contracts, instruments, addenda and documents executed in connection with this Agreement or the extensions of credit which are the subject of this Agreement.

"Loan Party" means, individually and collectively, each Borrower and each Guarantor.

"Material Adverse Effect" or "**Material Adverse Change**" means (a) a material adverse change in, or a material adverse effect upon, the operations, business, properties, or financial condition of a Loan Party; (b) a material impairment of the ability of the applicable Loan Party to perform under any Loan Document; or (c) a material adverse effect upon the legality, validity, binding effect or enforceability against any Loan Party of any Loan Document.

"Maturity Date" has the meaning specified in the Supplement.

"Note" means a promissory note substantially in the form attached to the Supplement as Exhibit "A", executed by Borrower evidencing each Loan.

"Obligations" means all debts, obligations and liabilities of Borrower and each Guarantor to each Lender or Agent now or hereafter made, incurred or created under, pursuant to or in connection with this Agreement or any other Loan Document (other than the Warrant), whether voluntary or involuntary and however arising or evidenced, whether direct or acquired by such Lender or Agent by assignment or succession, whether due or not due, absolute or contingent, liquidated or unliquidated, determined or undetermined, and whether Borrower or any such Guarantor

may be liable individually or jointly, or whether recovery upon such debt may be or become barred by any statute of limitations or otherwise unenforceable; and all renewals, extensions and modifications thereof; and all attorneys' fees and costs incurred by each Lender and Agent in connection with the collection and enforcement thereof as provided for in any such Loan Document. Notwithstanding the foregoing, the Loan Parties' obligations under any warrants (including the Warrants) issued to Lender or its designated affiliate shall not be "Obligations" hereunder.

"Operating Agreement" means Fifth Amended and Restated Limited Liability Company Agreement adopted by all the members of Borrower, dated as of August 3, 2021.

"Parent" means RANI THERAPEUTICS HOLDINGS, INC., a Delaware corporation.

"Patent License" means any written agreement granting any right with respect to any invention on which a Patent is in existence now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest.

"Patents" means all of the following property now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest: (a) all letters patent of, or rights corresponding thereto in, the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto in, the United States or any other country, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country; (b) all reissues, continuations, continuations-in-part or extensions thereof; (c) all petty patents, divisionals, and patents of addition; and (d) all patents to be issued under any such applications.

"Permitted Acquisitions" means the acquisition by a Loan Party or any of its Subsidiaries of all or substantially all of the assets of another Person or a division or line of business of another Person, all or substantially all of the capital stock of another Person or a merger, consolidation or other combination with another Person, provided that each of the following shall be applicable to any such acquisition: (a) no Event of Default shall have occurred and be continuing or would result from the consummation of such acquisition; (b) the assets acquired in such acquisition are used or useful in the same or similar line of business as the Loan Parties and their Subsidiaries is in as of the Effective Date or reasonably related thereto and are free and clear of Liens other than Permitted Liens; (c) if such acquisition is structured as a stock acquisition, then the Person so acquired shall either (i) become a wholly-owned Subsidiary of a Loan Party and the Loan Party shall comply, or cause such Subsidiary to be joined as a Loan Party to this Agreement or (ii) such Person shall be merged with and into a Loan Party (with the Loan Party being the surviving entity); (d) Borrower shall provide Bank with written notice of the proposed acquisition at least five (5) Business Days prior to the anticipated closing date of the proposed acquisition; (e) after giving effect to the consummation of such acquisition on a pro forma basis, the Loan Parties shall have a consolidated cash and cash equivalent balance of at least two times the aggregate outstanding principal amount of the Loans at the time such acquisition is consummated; (f) such acquisition shall have been approved by the board of directors or other legally governing body of the Person selling such assets; and (g) the cash consideration for all such acquisitions shall not exceed $2,500,000 per year.

"Permitted Lien" means:

(a) involuntary Liens which, in the aggregate, would not have a Material Adverse Effect and which in any event would not exceed, in the aggregate, the Threshold Amount;

(b) Liens for current taxes or other governmental or regulatory assessments which are not delinquent, or which are contested in good faith by the appropriate procedures and for which appropriate reserves are maintained;

(c) security interests on any property held or acquired by a Loan Party in the ordinary course of business securing Indebtedness incurred or assumed for the purpose of financing all or any part of the cost of acquiring such property; provided, that such Lien attaches solely to the property acquired with such Indebtedness and that the principal amount of such Indebtedness does not exceed one hundred percent (100%) of the cost of such property;

(d) Liens in favor of Agent;

(e) bankers' liens, rights of setoff and similar Liens incurred on deposits made in the ordinary course of business as long as an account control agreement (or equivalent) for each account in which such deposits are held in a form reasonably acceptable to Agent has been executed and delivered to Agent to the extent required under Section 6.11;

(f) materialmen's, mechanics', repairmen's, warehousemen's, carriers', landlord's (subject to Section 5.9(e) hereof), employees' or other like Liens arising in the ordinary course of business and which are not delinquent for more than 45 days or are being contested in good faith by appropriate proceedings;

(g) Liens arising from any judgment, attachment or similar order that does not constitute an Event of Default under Section 7.1(h);

(h) licenses or sublicenses of Intellectual Property in accordance with the terms of Section 6.5 hereof;

(i) Liens securing Subordinated Debt;

(j) Liens which have been approved by Lender in writing prior to the Closing Date, as shown on Schedule 6.2 hereto, including any liens incurred in connection with the extension, renewal, or refinancing of any Indebtedness secured by Liens referenced on Schedule 6.2 hereto;

(k) the interests of licensors under inbound licenses to Borrower;

(l) the interests of sub-lessees under subleases of real property;

(m) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(n) deposits to secure the performance of bids, trade contracts (other than for Indebtedness), leases (other than capital lease obligations), statutory obligations, surety and appeal bonds, performance bonds and other obligations of a like nature arising as a matter of law and incurred in the ordinary course of business;

(o) zoning restrictions, easements, rights of way, restrictions on use of real property and other similar encumbrances incurred in the ordinary course of business which, in the aggregate, are not substantial in amount and do not materially detract from the value of the property subject thereto or interfere with the ordinary conduct of the business of a Loan Party or any of its Subsidiaries; and

(p) Liens on cash and cash equivalents securing reimbursement obligations for letters of credit not exceeding $250,000 at any time.

"Person" means any individual, sole proprietorship, partnership, joint venture, trust, unincorporated organization, association, corporation, limited liability company, institution, public benefit corporation, other entity or government (whether federal, state, county, city, municipal, local, foreign, or otherwise, including any instrumentality, division, agency, body or department thereof).

"Proceeds" means "proceeds," as such term is defined in the UCC and, in any event, shall include, without limitation, (a) any and all Accounts, Chattel Paper, Instruments, cash or other forms of money or currency or other proceeds payable to a Loan Party from time to time in respect of the Collateral, (b) any and all proceeds of any insurance, indemnity, warranty or guaranty payable to a Loan Party from time to time with respect to any of the Collateral, (c) any and all payments (in any form whatsoever) made or due and payable to a Loan Party from time to time in connection with any requisition, confiscation, condemnation, seizure or forfeiture of all or any part of the Collateral by any governmental authority (or any Person acting under color of governmental authority), (d) any claim of a Loan Party against third parties (i) for past, present or future infringement of any Copyright, Patent or Patent License or (ii) for past, present or future infringement or dilution of any Trademark or Trademark License or for injury to the goodwill associated with any Trademark, Trademark registration or Trademark licensed under any Trademark License and (e) any and all other amounts from time to time paid or payable under or in connection with any of the Collateral.

"Receivables" means all of a Loan Party's Accounts, Instruments, Documents, Chattel Paper, Supporting Obligations, and letters of credit and Letter-of-Credit Rights.

"Records" means all a Loan Party's computer programs, software, hardware, source codes and data processing information, all written documents, books, invoices, ledger sheets, financial information and statements, and all other writings concerning the Loan Party's business.

"Related Person" means any Affiliate of a Loan Party, or any officer, employee, manager, or director of Borrower or any Affiliate.

"Required Lenders" (and each a **"Required Lender"**) means, as of any date of determination, Lenders holding at least 51% of the outstanding principal balance of the total principal amount of Loans then outstanding.

"Rights to Payment" means all of a Loan Party's accounts, instruments, contract rights, documents, chattel paper and all other rights to payment, including, without limitation, the Accounts, all negotiable certificates of deposit and all rights to payment under any Patent License, any Trademark License, or any commercial or standby letter of credit.

"Security Documents" means this Agreement, the Supplement hereto, the Intellectual Property Security Agreement, and any and all account control agreements, collateral assignments, chattel mortgages, financing statements, amendments to any of the foregoing and other documents from time to time executed or filed to create, perfect or maintain the perfection of Agent's Liens on the Collateral.

"Shares" means: (a) one hundred percent (100%) of the issued and outstanding capital stock, membership units or other securities owned or held of record by a Loan Party in any Subsidiary that is not a controlled foreign corporation (as defined in the Internal Revenue Code), and (b) 65% of the issued and outstanding capital stock, membership units or other securities entitled to vote owned or held of record by a Loan Party in any Subsidiary that is a controlled foreign corporation (as defined in the Internal Revenue Code).

"Subordinated Debt" means Indebtedness (i) approved by Required Lenders; and (ii) where the holder's right to payment of such Indebtedness, the priority of any Lien securing the same, and the rights of the holder thereof to enforce remedies against a Loan Party following default have been made subordinate to the Liens of Agent and to the prior payment to each Lender of the Obligations, either (A) pursuant to a written subordination agreement approved by Required Lenders in their sole but reasonable discretion or (B) on terms otherwise approved by Required Lenders in their sole but reasonable discretion.

"Subsidiary" means any Person a majority of the equity ownership or voting stock of which is directly or indirectly now owned or hereafter acquired by a Guarantor, Borrower or by one or more other Subsidiaries.

"Supplement" means that certain supplement to the Loan and Security Agreement, dated as of August 8, 2022, as the same may be amended or restated from time to time, and any other supplements entered into among Borrower, Guarantors and each Lender, as the same may be amended or restated from time to time.

"Supporting Obligations" means any "supporting obligations," as such term is defined in the UCC, now owned or hereafter acquired by a Loan Party or in which a Loan Party now holds or hereafter acquires any interest.

"**Tax Receivable Agreement**" means the Tax Receivable Agreement, dated August 3, 2021, by and among Rani Therapeutics Holdings, Inc., Borrower and the persons named therein.

"Termination Date" has the meaning specified in the Supplement.

