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, 2021

OR

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

For the transition period from to

Commission File Number: 001-39941

Sana Biotechnology, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**83-1381173**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

188 East Blaine Street, Suite 400
Seattle, Washington 98102
(Address of principal executive offices)

Registrant's telephone number, including area code: (206) 701-7914

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value	SANA	Nasdaq Global Select Market

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 3, 2021, the registrant had 187,890,775 shares of common stock, $0.0001 par value per share, outstanding.

TABLE OF CONTENTS

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements that involve substantial risks and uncertainties. In some cases, you can identify these statements by forward-looking words such as “aim,” “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “potential,” “predict,” “should,” “would,” or “will,” the negative of these terms, and other comparable terminology. These forward-looking statements, which are subject to risks, include, but are not limited to, statements about:

- our expectations regarding the potential market size and size of the potential patient populations for our product candidates and any future product candidates, if approved for commercial use;
- our clinical and regulatory development plans;
- our expectations with regard to the results of our clinical studies, preclinical studies and research and development programs, including the timing and availability of data from such studies;
- the timing of commencement of future nonclinical studies, clinical trials and research and development programs;
- our ability to acquire, discover, develop and advance product candidates into, and successfully complete, clinical trials;
- our intentions and our ability to establish collaborations and/or partnerships;
- the timing or likelihood of regulatory filings and approvals for our product candidates;
- our commercialization, marketing and manufacturing expectations, including the buildout of our manufacturing facility and capabilities and the timing thereof;
- impact from future regulatory, judicial, and legislative changes or developments in the United States and foreign countries;
- our intentions with respect to the commercialization of our product candidates;
- the pricing and reimbursement of our product candidates, if approved;
- the potential effects of public health crises, such as the COVID-19 pandemic, on our preclinical and clinical programs and business;
- our expectations regarding the impact of the COVID-19 pandemic on our business;
- the implementation of our business model and strategic plans for our business and product candidates, including additional indications for which we may pursue;
- our ability to effectively manage our growth, including our ability to retain and recruit personnel, and maintain our culture;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates, including the projected terms of patent protection;
- estimates of our expenses, future revenue, capital requirements, our needs for additional financing and our ability to obtain additional capital;
- our expected use of proceeds from our initial public offering and our existing cash, cash equivalents, and marketable securities;
- the performance of our third-party suppliers and manufacturers;
- our future financial performance;
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act; and
- developments and projections relating to our competitors and our industry, including competing products.

We have based these forward-looking statements largely on our current expectations, estimates, forecasts, and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, and financial needs. In light of the significant uncertainties in these forward-looking statements, you should not rely upon forward-looking statements as predictions of future events. Although we believe that we have a reasonable basis for each forward-looking statement contained in this report, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur at all. You should refer to the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Other sections of this report may include additional factors that could harm our business and financial performance. New risk factors emerge

from time to time, and it is not possible for our management to predict all risk factors nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. In light of the significant uncertainties in these forward-looking statements, you should not rely upon forward-looking statements as predictions of future events. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Sana Biotechnology, Inc.
Condensed Consolidated Balance Sheets
(in thousands, except per share amounts)

	June 30, 2021 (unaudited)	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 675,140	$ 124,806
Marketable securities	177,696	253,458
Prepaid expenses and other current assets	7,504	6,203
Total current assets	860,340	384,467
Property and equipment, net	58,670	46,775
Operating lease right-of-use assets	60,330	63,168
Restricted cash	2,143	2,143
Long-term marketable securities	77,934	33,731
Intangible asset	59,195	59,195
Goodwill	140,627	140,627
Other non-current assets	598	190
TOTAL ASSETS	$ 1,259,837	$ 730,296
LIABILITIES, CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current liabilities:		
Accounts payable	$ 3,704	$ 2,253
Accrued compensation	15,294	16,020
Accrued expenses and other current liabilities	12,830	9,466
Operating lease liabilities	6,004	3,712
Success payment liabilities	5,000	-
Total current liabilities	42,832	31,451
Operating lease liabilities, net of current portion	66,149	68,197
Contingent consideration	140,457	121,901
Success payment liabilities, net of current portion	103,963	76,494
Other non-current liabilities	539	540
Total liabilities	353,940	298,583
Commitments and contingencies (Note 10)		
Convertible preferred stock, $0.0001 par value; zero and 537,786 shares authorized as of June 30, 2021 and December 31, 2020, respectively; zero and 134,113 shares issued and outstanding as of June 30, 2021 and December 31, 2020, respectively; aggregate liquidation preference of zero and $926,666 as of June 30, 2021 and December 31, 2020, respectively	-	852,897
Stockholders' equity (deficit):		
Preferred stock, $0.0001 par value; 50,000 and zero shares authorized as of June 30, 2021 and December 31, 2020, respectively; zero shares issued and outstanding as of June 30, 2021 and December 31, 2020, respectively	-	-
Common stock, $0.0001 par value; 750,000 and 707,000 shares authorized as of June 30, 2021 and December 31, 2020, respectively; 180,576 and 16,170 shares issued and outstanding as of June 30, 2021 and December 31, 2020, respectively	18	2
Additional paid-in capital	1,497,232	8,216
Accumulated other comprehensive income	13	30
Accumulated deficit	(591,366)	(429,432)
Total stockholders' equity (deficit)	905,897	(421,184)
TOTAL LIABILITIES, CONVERTIBLE PREFERRED STOCK, AND STOCKHOLDERS' EQUITY (DEFICIT)	$ 1,259,837	$ 730,296

See accompanying notes.