"Threshold Amount" has the meaning specified in the Supplement.

"Trademark License" means any written agreement granting any right to use any Trademark or Trademark registration now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest.

"Trademarks" means all of the following property now owned or hereafter acquired by Borrower or in which Borrower now holds or hereafter acquires any interest: (a) all trademarks, tradenames, corporate names, business names, trade styles, service marks, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and any applications in connection therewith, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof and (b) reissues, extensions or renewals thereof.

"UCC" means the Uniform Commercial Code as the same may, from time to time, be in effect in the State of California; provided, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection or priority of, or remedies with respect to, Agent's Lien on any Collateral is governed by the Uniform Commercial Code as enacted and in effect in a jurisdiction other than the State of California, the term "UCC" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority or remedies and for purposes of definitions related to such provisions. Unless otherwise defined herein, terms that are defined in the UCC and used herein shall have the meanings given to them in the UCC.

"Warrant" has the meaning specified in the Supplement.

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

BORROWER:

RANI THERAPEUTICS, LLC

By: /s/ Svai Sanford
Name: Svai Sanford
Title: Chief Financial Officer

GUARANTORS:

RANI THERAPEUTICS HOLDINGS, INC.

By: /s/ Svai Sanford
Name: Svai Sanford
Title: Chief Financial Officer

RANI MANAGEMENT SERVICES, INC.

By: /s/ Svai Sanford
Name: Svai Sanford
Title: Chief Financial Officer

LENDER:

AVENUE VENTURE OPPORTUNITIES FUND, L.P.

By: Avenue Venture Opportunities Partners, LLC
Its: General Partner

By: /s/ Sonia Gardner
Name: Sonia Gardner
Title: Member

AGENT:

AVENUE VENTURE OPPORTUNITIES FUND, L.P.

By: Avenue Venture Opportunities Partners, LLC
Its: General Partner

By: /s/ Sonia Gardner
Name: Sonia Gardner
Title: Member

[Schedules to Loan and Security Agreement follow]

Annex I to
Loan and Security Agreement
dated as of August 8, 2022
among
Rani Therapeutics, LLC, as Borrower
Rani Therapeutics Holdings, Inc., as a Guarantor
Rani Management Services, Inc., as a Guarantor
and
Avenue Venture Opportunities Fund, L.P., as a Lender, and as Agent

Description of Collateral

The Collateral consists of all of Borrower's right, title and interest in and to the following property, whether now owned or hereafter acquired and wherever located: (a) all Receivables; (b) all Equipment; (c) all Fixtures; (d) all General Intangibles (including all Intellectual Property); (e) all Inventory; (f) all Investment Property; (g) all Deposit Accounts; (h) all Shares; (i) all other Goods and personal property of Borrower, whether tangible or intangible and whether now or hereafter owned or existing, leased, consigned by or to, or acquired by, Borrower and wherever located; (j) all Records; and (k) all Proceeds of each of the foregoing and all accessions to, substitutions and replacements for, and rents, profits and products of each of the foregoing.

Notwithstanding the foregoing the term "Collateral" shall not include: (i) more than sixty-five percent (65%) of the issued and outstanding capital stock, membership units or other securities entitled to vote owned or held of record by Borrower in any Subsidiary that is a controlled foreign corporation (as defined in the Internal Revenue Code), provided that the Collateral shall include one hundred percent (100%) of the issued and outstanding non-voting capital stock of such Subsidiary; (ii) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, but only to the extent the granting of a security interest in such "intent to use" trademarks would be contrary to applicable law; (iii) any property (including any accessions, additions, replacements or substitutions)subject to a Lien that constitutes a Permitted Lien under clause (c) of the definition of Permitted Liens if Borrower is prohibited from granting a security interest in such property provided, that immediately upon the lapse or termination of any such provision, the term "Collateral" shall include, and Borrower shall be deemed to have granted a security interest in, all its rights, title and interests in and to such property; (iv) any contract, Instrument or Chattel Paper in which Borrower has any right, title or interest if and to the extent such contract, Instrument or Chattel Paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Borrower therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, Instrument or Chattel Paper to enforce any remedy with respect thereto; or (v) the Excluded Accounts; provided, however, that the foregoing exclusions in clauses (iii) and (iv) shall not apply if (A) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, Instrument or Chattel Paper, or (B) such prohibition would be rendered ineffective pursuant to Sections 9-407(a) or 9-408(a) of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code or principles of equity); provided, further, that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "Collateral" shall include, and Borrower shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, Instrument or Chattel Paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Lender's unconditional continuing security interest in and to all rights, title and interests of Borrower in or to any payment obligations or other rights to receive monies due or to become due under any such contract, Instrument or Chattel Paper and in any such monies and other proceeds of such contract, Instrument or Chattel Paper.

Annex II to
Loan and Security Agreement
dated as of August 8, 2022
among
Rani Therapeutics, LLC, as Borrower
Rani Therapeutics Holdings, Inc., as a Guarantor
Rani Management Services, Inc., as a Guarantor
and
Avenue Venture Opportunities Fund, L.P., as a Lender, and as Agent

Description of Collateral

The Collateral consists of all of Guarantor's right, title and interest in and to the following property, whether now owned or hereafter acquired and wherever located: (a) all Receivables; (b) all Equipment; (c) all Fixtures; (d) all General Intangibles (including all Intellectual Property); (e) all Inventory; (f) all Investment Property; (g) all Deposit Accounts; (h) all Shares; (i) all other Goods and personal property of Guarantor, whether tangible or intangible and whether now or hereafter owned or existing, leased, consigned by or to, or acquired by, Guarantor and wherever located; (j) all Records; and (k) all Proceeds of each of the foregoing and all accessions to, substitutions and replacements for, and rents, profits and products of each of the foregoing.

Notwithstanding the foregoing the term "Collateral" shall not include: (i) more than sixty-five percent (65%) of the issued and outstanding capital stock, membership units or other securities entitled to vote owned or held of record by Guarantor in any Subsidiary that is a controlled foreign corporation (as defined in the Internal Revenue Code), provided that the Collateral shall include one hundred percent (100%) of the issued and outstanding non-voting capital stock of such Subsidiary; (ii) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, but only to the extent the granting of a security interest in such "intent to use" trademarks would be contrary to applicable law; (iii) any property (including any accessions, additions, replacements or substitutions)subject to a Lien that constitutes a Permitted Lien under clause (c) of the definition of Permitted Liens if Guarantor is prohibited from granting a security interest in such property provided, that immediately upon the lapse or termination of any such provision, the term "Collateral" shall include, and Guarantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such property; (iv) any contract, Instrument or Chattel Paper in which Guarantor has any right, title or interest if and to the extent such contract, Instrument or Chattel Paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Guarantor therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, Instrument or Chattel Paper to enforce any remedy with respect thereto; or (v) the Excluded Accounts; provided, however, that the foregoing exclusions in clauses (iii) and (iv) shall not apply if (A) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, Instrument or Chattel Paper, or (B) such prohibition would be rendered ineffective pursuant to Sections 9-407(a) or 9-408(a) of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code or principles of equity); provided, further, that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "Collateral" shall include, and Guarantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, Instrument or Chattel Paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Lender's unconditional continuing security interest in and to all rights, title and interests of Guarantor in or to any payment obligations or other rights to receive monies due or to become due under any such contract, Instrument or Chattel Paper and in any such monies and other proceeds of such contract, Instrument or Chattel Paper.

Exhibit 10.2

SUPPLEMENT
to the
Loan and Security Agreement
dated as of August 8, 2022
between
Rani Therapeutics, LLC ("Borrower")
and
Rani Management Services, Inc. , as a guarantor
and
Rani Therapeutics Holdings, Inc., as a guarantor (together with Rani Management Services, Inc., each, individually, a "Guarantor," and collectively, "Guarantors"))
and
Avenue Venture Opportunities Fund, L.P., a Delaware limited partnership,
as a lender (together with other lenders from time to time party hereto, each, individually, a "Lender" and collectively, the "Lenders"), and as administrative agent and collateral agent ("in such capacity, "Agent")

This is a Supplement identified in the document entitled Loan and Security Agreement, dated as of August 8, 2022 (as amended, restated, supplemented and modified from time to time, the **"Loan and Security Agreement"**), by and among Borrower, Guarantor, Lenders and Agent. All capitalized terms used in this Supplement and not otherwise defined in this Supplement have the meanings ascribed to them in Article 12 of the Loan and Security Agreement, which is incorporated in its entirety into this Supplement. In the event of any inconsistency between the provisions of the Loan and Security Agreement and this Supplement, this Supplement is controlling.

In addition to the provisions of the Loan and Security Agreement, the parties agree as follows:

Part 1 - Additional Definitions:

"Amortization Period" means the period commencing on the first day of the first full calendar month following the end of the Interest-only Period and continuing until the Maturity Date.

"Commitment" means, subject to the terms and conditions set forth in the Loan and Security Agreement and this Supplement, Lenders' commitment to make Growth Capital Loans to Borrower in the aggregate original principal amount of Thirty Million Dollars ($30,000,000), of which Fifteen Million Dollars ($15,000,000) shall be funded on the Closing Date ("**Tranche 1A**") and, subject to the conditions in Sections 1(b) and 1(c) of Part 2, up to Fifteen Million Dollars ($15,000,000) to be funded between the Tranche 1B Start Date and on or before the Tranche 1B End Date ("**Tranche 1B**"). At the request of the Borrower, Lenders may make additional Growth Capital Loans to Borrower of up to an additional ($15,000,000) (the "**Discretionary Tranche 2 Additional Availability Amount**"), to be funded between the Discretionary Tranche 2 Start Date and on or before the Discretionary Tranche 2 End Date as Borrower and Lenders may mutually agree, subject to Borrower's full draw-down of Tranche 1B, achievement of the Milestone Study and the Discretionary Tranche 2 Milestone and approval of Lenders' Investment Committees, in their sole discretion, provided that, as of the Closing Date, the Discretionary Tranche 2 Additional Availability Amount shall not be considered, and is not, committed hereunder by any Lender. Notwithstanding the above, as to any Lender, the obligation of such Lender to make Growth Capital Loans subject to the terms and conditions set forth in the Loan and Security Agreement and this Supplement shall not exceed the amount set forth under the heading Tranche 1A Commitment or Tranche 1B Commitment, as applicable, opposite such Lender's name on Schedule 1 to this Supplement.