Sana Biotechnology, Inc.
Condensed Consolidated Statements of Operations
(unaudited)
(in thousands, except per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Operating expenses (gains):				
Research and development	$ 44,996	$ 29,991	$ 86,876	$ 56,397
Research and development related success payments and contingent consideration	(76,025)	51,906	51,025	52,820
General and administrative	12,477	6,009	24,298	11,964
Total operating expenses (gains)	(18,552)	87,906	162,199	121,181
Gain (loss) from operations	18,552	(87,906)	(162,199)	(121,181)
Interest income, net	130	79	251	474
Other income, net	1	19	14	24
Net income (loss)	$ 18,683	$ (87,808)	$ (161,934)	$ (120,683)
Net income (loss) per share - basic	$ 0.10	$ (7.18)	$ (1.08)	$ (10.47)
Weighted-average number of common shares - basic	179,899	12,232	149,683	11,526
Net income (loss) per share - diluted	$ 0.09	$ (7.18)	$ (1.08)	$ (10.47)
Weighted-average number of common shares - diluted	190,508	12,232	149,683	11,526

See accompanying notes.

Sana Biotechnology, Inc.
Condensed Consolidated Statements of Comprehensive Income (Loss)
(unaudited)
(in thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
Net income (loss)	$ 18,683	$ (87,808)	$ (161,934)	$ (120,683)
Other comprehensive income (loss), net of tax:				
Unrealized gain (loss) on marketable securities, net	(43)	7	(17)	(3)
Total comprehensive income (loss)	$ 18,640	$ (87,801)	$ (161,951)	$ (120,686)

See accompanying notes.

Sana Biotechnology, Inc.
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(unaudited)
(in thousands)

	Convertible Preferred Stock		Common Stock		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Capital	Income	Deficit	(Deficit)
Balance as of December 31, 2020	134,113	$ 852,897	16,170	$ 2	$ 8,216	$ 30	$ (429,432)	$ (421,184)
Conversion of convertible preferred stock into common stock upon initial public offering	(134,113)	(852,897)	134,113	13	852,884	-	-	852,897
Issuance of common stock in initial public offering, net of $49,220 in offering costs	-	-	27,025	3	626,402	-	-	626,405
Vesting of restricted stock	-	-	2,851	-	-	-	-	
Exercise of stock options	-	-	417	-	631	-	-	631
Stock-based compensation expense	-	-	-	-	9,099	-	-	9,099
Unrealized loss on marketable securities, net	-	-	-	-	-	(17)	-	(17)
Net loss	-	-	-	-	-	-	(161,934)	(161,934)
Balance as of June 30, 2021	-	$ -	180,576	$ 18	$ 1,497,232	$ 13	$ (591,366)	$ 905,897

	Convertible Preferred Stock		Common Stock		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Income	Deficit	Deficit
Balance as of December 31, 2019	106,890	$ 417,359	10,003	$ 1	$ 1,558	$ 26	$ (144,127)	$ (142,542)
Issuance of Series B convertible preferred stock, net of issuance costs of $28	27,223	435,543		-	-	-	-	-
Issuance of common stock in connection with license agreement	-	-	63	-	388	-	-	388
Vesting of restricted stock	-	-	2,809	-	-	-	-	-
Exercise of stock options	-	-	26	-	37	-	-	37
Stock-based compensation expense	-	-	-	-	1,871	-	-	1,871
Unrealized loss on marketable securities, net	-	-	-	-	-	(3)	-	(3)
Net loss	-	-	-	-	-	-	(120,683)	(120,683)
Balance as of June 30, 2020	134,113	$ 852,902	12,901	$ 1	$ 3,854	$ 23	$ (264,810)	$ (260,932)

See accompanying notes.

Sana Biotechnology, Inc.
Condensed Consolidated Statements of Cash Flows
(unaudited)
(in thousands)

	Six Months Ended June 30,	
	2021	**2020**
OPERATING ACTIVITIES:		
Net loss	$ (161,934)	$ (120,683)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	4,853	2,646
Stock-based compensation expense	9,099	1,871
Change in the estimated fair value of contingent consideration	18,556	14,339
Change in the estimated fair value of success payment liabilities	32,469	38,481
Non-cash expense for operating lease right-of-use assets	2,838	1,790
Other non-cash items, net	(2,022)	493
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	(1,719)	423
Operating lease right-of-use assets and liabilities	3,386	91
Accounts payable	(373)	1,864
Accrued expenses and other liabilities	4,378	(4,228)
Net cash used in operating activities	(90,469)	(62,913)
INVESTING ACTIVITIES:		
Purchases of marketable securities	(165,551)	(43,121)
Proceeds from sales and maturities of marketable securities	195,914	54,120
Purchases of property and equipment	(16,596)	(8,290)
Net cash provided by investing activities	13,767	2,709
FINANCING ACTIVITIES:		
Proceeds from initial public offering of common stock, net of offering costs	626,405	-
Proceeds from issuance of convertible preferred stock, net of issuance costs	-	435,543
Proceeds from exercise of stock options	631	37
Net cash provided by financing activities	627,036	435,580
Net increase in cash, cash equivalents, and restricted cash	550,334	375,376
Cash, cash equivalents, and restricted cash at beginning of period	126,949	81,807
Cash, cash equivalents, and restricted cash at end of period	$ 677,283	$ 457,183
SUPPLEMENTAL CASH FLOW DISCLOSURES:		
Tenant improvement allowance included in operating lease liabilities	$ 4,935	$ 3,745
Purchases of property and equipment included in accounts payable and accrued liabilities	$ 3,414	$ 2,289
Cash received from lessor for tenant improvement allowance	$ 3,386	$ 91
Right-of-use assets obtained in exchange for operating lease liabilities	$ -	$ 19,971

See accompanying notes.