"Designated Rate" means, for each Growth Capital Loan, a variable rate of interest per annum equal to the greater of (i) ten and thirty-five one hundredths percent (10.35%) and (ii) the Prime Rate plus the sum of five and

six-tenths percent (5.60%). Changes to the Designated Rate based on changes to the Prime Rate shall be effective as of the next scheduled interest payment date immediately following such change.

"Discretionary Tranche 2 End Date" means the last day of the Interest-only Period.

"Discretionary Tranche 2 Milestone" means Borrower's receipt after the Closing Date of at least Fifty Million Dollars ($50,000,000.00) in net cash proceeds from the sale and issuance of Borrower's equity securities and/or upfront licensing proceeds; in each case, subject to written evidence of the same, in form and content reasonably acceptable to Lenders.

"**Discretionary Tranche 2 Start Date**" means the (a) the date of Borrower's completion of the Milestone Study, (b) the date of Borrower's achievement of the Discretionary Tranche 2 Milestone, or (c) the date Lenders' Investment Committees, in their sole discretion, approve the issuance of Discretionary Tranche 2, whichever occurs last.

"FDA" means the U.S. Food and Drug Administration or any successor thereto.

"Final Payment" means a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) equal to five and one-half percent (5.50 %) of the aggregate amount of funded Loans.

"Growth Capital Loan" means any Loan requested by Borrower and funded by a Lender under its Commitment for general corporate purposes of Borrower.

"IDE" means an investigational device exemption issued by the FDA.

"Interest-only Milestone" means Borrower has achieved successful completion of the Milestone Study, as determined by Borrower in good faith.

"Interest-only Period" means the period commencing on the Closing Date and continuing until the twenty-four (24) month anniversary of the Closing Date; provided, however, that such period shall be extended for six (6) months if as of the last day of the Interest-only Period then in effect, Borrower has achieved Borrower has achieved the Interest-only Milestone; *provided, further*, however, that the Interest-only Period shall not exceed thirty (30) months.

"Loan" or **"Loans"** mean, as the context may require, individually a Growth Capital Loan, and collectively, the Growth Capital Loans.

"Loan Commencement Date" means, with respect to each Growth Capital Loan: (a) the first day of the first full calendar month following the Borrowing Date of such Loan if such Borrowing Date is not the first day of a month; or (b) the same day as the Borrowing Date if the Borrowing Date is the first day of a month.

"Maturity Date" means August 1, 2026.

"Milestone Study" means the IDE study or similar repeat dose study or phase 2 clinical study with Borrower's oral delivery technology, whether conducted by or on behalf of Borrower, an Affiliate, a third-party license or development collaborator or otherwise.

"Prepayment Fee" means, with respect to any prepayment of the Loans:

(i) if the prepayment occurs during the period commencing on the Closing Date and ending on (but including) the first anniversary of the Closing Date, an amount equal to the principal amount of such Loans prepaid multiplied by three percent (3.00%); and

(ii) if the prepayment occurs during the period commencing on the day after the first anniversary of Closing Date and ending on (but including) the second anniversary of the Closing Date, an amount equal to the principal amount of such Loans prepaid multiplied by two percent (2.00%); and

(iii) if the prepayment occurs during the period commencing on the day after the second anniversary of the Closing date and ending on (but excluding) the Maturity Date, an amount equal to the principal amount of the Loans prepaid multiplied by one percent (1.00%).

"**Primary Operating Account**" shall be the bank account set forth in Section 6 below, unless and until such account is changed in accordance with Section 5.10 of the Loan and Security Agreement.

"Prime Rate" is the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication thereto as the "prime rate" then in effect; provided that, in the event such rate of interest is less than zero, such rate shall be deemed to be zero for purposes of this Supplement; and provided further that if such rate of interest, as set forth from time to time in the money rates section of The Wall Street Journal, becomes unavailable for any reason as determined by Agent, the "Prime Rate" shall mean the rate of interest per annum announced by Silicon Valley Bank as its prime rate in effect at its principal office in the State of California (such announced Prime Rate not being intended to be the lowest rate of interest charged by such institution in connection with extensions of credit to debtors); provided that, in the event such rate of interest is less than zero, such rate shall be deemed to be zero for purposes of this Supplement.

"Termination Date" means the earlier of: (i) the date Lenders may terminate making Growth Capital Loans or extending other credit pursuant to the rights of Lenders under Article 7 of the Loan and Security Agreement; and (ii) the last day of the Interest-only Period.

"Threshold Amount" means Five Hundred Thousand Dollars ($500,000.00).

"Tranche 1A" means the initial Growth Capital Loan funded on the Closing Date in the amount of Fifteen Million Dollars ($15,000,000)

"Tranche 1A Commitment" means, as to any Lender, subject to the terms and conditions set forth in the Loan and Security Agreement and this Supplement, the obligation of such Lender, if any, to make Growth Capital Loans to the Borrower on the Closing Date in a principal amount not to exceed the amount set forth under the heading Tranche 1A Commitment opposite such Lender's name on Schedule 1 hereto.

"Tranche 1B" means the Growth Capital Loans funded beginning on the Tranche 1B Start Date and ending on the Tranche 1B End Date in the aggregate amount of up to Fifteen Million Dollars ($15,000,000).

"Tranche 1B Commitment" means, as to any Lender, subject to the terms and conditions set forth in the Loan and Security Agreement and this Supplement, the obligation of such Lender, if any, to make Growth Capital Loans to the Borrower beginning on the Tranche 1B Start Date to be funded on or before the Tranche 1B End Date, subject to the conditions in Section 1(b) of Part 2 in a principal amount not to exceed the amount set forth under the heading Tranche 1B opposite such Lender's name on Schedule 1 hereto.

"Tranche 1B End Date" means December 31, 2022.

"**Tranche 1B Start Date**" means October 1, 2022.

"Warrant" is defined in Part 2, Section 3 hereof.

Part 2 - Additional Covenants and Conditions:

1. Growth Capital Loan Facility. Subject to satisfaction of the conditions precedent specified in Sections 4.1 and Section 4.2 of the Loan and Security Agreement and this Supplement, each Lender agrees to make Growth Capital Loans to Borrower under such Lender's Commitment from time to time from and after the Closing Date up to

and including the Termination Date in an aggregate, original principal amount up to, but not exceeding, then then-unfunded portion of Lender's Commitment, as follows:

(a) Tranche 1A. Each Lender shall fund its pro rata share of the Tranche 1A Commitment in the amount of Fifteen Million Dollars ($15,000,000) on the Closing Date**.**

(b) Tranche 1B. Each Lender shall fund its pro rata share of the Tranche 1B Commitment in the amount of Fifteen Million Dollars ($15,000,000) upon Borrower's request for a Tranche 1B Loan during the period commencing on the Tranche 1B Start Date and ending on the Tranche 1B End Date in an aggregate, original principal amount up to, but not exceeding, the then-unfunded portion of Lender's Tranche 1B Commitment.

(c) Minimum Funding Amount; Maximum Number of Borrowing Requests. Growth Capital Loans requested by Borrower to be made on a single Business Day shall be for a minimum aggregate, original principal amount of Five Million Dollars ($5,000,000); provided, however, that the initial Growth Capital Loan shall be funded on the Closing Date in a minimum original principal amount of Fifteen Million Dollars ($15,000,000). Borrower shall not submit a Borrowing Request more frequently than once per calendar month;

(d) Repayment of Growth Capital Loans. Principal of, and interest on, each Growth Capital Loan shall be payable as set forth in a Note evidencing such Growth Capital Loan (substantially in the form attached hereto as Exhibit "A"), which Note shall provide substantially as follows: principal shall be fully amortized over the Amortization Period in equal, monthly principal installments plus, in each case, unpaid interest thereon at the Designated Rate, commencing after the Interest-only Period of interest-only installments at the Designated Rate. In particular, on the Borrowing Date applicable to such Growth Capital Loan, Borrower shall pay to Agent (i) if the Borrowing Date is earlier than the Loan Commencement Date, interest only at the Designated Rate, in advance, on the outstanding principal balance of the Growth Capital Loan for the period from the Borrowing Date through the last day of the calendar month in which such Borrowing Date occurs (it being understood that this clause (i) shall not apply in the case the Borrowing Date is on the same date as the Loan Commencement Date), and (ii) the first (1st) interest-only installment at the Designated Rate, in advance, on the outstanding principal balance of the Note evidencing such Loan for the ensuing month. Commencing on the first day of the second full month after the Borrowing Date and continuing on the first day of each month during the Interest-only Period thereafter, Borrower shall pay to Agent interest only at the Designated Rate, in advance, on the outstanding principal balance of the Loan evidenced by such Note for the ensuing month. Commencing on the first day of the first full month after the end of the Interest-only Period, and continuing on the first day of each consecutive calendar month thereafter, Borrower shall pay to Agent equal consecutive monthly principal installments in advance in an amount sufficient to fully amortize the Loan evidenced by such Note over the Amortization Period, plus interest at the Designated Rate for such month. On the Maturity Date, all principal and accrued interest then remaining unpaid and the Final Payment shall be due and payable.

2. Prepayment. Borrower may prepay all, but not less than all, outstanding Growth Capital Loans in whole, but not in part, at any time upon no less than five (5) Business Days' prior written notice to Lenders, by tendering to each Lender a cash payment in respect of such Loans in an amount determined by such Lender equal to the sum of: (i) the aggregate outstanding principal amount of such Loans; (ii) the accrued and unpaid interest on such Loans as of the date of prepayment; (iii) the Prepayment Fee; and (iv) the Final Payment.

3. Issuance of Warrant. As additional consideration for the making of the Commitment, each Lender has earned and is entitled to receive immediately upon the execution of the Loan and Security Agreement and this Supplement, a warrant instrument issued by Guarantor (the **"Warrant"**). The Warrant shall be in form and substance reasonably satisfactory to the applicable Lender.

4. Commitment Fee. Borrower shall pay to each Lender, pro-rata in accordance with each Lender's respective Commitment, a commitment fee in the amount of one percent (1.00%) of the Thirty Million Dollars ($30,000,000.00) in total Commitment due and payable on the Closing Date, of which One Hundred Fifty Thousand Dollars ($150,000.00) has been paid by Borrower to Agent as an advance deposit prior to the date hereof. As an additional condition precedent under Section 4.1 of the Loan and Security Agreement, each Lender shall have completed to its satisfaction its due diligence review of Borrower's business and financial condition and prospects, and such Lender's pro rata share of the Commitment shall have been approved by its investment committee and each

Lender shall have elected to fund its pro rata share of the Commitment under the Loan and Security Agreement. If this condition is not satisfied, the One Fifty Hundred Thousand Dollars ($150,000.00) advance deposit previously paid by Borrower shall be refunded. Except as set forth in this Section 4, the Commitment Fee is not refundable.

5. Documentation Fee Payment. On the Closing Date, Borrower shall reimburse each Lender and Agent pursuant to Section 9.8(a) of the Loan and Security Agreement for (i) its reasonable out-of-pocket attorneys' fees, costs and expenses incurred in connection with the preparation and negotiation of the Loan Documents and (ii) such Lender's and Agent's out-of-pocket costs and filing fees related to perfection of its Liens in the Collateral in any jurisdiction in which the same is located, recording a copy of the Intellectual Property Security Agreement with the United States Patent and Trademark Office or the United States Copyright Office, as applicable, and confirming the priority of such Liens.

6. Borrower's Primary Operating Account and Wire Transfer Instructions:

Institution Name:	
Address:	
ABA No.:	
Contact Name:	
Phone No.:	
E-mail:	
Account Title:	
Account No.:	

7. Debits to Account for ACH Transfers. For purposes of Sections 2.2 and 5.10 of the Loan and Security Agreement, the Primary Operating Account shall be the bank account set forth in Section 6 above, unless and until such account is changed in accordance with Section 5.10 of the Loan and Security Agreement. Borrower hereby agrees that the Growth Capital Loans will be advanced to the account specified above and regularly scheduled payments of principal, interest and fees due to each Lender will be automatically debited by each Lender from the same account. Borrower hereby confirms that the bank at which the Primary Operating Account is maintained uses that same ABA Number for incoming wires transfers to the Primary Operating Account and outgoing ACH transfers from the Primary Operating Account.

8. Financial Covenant. Commencing on the first anniversary of the Closing Date and at all times thereafter when Borrower's market capitalization is $650,000,000 or less, Borrower shall have at least two (2) drug products utilizing Borrower's oral delivery technology in clinical development (i.e., has initiated clinical development and remains at a clinical stage of development, regardless of whether a clinical trial is then ongoing), it being understood that RT-102 and RT-109 shall be deemed different drug products.

9. Tax Matters.

(a) The parties to this Agreement intend that the Loans shall be treated as indebtedness for U.S. federal income tax purposes. The "issue price" for each Loan held by each Lender shall be reduced by the fair market value of the associated Warrant acquired by such Lender pursuant to the Loan and Security Agreement in accordance with .Section 1273(c)(2) of the Internal Revenue Code of 1986, as amended (the "**Code**"), and Treasury Regulations Section 1.1273-2(h). Each party hereto agrees to file all required Tax Returns consistently with the foregoing.

(b) Any Lender (including for proposes of this Section 9(b) any successor, assign, or participant) that is entitled to an exemption from or reduction of withholding tax (including, without limitation, any withholding tax imposed under any of Sections 1441 – 1446 of the Code, Sections 1471 – 1474 of the Code, and/or Sections 3401 – 3406 of the Code) under the law of the United States, or an applicable treaty to which such jurisdiction is a party, with respect to payments under the Loans or any other Loan Document shall deliver to the Borrower and the Agent (or, in the case of a participation, to the participating Lender), at the time or times prescribed by applicable law and at

any times reasonably requested by the Borrower or the Agent, such properly completed and executed documentation prescribed by applicable law or reasonably requested by the Borrower or the Agent as will permit such payments to be made without withholding or at a reduced rate. In addition, any Lender, if reasonably requested by the Borrower or the Agent, shall deliver such other documentation prescribed by applicable law or reasonably requested by the Borrower or the Agent as will enable the Borrower or the Agent to determine whether or not such Lender is subject to backup withholding or information reporting requirements. Without limiting the generality of the foregoing, on or prior to the Closing Date and on or prior to any other date that a Person becomes a Lender hereunder or a Loan is transferred or assigned (and from time to time thereafter upon the reasonable request of the Borrower),

(i) Each Lender that is a "United States person" as defined in Section 7701(a)(30) of the Code shall provide the Company with a duly completed and executed United States Internal Revenue Service ("**IRS**") Form W-9; and

(ii) Each Lender that is not such a "United States person" (a "**Foreign Lender**") shall provide the Company with a duly completed and executed original of the appropriate version of IRS Form W-8 (which in the case of a Foreign Lender providing an IRS Form W-8IMY, shall be accompanied by a duly completed and executed original IRS Form W-8ECI, IRS Form W-8BEN, IRS Form W-8BEN-E, or IRS Form W-9, as applicable) from each of the Foreign Lender's beneficial owners), and if the Foreign Lender is claiming the benefit of the exemption for portfolio interest under Section 881(c) of the Code, a customary certificate as to the Foreign Lender (or its beneficial owners) eligibility that is reasonably satisfactory to the Borrower and Agent.

Each Lender agrees that if any form or certification it previously delivered expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Borrower and the Agent in writing of its legal inability to do so.

(c) The Agent, acting solely for this purpose as a non-fiduciary agent of the Borrower, shall maintain at one of its offices in the United Sates, a register for the recordation of the names and addresses of the applicable Lenders, and the applicable Commitments of, and principal amounts (and stated interest) of the applicable Loans owing to, each Lender pursuant to the terms hereof from time to time (the "**Register**"). The entries in the Register shall be conclusive absent manifest error, and the Borrower, the Agent, and the applicable Lenders shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as a Lender hereunder for all purposes of this Agreement. The Register shall be available for inspection by the Borrower and any Lender, at any reasonable time and from time to time upon reasonable prior notice.

Part 3 - Additional Representations:

Borrower represents and warrants that as of the Closing Date and, subject to any written updates of the information set forth below by Borrower to each Lender and Agent, each Borrowing Date:

a) Its chief executive office is located at: 2051 Ringwood Ave, San Jose, CA 95131

b) Its Equipment is located at: 2051 Ringwood Ave, San Jose, CA 95131, 518 Sycamore Drive, Milpitas, CA 95035 and 12500 Network Blvd, Suite 112, San Antonio, TX 78249

c) Its Inventory is located at: [Borrower has no inventory]

d) Its Records are located at: 2051 Ringwood Ave, San Jose, CA 95131

e) In addition to its chief executive office, Borrower maintains offices or operates its business at the following locations: 518 Sycamore Drive, Milpitas, CA 95035 and 12500 Network Blvd, Suite 112, San Antonio, TX 78249

f) Other than its full corporate name, Borrower has conducted business using the following trade names or fictitious business names: N/A

g) Its state identification number is: _____ (CA ID)

h) Its U.S. federal tax identification number is: _____

i) Including Borrower's Primary Operating Account identified in Section 6 above, Borrower maintains the following Deposit Accounts and investment accounts:

Institution Name:	
Address:	
ABA No.:	
Contact Name:	
Phone No.:	
E-mail:	
Account Title:	
Account No.:	

Institution Name:	
Address:	
ABA No.:	
Contact Name:	
Phone No.:	
E-mail:	
Account Title:	
Account No.:	

Institution Name:	
Address:	
ABA No.:	
Contact Name:	
Phone No.:	
E-mail:	
Account Title:	
Account No.:	

Institution Name:	
Address:	
ABA No.:	
Contact Name:	
Phone No.:	
E-mail:	
Account Title:	
Account No.:	

Part 4 - Additional Loan Documents:

Form of Promissory Note	Exhibit “A”
Form of Borrowing Request	Exhibit “B”
Form of Compliance Certificate	Exhibit “C”
Lender Commitments	Schedule 1

[*Remainder of this page intentionally left blank; signature page follows*]

IN WITNESS WHEREOF, the parties have executed this Supplement as of the date first above written.

BORROWER:

RANI THERAPEUTICS, LLC

By: /s/ Svai Sanford
Name: Svai Sanford
Title: Chief Financial Officer

Address for Notices:

2051 Ringwood Ave
San Jose, CA 95131
Attn: Svai Sanford, CFO
Email:
Phone #

GUARANTOR:

RANI THERAPEUTICS HOLDINGS, INC.

By:
Name: Svai Sanford
Title: Chief Financial Officer

Address for Notices:

2051 Ringwood Ave
San Jose, CA 95131
Email:
Phone #
Phone #

RANI MANAGEMENT SERVICES, INC.

By: /s/ Svai Sanford
Name: Svai Sanford
Title: Chief Financial Officer

Address for Notices:

2051 Ringwood Ave
San Jose, CA 95131
Email:
Phone #
Phone #

AGENT:

AVENUE VENTURE OPPORTUNITIES FUND, L.P.

By: Avenue Venture Opportunities Partners, LLC
Its: General Partner

By: /s/ Sonia Gardner
Name: Sonia Gardner
Title: Member

Address for Notices:

11 West 42nd Street, 9th Floor
New York, New York 10036
Attn: Todd Greenbarg, Senior Managing Director
Email:
Phone:

LENDER:

AVENUE VENTURE OPPORTUNITIES FUND, L.P.

By: Avenue Venture Opportunities Partners, LLC
Its: General Partner

By: /s/ Sonia Gardner
Name: Sonia Gardner
Title: Member

Address for Notices:

11 West 42nd Street, 9th Floor
New York, New York 10036
Attn: Todd Greenbarg, Senior Managing Director
Email:
Phone:

EXHIBIT "A"

FORM OF PROMISSORY NOTE

[Note No. X-XXX]

$ _____

[_____], 20__

The undersigned ("Borrower") promises to pay to _____ ("Lender"), at such place as Lender may designate in writing, in lawful money of the United States of America, the principal sum of _____ Dollars ($_____), with interest thereon from the date hereof until maturity, whether scheduled or accelerated, at a variable rate per annum equal to the greater of (i) ten and thirty-five one hundredths percent (10.35%) and (ii) the Prime Rate plus the sum of five and six-tenths percent (5.60%) (the "Designated Rate"), according to the payment schedule described herein, except as otherwise provided herein. In addition, on the Maturity Date, the Borrower promises to pay to the order of Lender (i) all principal and accrued interest then remaining unpaid and (ii) the Final Payment (as defined in the Supplement to the Loan Agreement (as defined herein)).

This Note is one of the Notes referred to in, and is entitled to all the benefits of, a Loan and Security Agreement, dated as of August 8, 2022, among Borrower, Lender, the other lender party(ies) thereto and Agent (as the same may be amended, restated or supplemented from time to time, the "Loan Agreement"). Each capitalized term not otherwise defined herein shall have the meaning set forth in the Loan Agreement. The Loan Agreement contains provisions for the acceleration of the maturity of this Note upon the happening of certain stated events.

Principal of and interest on this Note shall be payable as provided under Section 1(d) of Part 2 of the Supplement to the Loan Agreement.