1. Organization

Sana Biotechnology, Inc. (the Company or Sana) was incorporated in Delaware on July 13, 2018 (inception) as FD Therapeutics, Inc., and changed its name to Sana Biotechnology, Inc. on September 17, 2018. Sana is a biotechnology company focusing on utilizing engineered cells as medicines. The Company's operations to date have included identifying and developing potential product candidates, executing preclinical studies, establishing manufacturing capabilities, acquiring technology, organizing and staffing the Company, business planning, establishing the Company's intellectual property portfolio, raising capital, and providing general and administrative support for these operations.

Reverse stock split

In January 2021, the Company's board of directors approved an amendment to the Company's amended and restated certificate of incorporation to effect a 1-for-4 reverse stock split of shares of the Company's common and convertible preferred stock, which was effected on January 27, 2021. The par value per share and authorized shares of common and convertible preferred stock were not adjusted as a result of the reverse stock split. All share and per share information included in the accompanying condensed consolidated financial statements have been adjusted to reflect the reverse stock split.

Initial public offering

In February 2021, the Company successfully completed its initial public offering (IPO) of its common stock. In connection with its IPO, the Company issued 27.0 million shares of its common stock, including 3.5 million shares pursuant to the full exercise of the underwriters' option to purchase additional shares, at a price of $25.00 per share, and received $626.4 million in net proceeds, after deducting underwriting discounts and commissions of $45.2 million and offering expenses of $4.0 million. At the closing of the IPO, 134.1 million shares of convertible preferred stock then outstanding were automatically converted into shares of common stock. The related carrying value of the converted preferred stock of $852.9 million was reclassified to common stock and additional paid in-capital.

Need for additional capital

The Company is subject to a number of risks and uncertainties similar to other biotechnology companies in the development stage, including, but not limited to, the need to obtain adequate additional funding, possible failure of preclinical testing or clinical trials, the need to obtain marketing approval for its product candidates, building out internal and external manufacturing capabilities, competitors developing new technological innovations, the need to successfully commercialize and gain market acceptance of the Company's products, the need to protect the Company's intellectual property and proprietary technology, and the need to attract and retain key scientific and management personnel. If the Company does not successfully commercialize or partner any of its product candidates, it will be unable to generate product revenue or achieve profitability. Until such time as the Company can generate significant revenue from product sales, if ever, it expects to finance its operations from the sale of additional equity or debt financings or other capital obtained in connection with strategic collaborations or licensing or other arrangements. In the event that additional financing is required, the Company may not be able to raise it on terms acceptable to it or at all.

The Company has incurred operating losses each year since inception and expects such losses to continue for the foreseeable future. As of June 30, 2021, the Company had cash, cash equivalents, and marketable securities of $930.8 million, and an accumulated deficit of $591.4 million, which includes non-cash charges of $106.5 million and $89.2 million related to the revaluation of the success payment liabilities and contingent consideration, respectively.

2. Summary of significant accounting policies

The accompanying condensed consolidated financial statements and related financial information should be read in conjunction with the audited consolidated financial statements and the related notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 24, 2021 (2020 Form 10-K). The significant accounting policies used in the preparation of these condensed consolidated financial statements as of June 30, 2021 and for the three and six months ended June 30, 2021 and 2020 are consistent with those discussed in Note 2 in the 2020 Form 10-K.

Basis of presentation

The accompanying condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. The Company's condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (GAAP). Certain prior period amounts have been reclassified to conform to current period presentation.

Use of estimates

The preparation of the financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. The Company evaluates its estimates and assumptions on an ongoing basis using historical experience and other factors and adjusts those estimates and assumptions when facts and circumstances dictate. Actual results could materially differ from those estimates. The most significant estimates in the Company's condensed consolidated financial statements relate to success payment liabilities, contingent consideration, business combinations, accrued expenses, and the valuation of stock options.

Recent accounting pronouncements

Recently adopted

Accounting Standards Updates (ASU) No. 2016-13, Financial Instruments—Credit Losses (Topic 362): Measurement of Credit Losses on Financial Statements, ASU No. 2019-05 Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief, ASU No. 2019-11, Codification Improvements to Topic 326, Financial Instruments—Credit Losses

In June 2016, the Financial Accounting Standards Board (FASB) issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 362): Measurement of Credit Losses on Financial Statements (ASU 2016-13). The new standard requires that expected credit losses relating to financial assets measured on an amortized cost basis and available-for-sale debt securities be recorded through an allowance for credit losses. It also limits the amount of credit losses to be recognized for available-for-sale debt securities to the amount by which the carrying value exceeds fair value and also requires the reversal of previously recognized credit losses if fair value increases. The targeted transition relief standard allows companies an option to irrevocably elect the fair value option of ASC 825-10, Financial Instruments-Overall, applied on an instrument-by-instrument basis for eligible instruments. The Company adopted ASU 2016-13 effective January 1, 2021. The adoption of the guidance did not have a material impact on the condensed consolidated financial statements and related disclosures, and there was no allowance for losses on available-for-sale debt securities attributable to credit risk for the three and six months ended June 30, 2021.

Not yet adopted

ASU No. 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued ASU 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment (ASU 2017-04). To address concerns over the cost and complexity of the two-step goodwill impairment test, the amendments in this ASU remove the second step of the test. An entity will instead apply a one-step quantitative test and record the amount of goodwill impairment as the excess of a reporting unit's carrying amount over its fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The new guidance does not amend the optional qualitative assessment of goodwill impairment. The new standard will be effective beginning January 1, 2023. The adoption of ASU 2017-04 is not expected to have a material impact on the Company's consolidated financial statements.

3. Acquisitions

Oscine Corp.

In September 2020, the Company entered into a stock purchase agreement to acquire 100% of the outstanding equity in Oscine Corp. (Oscine) for a purchase price of $8.5 million, of which $7.6 million was an upfront cash payment, and $0.9 million was set aside to satisfy certain general representations and warranties as set forth in the stock purchase agreement (Oscine Holdback Amount).

The primary asset acquired in the acquisition was in-process research and development (IPR&D) technology related to Oscine's glial progenitor *ex vivo* cell engineering programs focused on brain disorders. The Company evaluated the acquisition and determined the screen test, as permitted under ASC 805, *Business Combinations*, was met as the $8.5 million purchase price represented consideration for a single identifiable asset related to the technology. The Company concluded the asset acquired did not meet the

definition of a business, and the asset had no alternative future use. The transaction was accounted for as an asset acquisition, and the purchase price of $8.5 million was recorded in research and development expense for the three months ended September 30, 2020.

The Oscine Holdback Amount will be held until December 2021, which is 15 months following the consummation of the acquisition, at which time the remainder of the balance, after payment of any claims, will be released. In addition, the Company is required to make up to an aggregate of $225.8 million in future milestone payments upon the achievement of certain development and commercial milestones.

Cobalt Biomedicine, Inc.

In February 2019, the Company acquired 100% of the outstanding equity in Cobalt Biomedicine, Inc. (Cobalt), a privately-held early-stage biotechnology company developing a platform technology using its fusogen technology to specifically and consistently deliver various biological payloads to cells.

Pursuant to the terms and conditions in the Cobalt acquisition agreement, the Company has an obligation to pay contingent consideration (Cobalt Contingent Consideration) of up to an aggregate of $500.0 million to certain former Cobalt stockholders upon the achievement of certain pre-specified development milestones. Additionally, the Company is obligated to pay a success payment (Cobalt Success Payment) of up to $500.0 million, payable in cash or stock, at the Company's discretion. The Cobalt Success Payment is payable if, at pre-determined valuation measurement dates, including the Company's IPO and periodically thereafter, the Company's market capitalization equals or exceeds $8.1 billion, and the Company is advancing a program based on the fusogen technology in a clinical trial pursuant to an investigational new drug application (IND), or has filed for, or received approval for, a biologics license application (BLA) or new drug application (NDA). The Cobalt Success Payment can be achieved over a maximum of 20 years from the date of the Cobalt acquisition, but this period could be shorter upon the occurrence of certain events. As of June 30, 2021, a Cobalt Success Payment had not been triggered.

In addition to an IPO, a valuation measurement date would be triggered upon a change of control of the Company if at least one Company product based on the fusogen technology is the subject of an active research program at the time of such change of control. If there is a change of control and the Company's market capitalization is below $8.1 billion as of the date of the change of control, the amount of the potential Cobalt Success Payment will decrease, and the amount of potential Cobalt Contingent Consideration will increase.

The following table sets forth various thresholds for the Company's market capitalizations as of the date of a change of control and the resulting potential Cobalt Success Payment and additional potential Cobalt Contingent Consideration:

Sana market capitalization upon a change of control and resulting impact to Cobalt Success Payment and additional potential Cobalt Contingent Consideration	Cobalt Success Payment	Additional potential Cobalt Contingent Consideration
	(in millions)	
Equal to or exceeds $8.1 billion	$ 500	$ -
Equal to or exceeds $7.4 billion, but less than $8.1 billion	150	350
Equal to or exceeds $6.8 billion, but less than $7.4 billion	100	400
Less than $6.8 billion	-	500

The Cobalt Success Payment and Cobalt Contingent Consideration liabilities are carried at fair value with changes in fair value recognized on the condensed consolidated statements of operations in research and development related success payments and contingent consideration. As of June 30, 2021 and December 31, 2020, the estimated fair value of the Cobalt Success Payment liability was $89.8 million and $64.7 million, respectively, and the estimated fair value of the Cobalt Contingent Consideration was $140.5 million and $121.9 million, respectively. For the three months ended June 30, 2021 and 2020, the Company recognized a gain of $66.6 million and an expense of $33.5 million in connection with the change in fair value of the Cobalt Success Payment, respectively, and expenses of $7.2 million and $14.0 million in connection with the change in the estimated fair value of the Cobalt Contingent Consideration, respectively. For the six months ended June 30, 2021 and 2020, the Company recognized expenses of $25.1 million and $33.9 million, respectively, in connection with the change in fair value of the Cobalt Success Payment, and $18.6 million and $14.3 million, respectively, in connection with the change in the estimated fair value of the Cobalt Contingent Consideration.