This Note was issued with "original issue discount" within the meeting of Sections 1272, 1273 and 1275 of the Internal Revenue Code of 1986, as amended, and the rules and regulations thereunder. Please contact [Chief Financial Officer], Rani Therapeutics, LLC, 2051 Ringwood Ave., San Jose, CA 95131, [telephone number], to obtain information regarding issue price, the amount of original issue discount and the yield to maturity.

This Note may be prepaid only as permitted under Section 2 of Part 2 of the Supplement to the Loan Agreement.

Any unpaid payments of principal or interest on this Note shall bear interest from their respective maturities, whether scheduled or accelerated, at a rate per annum equal to the Default Rate, compounded monthly. Borrower shall pay such interest on demand.

Interest, charges and fees shall be calculated for actual days elapsed on the basis of a 360-day year, which results in higher interest, charge or fee payments than if a 365-day year were used. In no event shall Borrower be obligated to pay interest, charges or fees at a rate in excess of the highest rate permitted by applicable law from time to time in effect.

If Borrower is late in making any scheduled payment under this Note by more than five (5) days, Borrower agrees to pay a "late charge" of five percent (5%) of the installment due, but not less than fifty dollars ($50) for any one such delinquent payment. This late charge may be charged by Lender for the purpose of defraying the expenses incidental to the handling of such delinquent amounts. Borrower acknowledges that such late charge represents a reasonable sum considering all of the circumstances existing on the date of this Note and represents a fair and reasonable estimate of the costs that will be sustained by Lender due to the failure of Borrower to make timely payments. Borrower further agrees that proof of actual damages would be costly and inconvenient. Such late charge shall be paid without prejudice to the right of Lender to collect any other amounts provided to be paid or to declare a default under this Note or any of the other Loan Documents or from exercising any other rights and remedies of Lender.

This Note shall be governed by, and construed in accordance with, the laws of the State of California, excluding those laws that direct the application of the laws of another jurisdiction.

Borrower's execution and delivery of this Note via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) shall constitute effective execution and delivery of this Note and agreement to and acceptance of the terms hereof for all purposes. The fact that this Note is executed, signed, stored or delivered electronically shall not prevent the assignment or transfer by Lender of this Note pursuant to the terms of the Loan Agreement or the enforcement of the terms hereof. Physical possession of the original of this Note or any paper copy thereof shall confer no special status to the bearer thereof. In no event shall an original ink-signed paper copy of this Note be required for any exercise of Lender's rights hereunder.

RANI THERAPEUTICS, LLC

By: _____
Name: _____
Its: _____

EXHIBIT "B"

FORM OF BORROWING REQUEST

[__], 202__

Avenue Venture Opportunities Fund, L.P.
11 West 42nd Street, 9th Floor
New York, New York 10036

Re: RANI THERAPEUTICS, LLC

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement, dated as of August 8, 2022 (as amended, restated or supplemented from time to time, the "Loan Agreement"; the capitalized terms used herein as defined therein), among AVENUE VENTURE OPPORTUNITIES FUND, L.P., as administrative agent and collateral agent ("Agent"), and as a lender (in such capacity, and together with other lenders from time to time party to the Loan Agreement, collectively, "Lenders", and each a "Lender").

The undersigned is the _____ of Borrower and hereby requests on behalf of Borrower a Loan under the Loan Agreement, and in that connection certifies as follows:

1. The amount of the proposed Loan is _____ Dollars ($_____). The Borrowing Date of the proposed Loan is _____ (the "Borrowing Date").

(a) On the Borrowing Date,

(i) Lender will wire $[_____] less fees and expenses to be deducted on the Borrowing Date of (a) [$___] in respect to the Commitment Fee, of which [$___] has been paid to Lender prior to the date hereof, (b) $[_____] in respect to the interest fee, and (c) $[_____] in respect to the legal fees for net proceeds of $[_____].

to Borrower pursuant to the following wire instructions:

Institution Name:	
Address:	
ABA No.:	
Contact Name:	
Phone No.:	
E-mail:	
Account Title:	
Account No.:	

(b) On the Borrowing Date, Lender will wire $[_____] to GCA Law Partners LLP for fees and expenses pursuant to the following wire instructions:[1]

Institution Name:	
ABA No.:	
Account Title:	
Account No.:	
Reference:	
Confirm remittance:	

2. As of this date, no Default or Event of Default has occurred and is continuing, or will result from the making of the proposed Loan, the representations and warranties of Borrower contained in Article 3 of the Loan Agreement and Part 3 of the Supplement are true and correct in all material respects other than those representations and warranties expressly referring to a specific date which are true and correct in all material respects as of such date, and the conditions precedent described in Sections 4.1 and/or 4.2 of the Loan Agreement and Part 2 of the Supplement, as applicable, have been met.

3. No event has occurred that has had or could reasonably be expected to have a Material Adverse Change.

4. Borrower's most recent financial statements, financial projections or business plan dated _____, as reviewed by Borrower's Board of Directors, are enclosed herewith in the event such financial statements, financial projections or business plan have not been previously provided to Agent.

Remainder of this page intentionally left blank; signature page follows

[1] To be included in the Borrowing Request on the Closing Date. The executed Borrowing Request must be delivered 2 Business Days prior to the Closing Date.

Borrower shall notify you promptly before the funding of the Loan if any of the matters to which I have certified above shall not be true and correct on the Borrowing Date.

Very truly yours,

RANI THERAPEUTICS, LLC

By: _____
Its: _____

By: _____
Name: _____
Title:* _____

* Must be executed by Borrower's Chief Financial Officer or other executive officer.

EXHIBIT "C"

FORM OF

COMPLIANCE CERTIFICATE

Avenue Venture Opportunities Fund, L.P.
11 West 42nd Street, 9th Floor
New York, New York 10036

Re: RANI THERAPEUTICS, LLC

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement, dated as of August 8, 2022 (as the same has been and may be supplemented, amended and modified from time to time, the "Loan Agreement," the capitalized terms used herein as defined therein), among AVENUE VENTURE OPPORTUNITIES FUND, L.P., as administrative agent and collateral agent ("Agent"), and as a lender (in such capacity, and together with other lenders from time to time party to the Loan Agreement, collectively, "Lenders", and each a "Lender"), and RANI THERAPEUTICS, LLC ("Borrower"), RANI THERAPEUTICS HOLDINGS, INC., as a guarantor, and RANI MANAGEMENT SERVICES, INC. (collectively, with Rani Therapeutics Holdings, Inc., "Guarantors", and each a "Guarantor").

The undersigned authorized representative of Borrower and Guarantors hereby certifies in such capacity that in accordance with the terms and conditions of the Loan Agreement, (i) no Default or Event of Default has occurred and is continuing, except as noted below, and (ii) Borrower is in compliance for the financial reporting period ending _____ with all required financial reporting under the Loan Agreement, except as noted below. Attached herewith are the required documents supporting the foregoing certification. The undersigned authorized representative of Borrower further certifies in such capacity that: (a) the accompanying financial statements have been prepared in accordance with Borrower's and Guarantors' past practices applied on a consistent basis, or in such manner as otherwise disclosed in writing to Agent, throughout the periods indicated; and (b) the financial statements fairly present in all material respects the financial condition and operating results of Borrower, Guarantors and their Subsidiaries, if any, as of the dates, and for the periods, indicated therein, subject to the absence of footnotes and normal year-end audit adjustments (in the case of interim monthly financial statements), except as explained below.

Please provide the following requested information and indicate compliance status by circling (or otherwise indicating) Yes/No/N/A under "Included/Complies":

REPORTING REQUIREMENT	REQUIRED	INCLUDED/COMPLIES
Balance Sheet, Income Statement & Cash Flow Statement	Monthly, within 30 days	YES / NO / N/A
Operating Budgets, 409(A) Valuations & Updated Capitalization Tables	As modified	YES / NO / N/A
Annual Financial Statements	Annually, within 120 day of fiscal year-end	YES / NO / N/A
Board Packages	As modified	YES / NO / N/A

Date of most recent Board-approved budget/plan _____

Any change in budget/plan since version most recently delivered to Agent YES / NO / N/A
If Yes, please attach

FINANCIAL COVENANT	REQUIRED	ACTUAL	INCLUDED/COMPLIES
Number of Drug Products in clinical development (commencing on first anniversary of Closing Date)	2		YES / NO / N/A

EQUITY & CONVERTIBLE NOTE FINANCINGS

Please provide the following information (if applicable) regarding Borrower's most-recent equity and/or convertible note financing each time this Certificate is delivered to Agent

Date of Last Round Raised: _____

Has there been any new financing since the last Compliance Certificate submitted? YES / NO
If "YES" please attach a copy of the Capitalization Table

Date Closed: _____ Series: _____ Per Share Price: $ _____
Amount Raised: _____

Any stock splits since date of last report? YES / NO
If yes, please provide any information on stock splits which would affect valuation:

Any dividends since date of last report? YES / NO
If yes, please provide any information on dividends which would affect valuation:

Any unusual terms? (i.e., Anti-dilution, multiple preference, etc.) YES / NO
If yes, please explain:

ACCOUNT CONTROL AGREEMENTS

Pursuant to Section 6.11 of the Loan Agreement, Borrower represents and warrants that: (i) as of the date hereof, it maintains only those deposit and investment accounts set forth below; and (ii) to the extent required by Section 6.11 of the Loan Agreement, a control agreement has been executed and delivered to Agent with respect to each such account ***[Note: If Borrower has established any new account(s) since the date of the last compliance certificate, please so indicate]***.

Deposit Accounts[2]

	Name of Institution	Account Number	Control Agt. In place?	Complies	New Account
1.)	Silicon Valley Bank	3303743034	YES / NO	YES / NO	YES / NO
2.)	_____	_____	YES / NO	YES / NO	YES / NO

[2] Company: Please complete with existing accounts.

Investment Accounts

	Name of Institution	Account Number	Control Agt. In place?	Complies	New Account
1.)	Silicon Valley Bank	19-SV2186	YES / NO	YES / NO	YES / NO
2.)			YES / NO	YES / NO	YES / NO
3.)			YES / NO	YES / NO	YES / NO
4.)			YES / NO	YES / NO	YES / NO

AGREEMENTS WITH PERSONS IN POSSESSION OF TANGIBLE COLLATERAL

Pursuant to Section 5.9(e) of the Loan Agreement, Borrower represents and warrants that: (i) as of the date hereof, tangible Collateral is located at the addresses set forth below; and (ii) to the extent required by Section 5.9(e) of the Loan Agreement, a Waiver has been executed and delivered to Agent, or such Waiver has been waived by Agent, ***[Note: If Borrower has located Collateral at any new location since the date of the last compliance certificate, please so indicate]*.**

	Location of Collateral	Value of Collateral at such Locations	Waiver In place?	Complies?	New Location?
1.)	2051 Ringwood, San Jose, CA	$	YES / NO	YES / NO	YES / NO
2.)	518 Sycamore, Milpitas, CA	$	YES / NO	YES / NO	YES / NO
3.)	12500 Network, Suite 112, San Antonio, TX	$	YES / NO	YES / NO	YES / NO
4.)		$	YES / NO	YES / NO	YES / NO

SUBSIDIARIES AND OTHER PERSONS

Pursuant to Section 6.14(a) of the Loan Agreement, Borrower represents and warrants that: (i) as of the date hereof, it has directly or indirectly acquired or created, or it intends to directly or indirectly acquire or create, each Subsidiary or other Person described below; and (ii) such Subsidiary or Person has been made a co-borrower under the Loan Agreement or a guarantor of the Obligations ***[Note: If Borrower has acquired or created any Subsidiary since the date of the last compliance certificate, please so indicate]*.**

	Name:	Jurisdiction of formation or organization:[3]	Co-borrower or guarantor?	Complies?	New Subsidiary or Person?
1.)			YES / NO	YES / NO	YES / NO
2.)			YES / NO	YES / NO	YES / NO
3.)			YES / NO	YES / NO	YES / NO
4.)			YES / NO	YES / NO	YES / NO

EXPLANATIONS

[*Remainder of this page intentionally left blank; signature page follows*]

[3] Under the "Explanations" heading (see below) please include a description of such Subsidiary's or Person's fully diluted capitalization and Borrower's purpose for its acquisition or creation of such Subsidiary if such information has not been previously furnished to Agent.

Very truly yours,

RANI THERAPEUTICS, LLC

By: _____
Its: _____

By: _____
Name: _____
Title:* _____

* Must be executed by Borrower's Chief Financial Officer or other executive officer.

SCHEDULE 1

LENDER COMMITMENTS

TRANCHE 1A COMMITMENTS

Lenders	**Tranche 1A Commitment**	**Tranche 1A Commitment Percentage**
Avenue Venture Opportunities Fund, L.P.	$15,000,000	100%
TOTAL COMMITMENTS	$15,000,000	100%

TRANCHE 1B COMMITMENTS

Lenders	**Tranche 1B Commitment**	**Tranche 1B Commitment Percentage**
Avenue Venture Opportunities Fund, L.P.	$___	__%
[Lender]	$___	__%
[Lender]	$___	__%
TOTAL COMMITMENTS	$15,000,000	100%

Exhibit 10.3

THIS WARRANT AND THE UNDERLYING SECURITIES REPRESENTED BY THIS WARRANT HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE AND DISTRIBUTION THEREOF, AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT") OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF (A) REGISTRATION UNDER THE SECURITIES ACT, (B) AN OPINION OF COUNSEL IN A FORM REASONABLY ACCEPTABLE TO RANI THERAPEUTICS HOLDINGS, INC. THAT SUCH REGISTRATION IS NOT REQUIRED DUE TO AN EXEMPTION THEREFROM UNDER THE SECURITIES ACT AND ANY APPLICABLE STATE SECURITIES LAWS OR (C) RANI THERAPEUTICS HOLDINGS, INC. OTHERWISE SATISFIES ITSELF THAT SUCH TRANSACTION IS COMPLIANT WITH SUCH LAWS.

Date of Issuance: August 8, 2022

WARRANT TO PURCHASE

SHARES OF CLASS A COMMON STOCK OF

RANI THERAPEUTICS HOLDINGS, INC.

(Void after August 8, 2027)

This certifies that AVENUE VENTURE OPPORTUNITIES FUND, L.P., a Delaware limited partnership, or its permitted assigns ("Holder"), for value received and subject to the terms and conditions hereinafter set forth, is entitled to purchase from RANI THERAPEUTICS HOLDINGS, INC. a Delaware corporation ("Company"), the Applicable Number (hereinafter defined) of fully paid and nonassessable shares of the Company's Class A common stock, par value $0.0001 per share (the "Common Stock"), for cash, at a purchase price per share equal to the Stock Purchase Price (hereinafter defined). Holder may also exercise this Warrant on a cashless or "net issuance" basis as described in Section 1(b) below, and this Warrant shall be deemed to have been exercised in full on such basis on the Expiration Date (hereinafter defined), to the extent not fully exercised prior to such date and pursuant to Section 1(b) below. For the avoidance of doubt, Company can settle the exercise of this Warrant in unregistered shares of the Common Stock. This Warrant is issued in connection with that certain Loan and Security Agreement and Supplement thereto, both of even date herewith (as amended, restated and supplemented from time to time, the "Loan Agreement" and the "Supplement", respectively), among Company, as a guarantor, Rani Therapeutics, LLC, a California limited liability company, as borrower, Rani Management Services, Inc., as a guarantor, Holder, as a lender, and as administrative agent and collateral agent. Capitalized terms used herein and not otherwise defined in this Warrant shall have the meaning(s) ascribed to them in the Loan Agreement and the Supplement, unless the context would otherwise require.

"Applicable Number" means 76,336 shares of Common Stock.

"Stock Purchase Price" means $11.79 per share of Common Stock. Subject to Sections 4.3 and 4.8, this Warrant may be exercised at any time or from time to time up to and including 5:00 p.m. (Pacific time) on August 8, 2027 (the "Expiration Date"), upon surrender to Company at its principal office at 2051 Ringwood Avenue, San Jose, CA 95131 (or at such other location as Company may advise Holder in writing) of this Warrant properly endorsed with the Form of Subscription attached hereto duly completed and signed and upon payment in cash or by check of the aggregate Stock Purchase Price for the number of shares for which this Warrant is being exercised determined in

accordance with the provisions hereof. The Stock Purchase Price and the number of shares purchasable hereunder are subject to further adjustment as provided in Section 4 of this Warrant.

This Warrant is subject to the following terms and conditions:

1. Exercise; Issuance of Certificates; Payment for Shares.

(a) Unless an election is made pursuant to clause (b) of this Section 1, this Warrant shall be exercisable at the option of Holder, at any time or from time to time, on or before the Expiration Date for all or any portion of the shares of Common Stock (but not for a fraction of a share) which may be purchased hereunder for the Stock Purchase Price multiplied by the number of shares to be purchased. Company agrees that the shares of Common Stock purchased under this Warrant shall be and are deemed to be issued to Holder as the record owner of such shares as of the close of business on the date on which the form of subscription shall have been delivered and payment made for such shares. Subject to the provisions of Section 2, shares of Common Stock so purchased shall be delivered in either book-entry or certificated form, together with any other securities or property to which Holder is entitled upon such exercise, to Holder by Company at Company's expense within a reasonable time after the rights represented by this Warrant have been so exercised. Except as provided in clause (b) of this Section 1, in case of a purchase of less than all the shares which may be purchased under this Warrant, Company shall cancel this Warrant and execute and deliver a new Warrant or Warrants of like tenor for the balance of the shares purchasable under this Warrant surrendered upon such purchase to Holder within a reasonable time. If the Common Stock is delivered in certificated form, each stock certificate so delivered shall be in such denominations of Common Stock as may be requested by Holder and shall be registered in the name of such Holder or such other name as shall be designated by such Holder, subject to the limitations contained in Section 2.

(b) Holder, in lieu of exercising this Warrant by the cash payment of the Stock Purchase Price pursuant to clause (a) of this Section 1, may elect, at any time on or before the Expiration Date, to surrender this Warrant and receive that number of shares of Common Stock computed using the following formula:

$$X = \frac{Y(A - B)}{A}$$

Where: X = the number of shares of Common Stock to be issued to Holder.

Y = the number of shares of Common Stock that Holder would otherwise have been entitled to purchase hereunder pursuant to Section 1(a) (or such lesser number of shares as Holder may designate in the case of a partial exercise of this Warrant).

A = the closing price on the last trading day prior to exercise of the Warrant.

B = the Stock Purchase Price then in effect.

Election to exercise under this Section 1(b) may be made by delivering a signed form of subscription to Company via facsimile, to be followed by delivery of this Warrant. Notwithstanding anything to the contrary contained in this Warrant, if as of the close of business on the last business day preceding the Expiration Date this Warrant remains unexercised as to all or a portion of the shares of Common Stock purchasable hereunder, then effective as 9:00 a.m. (Pacific time) on the Expiration Date, Holder shall be deemed, automatically and without need for notice to Company, to have elected to exercise this Warrant in full pursuant to the provisions of this Section 1(b), and upon surrender of this Warrant shall be entitled to receive that number of shares of Common Stock computed using the above formula, provided that the application of such formula as of the Expiration Date yields a positive number for "X".

2. Limitation on Transfer.

(a) This Warrant and the Common Stock shall not be transferable except upon the conditions specified in this Section 2, which conditions are intended to ensure compliance with the provisions of the Securities Act of 1933, as amended (the "Securities Act"). Each holder of this Warrant or the Common Stock issuable hereunder will cause any proposed transferee of the Warrant or Common Stock to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Section 2. Notwithstanding the foregoing and any other provision of this Section 2 but subject to the last sentence of Section 2(c), Holder may freely transfer all or part of this Warrant or the shares issuable upon exercise of this Warrant (or the securities issuable, directly or indirectly, upon conversion of the shares, if any) at any time to any affiliate of a lender under the Loan Agreement, by giving Company notice of the portion of the Warrant being transferred setting forth the name, address and taxpayer identification number of the transferee and surrendering this Warrant to Company for reissuance to the transferees(s) (and Holder, if applicable).

(b) Each certificate representing (i) this Warrant, (ii) the Common Stock (or applicable balance account at the Company's transfer agent), and (iii) any other securities issued in respect to the Common Stock issued upon any stock split, stock dividend, recapitalization, merger, consolidation or similar event, shall (unless otherwise permitted by the provisions of this Section 2 or unless such securities have been registered under the Securities Act or sold under Rule 144) be stamped or otherwise imprinted with a legend substantially in the following form (in addition to any legend required under applicable state securities laws):

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE AND DISTRIBUTION THEREOF. NEITHER THE SECURITIES REPRESENTED BY THIS CERTIFICATE NOR THE SECURITIES INTO WHICH ANY OF THESE SECURITIES ARE EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF (A) REGISTRATION UNDER THE SECURITIES ACT, (B) AN OPINION OF COUNSEL IN A FORM REASONABLY ACCEPTABLE TO COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED DUE TO AN EXEMPTION THEREFROM UNDER SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS OR (C) RANI THERAPEUTICS HOLDINGS, INC. OTHERWISE SATISFIES ITSELF THAT SUCH TRANSACTION IS COMPLIANT WITH SUCH LAWS.