4. Intangible asset and goodwill

As of June 30, 2021, the Company had an intangible asset of $59.2 million, which consists of IPR&D acquired in 2019 from the Cobalt acquisition. The IPR&D is classified as indefinite-lived until the successful completion of the associated research and development technology, at which point it becomes a finite-lived asset that will be amortized over its estimated useful life. As of June 30, 2021, there was no amortization of the intangible asset. As of June 30, 2021, the Company had goodwill of $140.6 million, which represents the excess of the purchase price over the estimated fair value of the net assets acquired from the Cobalt acquisition in 2019. There were no impairments of the intangible asset or goodwill since the acquisition.

5. License and collaboration agreements

President and Fellows of Harvard College

In March 2019, the Company entered into an exclusive license agreement with the President and Fellows of Harvard College (Harvard) to access certain intellectual property for the development of hypo-immune cells.

Under the terms of the agreement, the Company may be required to make success payments to Harvard up to an aggregate of $175.0 million, payable in cash, based on increases in the fair value of the Company's common stock (Harvard Success Payments). The potential Harvard Success Payments are based on multiples of increased value ranging from 5x to 40x, based on a comparison of the fair market value of the Company's common stock relative to the original issuance price of $4.00 per share at pre-determined valuation measurement dates which include: the one year anniversary of the IPO and periodically thereafter, the date of the consummation of a merger, an asset sale, or the sale of the majority of the shares held by the Company's Series A convertible preferred stockholders, and the last day of the term of the success payments. The first Harvard valuation measurement date is expected to occur in February 2022, one year from the IPO. The aggregate amount of the Harvard Success Payments does not exceed an aggregate of $175.0 million, which would only occur upon a 40x increase in value of the Company's common stock. If a higher success payment tier is first met at the same time a lower tier is first met, both tiers will be owed. Any previous success payments made to Harvard would be credited against the success payment owed as of any valuation measurement date so that Harvard does not receive multiple success payments in connection with the same threshold. The Harvard Success Payments can be achieved over a maximum of 12 years from the effective date of the agreement. The following table summarizes the potential success payments and common stock price required for payment:

Multiple of Equity Value at Issuance	5x	10x	20x	30x	40x
Per share common stock price required for payment	$ 20.00	$ 40.00	$ 80.00	$ 120.00	$ 160.00
Success payment(s) (in millions)	$ 5.0	$ 15.0	$ 30.0	$ 50.0	$ 75.0

The Harvard Success Payment liabilities are carried at fair value with changes in fair value recognized on the condensed consolidated statements of operations in research and development related success payments and contingent consideration. As of June 30, 2021 and December 31, 2020, the estimated fair value of the Harvard Success Payment liability was $19.1 million and $11.8 million, respectively. As of June 30, 2021 and December 31, 2020, $5.0 million and $0, respectively, were recorded in short-term liabilities, and $14.1 million and $11.8 million, respectively, were recorded in long-term liabilities in the condensed consolidated balance sheet. For the three months ended June 30, 2021 and 2020, the Company recognized a gain of $16.6 million and an expense of $4.4 million, respectively, in connection with the change in the estimated fair value of the Harvard Success Payment liability. For the six months ended June 30, 2021 and 2020, the Company recognized expenses of $7.3 million and $4.6 million, respectively, in connection with the change in the estimated fair value of the Harvard Success Payment liability.

In connection with this agreement, the Company also paid Harvard a license payment of $6.0 million in June 2020 that was contingent upon the closing of the Company's Series B convertible preferred stock financing.

6. Restricted cash

As of June 30, 2021 and December 31, 2020, the Company maintained standby letters of credit of $2.1 million, which are collateralized with a bank account at a financial institution in accordance with the applicable lease agreements.

7. Fair value measurements

The following tables summarize the Company's financial assets and liabilities measured at fair value on a recurring basis based on the three-tier fair value hierarchy:

		June 30, 2021			
	Valuation Hierarchy	Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value
		(in thousands)			
Financial assets:					
Cash equivalents:					
Money market funds	Level 1	$ 656,524	$ -	$ -	$ 656,524
Corporate debt securities	Level 2	180	-	-	180
Total cash equivalents		656,704	-	-	656,704
Short-term marketable securities:					
U.S. government and agency securities	Level 2	124,906	21	-	124,927
Corporate debt securities	Level 2	52,776	4	(11)	52,769
Total short-term marketable securities		177,682	25	(11)	177,696
Long-term marketable securities:					
U.S. government and agency securities	Level 2	74,464	7	(4)	74,467
Corporate debt securities	Level 2	3,471	-	(4)	3,467
Total long-term marketable securities		77,935	7	(8)	77,934
Total financial assets		$ 912,321	$ 32	$ (19)	$ 912,334
Financial liabilities:					
Short-term financial liabilities:					
Success payment liabilities	Level 3	$ 5,000	$ -	$ -	$ 5,000
Long-term financial liabilities:					
Contingent consideration	Level 3	140,457	-	-	140,457
Success payment liabilities	Level 3	103,963	-	-	103,963
Total financial liabilities		$ 249,420	$ -	$ -	$ 249,420