(c) Holder of this Warrant and each person to whom this Warrant is subsequently transferred represents and warrants to Company and agrees (by acceptance of such transfer) that it will not transfer this Warrant (or securities issuable upon exercise hereof unless a registration statement under the Securities Act was in effect with respect to such securities at the time of issuance thereof) unless (i) there is an effective registration statement under the Securities Act and applicable state securities laws covering any such transaction, (ii) pursuant to Rule 144 under the Securities Act (or any other rule under the Securities Act relating to the disposition of securities), (iii) Company receives an opinion of counsel, reasonably satisfactory to Company, that an exemption from such registration is available or (iv) the Company otherwise satisfies itself that such transaction is exempt from registration. Notwithstanding the foregoing or any other provision of this Section 2, Holder shall not transfer this Warrant (or securities issuable upon exercise hereof, or securities issuable, directly or indirectly, upon conversion of such securities, if any) to any competitor of Company, as determined in good faith by the Board of Directors of Company (the "Board"), without the prior written consent of Company.

3. Shares to be Fully Paid; Reservation of Shares. Company covenants and agrees that all shares of Common Stock which may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be duly authorized, validly issued, fully paid and nonassessable and free from all preemptive rights of any stockholder and free of all taxes, liens and charges with respect to the issue thereof (except that such shares of Common Stock will be subject to the transfer restrictions provided for herein and except for any tax imposed on Holder with respect to the gain on the exercise of the Warrant). Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, Company will at all times have authorized and reserved, for the

purpose of issue or transfer upon exercise of the subscription rights evidenced by this Warrant, a sufficient number of shares of authorized but unissued Common Stock, or other securities and property, when and as required to provide for the exercise of the rights represented by this Warrant. Company will take all such action as may be necessary to assure that such shares of Common Stock may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of any domestic securities exchange upon which the Common Stock may be listed. Company will not take any action which would result in any adjustment of the Stock Purchase Price (as described in Section 4 hereof) (i) if the total number of shares of Common Stock issuable after such action upon exercise of all outstanding warrants, together with all shares of Common Stock then outstanding and all shares of Common Stock then issuable upon exercise of all options and upon the conversion of all convertible securities then outstanding, would exceed the total number of shares of Common Stock then authorized by Company's Certificate of Incorporation (as amended and restated from time to time, the "Charter") or (ii) if the par value per share of the Common Stock would exceed the Stock Purchase Price.

4. Adjustment of Stock Purchase Price and Number of Shares. The Stock Purchase Price and the number of shares purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the occurrence of certain events described in this Section 4. Upon each adjustment of the Stock Purchase Price, Holder of this Warrant shall thereafter be entitled to purchase, at the Stock Purchase Price resulting from such adjustment, the number of shares obtained by multiplying the Stock Purchase Price in effect immediately prior to such adjustment by the number of shares purchasable pursuant hereto immediately prior to such adjustment, and dividing the product thereof by the Stock Purchase Price resulting from such adjustment.

4.1 Subdivision or Combination of Stock. In case Company shall at any time subdivide its outstanding shares of Common Stock into a greater number of shares, the Stock Purchase Price in effect immediately prior to such subdivision shall be proportionately reduced, and conversely, in case the outstanding shares of Common Stock of Company shall be combined into a smaller number of shares, the Stock Purchase Price in effect immediately prior to such combination shall be proportionately increased.

4.2 Dividends. If at any time or from time to time the holders of Common Stock (or any shares of stock or other securities at the time receivable upon the exercise of this Warrant) shall have received or become entitled to receive,

(a) Common Stock, or any shares of stock or other securities whether or not such securities are at any time directly or indirectly convertible into or exchangeable for Common Stock,

(b) any cash paid or payable including as a cash dividend, or

(c) Common Stock or other or additional stock or other securities or property (including cash) by way of spin off, split-up, reclassification, combination of shares or similar corporate rearrangement, (other than shares of Common Stock issued as a stock split, adjustments in respect of which shall be covered by the terms of Section 4.1 above),

then and in each such case, Holder hereof shall, upon the exercise of this Warrant, be entitled to receive, in addition to the number of shares of Common Stock receivable thereupon, and without payment of any additional consideration therefor, the amount of stock and other securities and property (including cash in the cases referred to in clauses (b) and (c) above) which such Holder would hold on the date of such exercise had it been the holder of record of such Common Stock as of the date on which holders of Common Stock received or became entitled to receive such shares and/or all other additional stock and other securities and property.

4.3 Change of Control. In the event of a Change of Control (as hereinafter defined), this Warrant shall be automatically exchanged for a number of shares of Company's securities, such number of shares being equal to the maximum number of shares issuable pursuant to the terms hereof (after taking into account all adjustments described herein) had Holder elected to exercise this Warrant immediately prior to the closing of such Change of

Control and purchased all such shares pursuant to the cashless exercise provision set forth in Section 1(b) hereof. "Change of Control" shall mean any sale, exclusive license (outside of the ordinary course), or other disposition of all or substantially all of the assets of Company, any reorganization, consolidation, merger or other transaction involving Company where the holders of Company's securities before the transaction beneficially own less than 50% of the outstanding voting securities of the surviving entity after the transaction; provided that an issuance of equity securities for the primary purpose of raising capital shall not be considered a Change of Control under this Warrant. This Warrant shall terminate upon Holder's receipt of the number of shares of Company's equity securities described in this Section 4.3.

4.4 Reserved.

4.5 Notice of Adjustment. Upon any adjustment of the Stock Purchase Price, and/or any increase or decrease in the number of shares purchasable upon the exercise of this Warrant, Company shall give written notice thereof to Holder pursuant to Section 12. The notice, which may be substantially in the form of Exhibit "A" attached hereto, shall be signed by an authorized representative of Company and shall state the Stock Purchase Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable at such price upon the exercise of this Warrant, setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based.

4.6 Other Notices. If at any time:

(a) Company shall declare any cash dividend upon its Common Stock;

(b) Company shall declare any dividend upon its Common Stock payable in stock or make any special dividend or other distribution to the holders of its Common Stock;

(c) there shall be any capital reorganization or reclassification of the capital stock of Company, or consolidation or merger of Company with, or sale of all or substantially all of its assets to, another entity;

(d) there shall be a voluntary or involuntary dissolution, liquidation or winding-up of Company; or

(e) Company shall take or propose to take any other action, notice of which is actually provided to holders of the Common Stock;

then, in any one or more of said cases, Company shall give Holder, pursuant to Section 12, (i) at least 10 days' prior written notice of the date on which the books of Company shall close or a record shall be taken for such dividend, distribution or for determining rights to vote in respect of any such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up, or other action and (ii) in the case of any such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up, or other action, at least 10 days' written notice of the date when the same shall take place. Any notice given in accordance with the foregoing clause (i) shall also specify, in the case of any such dividend or distribution rights, the date on which the holders of Common Stock shall be entitled thereto. Any notice given in accordance with the foregoing clause (ii) shall also specify the date on which the holders of Common Stock shall be entitled to exchange their Common Stock for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up, or other action as the case may be.

4.7 Reserved.

4.8 Holder's Exercise Limitations. The Company shall not be required to effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 1 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable notice of

exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, the Conversion Option set forth in the Supplement) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 4.8, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 4.8 applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a notice of exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 4.8, in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the SEC, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the transfer agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one trading day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon written election by Holder which is delivered to the Company prior to the issuance of any Common Stock to such Holder, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 4.8, provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 4.8 shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 4.8 to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

5. Issue Tax. The issuance of certificates for shares of Common Stock upon the exercise of this Warrant shall be made without charge to Holder of this Warrant for any issue tax in respect thereof; provided, however, that Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any certificate in a name other than that of the then Holder of this Warrant being exercised, and Holder shall pay any tax imposed on holder with respect to any gain on the exercise of the Warrant.

6. Closing of Books. Company will at no time close its transfer books, or instruct its transfer agent to close the Company's transfer books, against the transfer of this Warrant or of any shares of Common Stock issued or issuable upon the exercise of this Warrant in any manner which interferes with the timely exercise of this Warrant unless Company or its transfer agent is at the same time closing the Company's transfer books for all Common Stock.

7. No Voting Rights; Limitation of Liability. Nothing contained in this Warrant shall be construed as conferring upon Holder hereof the right to vote or to consent as a stockholder in respect of meetings of stockholders for the election of directors of Company or any other matters or any rights whatsoever as a stockholder of Company. No dividends or interest shall be payable in respect of this Warrant or the interest represented hereby or the shares purchasable hereunder until, and only to the extent that, this Warrant shall have been exercised; provided, however, that if any dividends are due or paid at any time on the underlying securities for which this Warrant is exercisable, then upon exercise, the securities issued to Holder shall be deemed to have accrued dividends and be paid identical dividends from the same time as the outstanding shares for which this Warrant is exercisable were first issued (or, if later, the date of this Warrant). No provisions hereof, in the absence of affirmative action by Holder to purchase shares of Common Stock, and no mere enumeration herein of the rights or privileges of Holder hereof, shall give rise to any liability of such Holder for the Stock Purchase Price or as a stockholder of Company, whether such liability is asserted by Company or by its creditors.

8. Reserved.

9. Rights and Obligations Survive Exercise of Warrant. The rights and obligations of Company, of Holder of this Warrant and of the holder of shares of Common Stock issued upon exercise of this Warrant, contained in Sections 6, 17.4, 17.7 and 18 shall survive the exercise of this Warrant.

10. Modification and Waiver. This Warrant and any provision hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by Company and the Holder.

11. Notices. Any notice, request or other document required or permitted to be given or delivered to Holder or Company shall be deemed to have been given (i) upon receipt if delivered personally or by courier, (ii) upon confirmation of receipt if by telecopy or (iii) three business days after deposit in the US mail, with postage prepaid and certified or registered, to each such Holder at its address as shown on the books of Company or to Company at the address indicated therefor in the opening paragraphs of this Warrant (or at such other location as Company may advise Holder in writing) and Attention: Chief Financial Officer.