	Valuation Hierarchy	December 31, 2020 Amortized Cost	Gross Unrealized Holding Gains	Gross Unrealized Holding Losses	Estimated Fair Value
			(in thousands)		
Financial assets:					
Cash equivalents:					
Money market funds	Level 1	$ 48,359	$ -	$ -	$ 48,359
U.S. government and agency securities	Level 2	40,727	1	(1)	40,727
Corporate debt securities	Level 2	1,138	-	-	1,138
Total cash equivalents		90,224	1	(1)	90,224
Short-term marketable securities:					
U.S. government and agency securities	Level 2	244,637	30	(5)	244,662
Corporate debt securities	Level 2	8,798	-	(2)	8,796
Total short-term marketable securities		253,435	30	(7)	253,458
Long-term marketable securities:					
U.S. government and agency securities	Level 2	33,724	7	-	33,731
Total long-term marketable securities		33,724	7	-	33,731
Total financial assets		$ 377,383	$ 38	$ (8)	$ 377,413
Financial liabilities:					
Long-term financial liabilities:					
Contingent consideration	Level 3	$ 121,901	$ -	$ -	$ 121,901
Success payment liabilities	Level 3	76,494	-	-	76,494
Total financial liabilities		$ 198,395	$ -	$ -	$ 198,395

The Company measures the fair value of money market funds based on quoted prices in active markets for identical assets or liabilities. The Level 2 marketable securities include U.S. government, agency securities, and corporate debt securities and are valued based on either recent trades of securities in inactive markets or quoted market prices of similar instruments and other significant inputs derived from or corroborated by observable market data.

Securities in an unrealized loss position have been in an unrealized loss position for less than one year. The Company determined that there was no material change in the credit risk of the above investments during the six months ended June 30, 2021. As such, an allowance for credit losses would not be recognized. As of June 30, 2021, the Company does not intend to sell such securities, and it is not more-likely-than-not that the Company will be required to sell the securities prior to the recovery of the amortized cost basis.

As of June 30, 2021, all marketable securities had an effective maturity date of two years or less. Investments in securities with maturities of less than one year, or those for which management intends to use to fund current operations, are included in current assets and classified as available-for-sale. As of June 30, 2021, the balance in accumulated other comprehensive income (loss) included the net unrealized gains (losses) related to the Company's available-for-sale debt securities. There were no material realized gains or losses recognized on the sale or maturity of available-for-sale securities during the three and six months ended June 30, 2021 or 2020.

The following table sets forth a summary of the changes in the fair value of the Company's Level 3 financial liabilities:

	Contingent Consideration	Cobalt Success Payment Liability	Harvard Success Payment Liability
		(in thousands)	
Balance as of December 31, 2020	$ 121,901	$ 64,694	$ 11,800
Changes in fair value - expense (gain)	11,393	91,757	23,900
Balance as of March 31, 2021	133,294	156,451	35,700
Changes in fair value - expense (gain)	7,163	(66,632)	(16,556)
Balance as of June 30, 2021	$ 140,457	$ 89,819	$ 19,144

Contingent consideration

The Company utilizes significant estimates and assumptions it believes would be made by a market participant in determining the estimated fair value of the Cobalt Contingent Consideration at each balance sheet date. The fair value of the Cobalt Contingent Consideration was determined by calculating the probability-weighted estimated value of the pre-specified development milestone payments based on the assessment of the likelihood and estimated timing that the milestones would be achieved and the applicable discount rates. The discount rate captures the credit risk associated with the payment of the contingent consideration when earned and due. The Company assesses these estimates on an on-going basis as additional data impacting the assumptions are obtained.

The fair value of the Cobalt Contingent Consideration was calculated using the following unobservable inputs:

	June 30, 2021		December 31, 2020	
Unobservable Input	**Range**	**Weighted-Average**	**Range**	**Weighted-Average**
Discount rates	7.2% - 8.6%	7.7%	10.5% - 10.8%	10.6%
Probability of milestone achievement	5.0% - 65.0%	27.9%	2.5% - 65.0%	27.6%

The weighted-average unobservable inputs were calculated based on the relative value of the pre-specified development milestones. The estimated fair value of the Cobalt Contingent Consideration may change significantly as development progresses and additional data are obtained, impacting the assumptions regarding probabilities of successful achievement of the milestones used to estimate the fair value of the liability and the timing in which they are expected to be achieved. In evaluating the fair value assumptions, judgment is required to interpret the market data used to develop the estimates. The estimates of fair value may not be indicative of the amounts that could be realized in a current market exchange. Accordingly, the use of different market assumptions, inputs and/or different valuation techniques could result in materially different fair value estimates.

Success payments

The Company utilizes significant estimates and assumptions in determining the estimated fair value of the success payment liabilities and the associated expense or gain at each balance sheet date. The estimated fair value of the Cobalt and Harvard success payment liabilities was determined using a Monte Carlo simulation methodology, which models the estimated fair value of the liability based on several key assumptions, including: the expected volatility, remaining term, risk-free interest rate, estimated number and timing of valuation measurement dates on the basis of which payment may be triggered, and for the Cobalt Success Payment, the Company's market capitalization, and for the Harvard Success Payments, the per share fair value of the Company's common stock.

The fair values of the Cobalt and Harvard success payment liabilities were calculated using the following unobservable inputs:

	June 30, 2021		December 31, 2020	
Unobservable Input	**Cobalt**	**Harvard**	**Cobalt**	**Harvard**
Expected stock price volatility	70.0%	70.0%	70.0%	70.0%
Expected term (years)	17.6	9.7	18.1	10.2

8. Property and equipment, net

Property and equipment, net consists of the following:

	June 30, 2021	December 31, 2020
	(in thousands)	
Laboratory equipment	$ 37,363	$ 26,958
Leasehold improvements	26,109	15,598
Construction in progress	6,887	11,180
Computer equipment, software, and other	901	776
Total property and equipment, at cost	71,260	54,512
Less: Accumulated depreciation	(12,590)	(7,737)
Property and equipment, net	$ 58,670	$ 46,775

Depreciation expense was $2.6 million and $1.4 million for the three months ended June 30, 2021 and 2020, respectively, and $4.9 million and $2.6 million for the six months ended June 30, 2021 and 2020, respectively.

9. Accrued liabilities

Accrued compensation and accrued expenses and other current liabilities consist of the following:

	June 30, 2021	December 31, 2020
	(in thousands)	
Accrued compensation:		
Accrued bonuses	$ 6,364	$ 11,582
Accrued paid time off	4,924	2,441
Other accrued compensation	4,006	1,997
Total accrued compensation	$ 15,294	$ 16,020
Accrued expenses and other current liabilities:		
Accrued research and development	$ 3,734	$ 1,197
Accrued professional fees	2,875	1,717
Accrued property and equipment	2,514	2,892
Other accrued current liabilities	3,707	3,660
Total accrued expenses and other current liabilities	$ 12,830	$ 9,466

10. Commitments and contingencies

Lease commitments

The Company's lease portfolio is primarily comprised of operating leases for office, laboratory, and non-good manufacturing practices (GMP) pilot plant manufacturing space located in Seattle, WA, Cambridge, MA, and South San Francisco, CA. Operating leases have contractual periods expiring between April 2024 and April 2030. These leases contain various rent abatement periods, after which they require monthly lease payments that may be subject to annual increases throughout the lease term. The Seattle and South San Francisco lease agreements each provide the Company with the option to renew for an additional period of five years. The Company is not reasonably certain it will renew these leases, and therefore the renewal options are not considered in the remaining lease term for these leases. Certain leases provide the Company the right to make tenant improvements, including the addition of laboratory space, and include a lease incentive allowance.

The following table contains additional information related to our operating leases:

Location	Approximate Square Footage	Commencement Dates	Expiration Dates
Seattle, WA	48,086	March 2019 to September 2020	December 2026 to April 2028
Cambridge, MA	56,859	March 2019 to May 2020	November 2025 to February 2028
South San Francisco, CA	66,075	December 2019 to October 2020	April 2024 to April 2030

Throughout the term of the lease agreements, the Company is responsible for paying certain operating costs in addition to rent, such as common area maintenance, taxes, utilities, and insurance. These additional charges are considered variable lease costs and are recognized in the period in which the costs are incurred.

The following table summarizes the Company's lease costs:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Operating lease cost	$ 2,898	$ 2,676	$ 5,796	$ 5,120
Short-term lease cost	-	474	512	944
Variable lease cost	1,642	848	2,729	1,469
Total lease cost	$ 4,540	$ 3,998	$ 9,037	$ 7,533

As of June 30, 2021, the weighted-average remaining lease term was 7.1 years and the weighted-average incremental borrowing rate was 10.73%.

The following table reconciles the Company's undiscounted operating lease cash flows by fiscal year, to the present value of the operating lease liabilities as of June 30, 2021 (in thousands):

2021 (remaining 6 months)	$	6,536
2022		15,535
2023		15,989
2024		15,663
2025		15,621
2026 and thereafter		42,616
Total undiscounted lease payments		111,960
Less: imputed interest		(34,872)
Less: tenant improvement allowances		(4,935)
Present value of operating lease liabilities	$	72,153

11. Convertible preferred stock

In 2018, the Company issued 11.5 million shares of its Series A-1 convertible preferred stock at $4.00 per share, for gross proceeds of $45.9 million. In 2019, the Company issued 56.0 million shares of its Series A-2 convertible preferred stock at $4.00 per share, for gross proceeds of $224.0 million. In 2020, the Company issued 27.2 million shares of Series B convertible preferred stock at $16.00 per share, for gross proceeds of $435.6 million. Immediately prior to the closing of the Company's IPO in February 2021, all outstanding shares of convertible preferred stock converted into 134.1 million shares of common stock. There were no shares of convertible preferred stock outstanding as of June 30, 2021.

12. Common stock

The Company amended and restated its certificate of incorporation, effective February 2021, increasing the number of shares of all classes of stock the Company has authority to issue to 800.0 million shares, of which 750.0 million shares are common stock, and 50.0 million shares are preferred stock.

As of June 30, 2021, there were 180.6 million shares of the Company's common stock outstanding, excluding 7.2 million shares of restricted common stock outstanding that are subject to vesting requirements.

13. Stock-based compensation

2021 Incentive Award Plan

In February 2021, the Company adopted the 2021 Incentive Award Plan, which became effective on the completion of the Company's IPO. The 2021 Incentive Award Plan provides for a variety of stock-based compensation awards, including stock options, restricted stock awards (RSAs), and restricted stock units (RSUs). In conjunction with adopting the 2021 Incentive Award Plan, the Company discontinued the 2018 Equity Incentive Plan with respect to new equity awards. The number of shares of the Company's common stock reserved for issuance is subject to automatically increase by 5% of all shares outstanding at the beginning of each calendar year.