12. Survival of Certain Obligations. All of the covenants and agreements of Company shall inure to the benefit of and be binding upon the successors and permitted assigns of Holder. Company will, at the time of the exercise of this Warrant, in whole or in part, upon request of Holder but at Company's expense, acknowledge in writing its continuing obligation to Holder in respect of any rights to which Holder shall continue to be entitled after such exercise in accordance with this Warrant; provided, that the failure of Holder to make any such request shall not affect the continuing obligation of Company to Holder in respect of such rights.

13. Descriptive Headings and Governing Law. The descriptive headings of the several sections and paragraphs of this Warrant are inserted for convenience only and do not constitute a part of this Warrant. This Warrant shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of the State of Delaware.

14. Lost or Rejected Warrants or Stock Certificates. Company agrees that upon receipt of evidence reasonably satisfactory to Company and its transfer agent of the loss, theft, destruction, or mutilation of any Warrant or stock certificate and, upon receipt by the Company of (i) an affidavit of that fact by the person so claiming such loss, theft, destruction or mutilation, (ii) an indemnity or surety bond in such form and amount as is reasonably

satisfactory to Company and its transfer agent and (iii) such other documents reasonably requested by the Company or its transfer agent, the Company at its expense will make and deliver a new Warrant or stock certificate, of like tenor, in lieu of the lost, stolen, destroyed or mutilated Warrant or stock certificate. If at any time the electronic original of this Warrant is rejected by any person (including, but not limited to, paying or escrow agents) or any person fails to comply with the terms of this Warrant based on being presented to such person as an electronic record or a printout hereof, or any signature hereto being in electronic form, Company shall, promptly upon Holder's request and without indemnity, execute and deliver to Holder, in lieu of the electronic original version of this Warrant, a new warrant of like tenor and amount in paper form with original ink signatures; provided that the second, third, fourth, fifth and sixth sentences of Section 18 (Counterparts; Facsimile; Electronic Signatures) will be deleted from such new warrant.

15. Fractional Shares. No fractional shares shall be issued upon exercise of this Warrant. Company shall, in lieu of issuing any fractional share, pay the holder entitled to such fraction a sum in cash equal to such fraction multiplied by the then effective Stock Purchase Price.

16. Representations of Holder. With respect to this Warrant, Holder represents and warrants to Company as follows:

16.1 Experience. It is experienced in evaluating and investing in companies engaged in businesses similar to that of Company; it understands that investment in this Warrant involves substantial risks; it has made detailed inquiries concerning Company, its business and services, its officers and its personnel; the officers of Company have made available to Holder any and all written information it has requested; the officers of Company have answered to Holder's satisfaction all inquiries made by it; in making this investment it has relied upon information made available to it by Company; and it has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of investment in Company and it is able to bear the economic risk of that investment.

16.2 Investment. It is acquiring this Warrant for investment for its own account and not with a view to, or for resale in connection with, any distribution thereof. It understands that this Warrant and the shares of Common Stock issuable upon exercise of this Warrant, have not been registered under the Securities Act, nor qualified under applicable state securities laws.

16.3 Rule 144. It acknowledges that this Warrant and the Common Stock issuable upon exercise of this Warrant must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. It has been advised or is aware of the provisions of Rule 144 promulgated under the Securities Act.

16.4 Access to Data. It has had an opportunity to discuss Company's business, management and financial affairs with Company's management and has had the opportunity to inspect Company's facilities.

16.5 Accredited Investor. It is an "accredited investor" within the meaning of Regulation D promulgated under the Securities Act.

17. Additional Representations and Covenants of Company. Company hereby represents, warrants and agrees as follows:

17.1 Corporate Power. Company has all requisite corporate power and corporate authority to issue this Warrant and to carry out and perform its obligations hereunder.

17.2 Authorization. All corporate action on the part of Company, its directors and stockholders necessary for the authorization, execution, delivery and performance by Company of this Warrant has been taken. This Warrant is a valid and binding obligation of Company, enforceable in accordance with its terms.

17.3 Offering. Subject in part to the truth and accuracy of Holder's representations set forth in Section 17 hereof, the offer, issuance and sale of this Warrant is, and the Common Stock issuable upon exercise of this Warrant will be, exempt from the registration requirements of the Securities Act, and are exempt from the qualification requirements of any applicable state securities laws; and neither Company nor anyone acting on its behalf will take any action hereafter that would cause the loss of such exemptions.

17.4 Listing; Stock Issuance. Company shall use commercially reasonable efforts to secure and maintain the listing of the Common Stock or other securities issuable upon exercise of this Warrant, upon each securities exchange or over-the-counter market upon which securities of the same class or series issued by Company are listed, if any. Upon exercise of this Warrant, Company will use commercially reasonable efforts to cause the issuance of the shares of Common Stock purchased pursuant to the exercise to be issued in book-entry form in the names of Holder, its nominees or assignees, as appropriate at the time of such exercise.

17.5 Charter Documents. Company has provided Holder with true and complete copies of Company's Charter, Bylaws, as amended, or other charter document setting, forth any rights, preferences and privileges of Company's capital stock, each as amended and in effect on the date of issuance of this Warrant.

17.6 Reserved.

17.7 Rule 144 Compliance. Company shall, at all times prior to the earliest to occur of (x) the date of sale or other disposition by Holder of this Warrant or all shares of Common Stock issuable upon exercise of this Warrant, or (y) the expiration or earlier termination of this Warrant if the Warrant has not been exercised in full or in part on such date, use all commercially reasonable efforts to timely file all reports required under the Exchange Act and otherwise timely take all actions necessary to permit the Holder to sell or otherwise dispose of this Warrant and the shares of Common Stock issued on exercise hereof pursuant to Rule 144 promulgated under the Act as amended and in effect from time to time. If the Holder proposes to sell Common Stock issuable upon the exercise of this Agreement in compliance with Rule 144, then, upon Holder's written request to the Company, Company shall furnish to the Holder, within five (5) business days after receipt of such request, a written statement confirming Company's compliance with the filing and other requirements of such rule.

18. Counterparts; Facsimile; Electronic Signatures. This Warrant may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will 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. The fact that this Warrant is executed, signed, stored or delivered electronically shall not prevent the transfer by any Holder of this Warrant pursuant to Section 2 or the enforcement of the terms hereof. The electronic original of this Warrant, and any copies hereof, shall NOT be deemed to be a "certificated security" within the meaning of Section 8102(a)(4) of the California Commercial Code. Physical possession of the original of this Warrant or any paper copy thereof shall confer no special status to the bearer thereof. In no event shall an original ink-signed paper copy of this Warrant be required for any exercise of Holder's rights hereunder, nor shall this Warrant or any physical copy hereof be required to by physically surrendered at the time of any exercise hereof.

[*Remainder of this page intentionally left blank; signature page follows*]

IN WITNESS WHEREOF, Company has caused this Warrant to be duly executed by its officer, thereunto duly authorized as of the date of issuance set forth on the first page hereof.

RANI THERAPEUTICS HOLDINGS, INC.

By: _____
Name: Svai Sanford
Title: Chief Financial Officer

AGREED AND ACCEPTED:

HOLDER:

AVENUE VENTURE OPPORTUNITIES FUND, L.P.

By: Avenue Venture Opportunities Partners, LLC
Its: General Partner

By: _____
Name: Sonia Gardner
Title: Member

FORM OF SUBSCRIPTION

(To be signed only upon exercise of Warrant)

To: RANI THERAPEUTICS HOLDINGS, INC.

- The undersigned, the holder of the within Warrant, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, (1) _____ (_____) shares[1] (the "Shares") of Class A common stock, par value $0.0001 per share, of Rani Therapeutics Holdings, Inc. and herewith makes payment of _____ Dollars ($_____) therefor, and requests that the certificates for such shares be issued in the name of, and delivered to, _____, whose address is _____.

- The undersigned hereby elects to convert _____ percent (__%) of the value of the Warrant pursuant to the provisions of Section 1(b) of the Warrant.

The undersigned acknowledges that it has reviewed the representations and warranties contained in Section 17 of this Warrant and by its signature below hereby makes such representations and warranties to Company.

Dated _____

Holder: _____

By: _____

Its: _____

(Address)

_____

_____

[1] Insert here the number of shares called for on the face of the Warrant (or, in the case of a partial exercise, the portion thereof as to which the Warrant is being exercised), in either case without making any adjustment for additional Common Stock or any other stock or other securities or property or cash which, pursuant to the adjustment provisions of the Warrant, may be issuable upon exercise.

ASSIGNMENT

Pursuant to the terms of this Warrant, this Warrant (or securities issuable upon exercise hereof, or securities issuable, directly or indirectly, upon conversion of such securities, if any) may not be transferred any competitor of Company, as determined in good faith by the Board, without the prior written consent of Company.

FOR VALUE RECEIVED, the undersigned, the holder of the within Warrant, hereby sells, assigns and transfers all of the rights of the undersigned under the within Warrant, with respect to the number of shares of Common Stock covered thereby set forth herein below, unto:

Name of Assignee	Address	No. of Shares

Dated _____

Holder: _____

By: _____

Its: _____

EXHIBIT "A"

[On letterhead of Company]

Reference is hereby made to that certain Warrant, dated August 8, 2022, issued by RANI THERAPEUTICS HOLDINGS, INC., a Delaware corporation (the "Company"), to AVENUE VENTURE OPPORTUNITIES FUND, L.P., a Delaware limited partnership (the "Holder").

Notice is hereby given pursuant to Section 4.5 of the Warrant that the following adjustment(s) have been made to the Warrant: [describe adjustments, setting forth details regarding method of calculation and facts upon which calculation is based].

This certifies that, subject to the terms and conditions of the Warrant, the Holder is entitled to purchase from Company, at the Holder's option, either (i) (_____) fully paid and nonassessable shares of Company's _____ Stock at a price of _____ Dollars ($_____) per share or (ii) (_____) fully paid and nonassessable shares of Company's _____ Stock at a price of _____ Dollars ($_____) per share. The applicable Stock Purchase Price and the number of shares purchasable under the Warrant remain subject to adjustment as provided in Section 4 of the Warrant.

Executed this ___ day of _____, 20___.

RANI THERAPEUTICS HOLDINGS, INC.

By: _____

Name: _____

Title: _____

Exhibit 31.1

CERTIFICATION

I, Talat Imran, certify that:

1. I have reviewed this Form 10-Q 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: August 10, 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 Form 10-Q 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: August 10, 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 knowledge:

1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2022, 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: August 10, 2022

In Witness Whereof, the undersigned have set their hands hereto as of the 10th day of August, 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-Q 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-Q), irrespective of any general incorporation language contained in such filing.