2021 Employee Stock Purchase Plan

In February 2021, the Company adopted the 2021 Employee Stock Purchase Plan (2021 ESPP), which became effective on the completion of the Company's IPO. The 2021 ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to 15% of their earnings, subject to plan limitations. Unless otherwise determined by the Company's board of directors, employees are able to purchase shares at 85% of the lower of the fair market value of the Company's common stock on the first date of an offering or on the purchase date. The number of shares of the Company's common stock reserved for issuance under the 2021 ESPP is subject to automatically increase by 1% of all shares outstanding at the beginning of each calendar year. The Company may specify offerings with durations of not more than 27 months and may specify shorter purchase periods within each offering.

2018 Equity Incentive Plan

In October 2018, the Company adopted the 2018 Equity Incentive Plan (2018 Plan) under which it may grant incentive stock options, non-statutory stock options, RSAs, RSUs, and other stock-based awards to any person, including officers, directors, and consultants. Terms of stock agreements, including vesting requirements, are determined by the Company's board of directors, or by a committee appointed by the board of directors, subject to the provisions of the 2018 Plan. The 2018 Plan terminated as of the adoption of the 2021 Incentive Award Plan.

Stock-based compensation expense

Stock-based compensation expense is recognized in the condensed consolidated statements of operations as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Research and development	$ 3,148	$ 927	$ 5,816	$ 1,575
General and administrative	1,793	189	3,283	296
Total stock-based compensation expense	$ 4,941	$ 1,116	$ 9,099	$ 1,871

Unrecognized stock-based compensation costs related to unvested awards and the weighted-average period over which the costs are expected to be recognized as of June 30, 2021 are as follows:

	Stock Options	RSAs	RSUs
Unrecognized stock-based compensation expense (in thousands)	$ 59,901	$ 2,520	$ 258
Weighted-average period costs expected to be recognized (years)	3.1	1.3	1.7

Stock options

A summary of the Company's stock option activity is as follows:

	Stock Options (in thousands)	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	15,677	$ 4.52		
Granted	1,558	24.43		
Exercised	(417)	1.58		
Forfeited/Cancelled	(376)	3.67		
Outstanding as of June 30, 2021	16,442	$ 6.42	9.0	$ 216,379
Exercisable as of June 30, 2021	2,698	$ 1.52	8.3	$ 48,928

The fair value of stock options granted to employees, directors, and consultants was estimated on the date of grant using the Black-Scholes option pricing model using the following assumptions:

	Six Months Ended June 30,	
Assumptions	2021	2020
Risk free interest rate	0.46%-1.14%	0.41%-1.51%
Expected volatility	70.00%	70.00%
Expected term (years)	5.50 - 6.25	6.25-6.75
Expected dividend	0.00%	0.00%

The following table summarizes additional information related to stock option activity:

	Six Months Ended June 30,	
	2021	2020
Weighted average grant date fair value per share for options granted	$ 15.30	$ 1.21
Aggregate intrinsic value of stock options exercised (in thousands)	$ 9,464	$ 23

Restricted stock awards

A summary of the Company's RSA activity is as follows:

	RSAs (in thousands)	Weighted-Average Grant Date Fair Value per Share
Unvested shares as of December 31, 2020	10,079	$ 0.33
Vested	(2,851)	0.25
Forfeited	(15)	0.73
Unvested shares as of June 30, 2021	7,213	$ 0.36

The fair value of vested RSAs for the three months ended June 30, 2021 and 2020 was $0.4 million and $0.2 million, respectively, and $0.7 million and $0.4 million for the six months ended June 30, 2021 and 2020, respectively.

14. Income taxes

The Company's income tax provision for interim periods is determined using an estimate of the Company's annual effective tax rate, adjusted for discrete items arising in the quarter. The Company's effective tax rate differs from the U.S. statutory tax rate primarily due to a valuation allowance on the deferred tax assets. Deferred tax assets and deferred tax liabilities are recognized based on temporary differences between the financial reporting and tax basis of assets and liabilities using statutory rates. A valuation allowance is recorded against deferred tax assets if it is more likely than not that some or all of the deferred tax assets will not be realized. Due to the uncertainty surrounding the realization of the favorable tax attributes in future tax returns, the Company has recorded a full valuation allowance against the Company's otherwise recognizable net deferred tax assets.

15. Net income (loss) per share

Basic and diluted earnings per share are computed using the two-class method, which is an allocation of earnings between the holders of common stock and a company's participating security holders. The Company's unvested restricted stock awards are considered participating securities because they are legally issued at the grant date and holders have a non-forfeitable right to receive dividends.

Basic EPS is generally computed by dividing net income attributable to common stockholders by the weighted-average shares of common stock outstanding during the period. Diluted earnings per share is generally computed by dividing net income attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, increased to include the number of shares of common stock that would have been outstanding had potential dilutive shares of common stock been issued. The dilutive effect of restricted stock units and stock options are reflected in diluted net income per share by applying the treasury stock method.

The following table summarizes the calculation of basic and diluted net income (loss) per share of common stock:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands, except per share amounts)			
Basic earnings per common share:				
Net income (loss)	$ 18,683	$ (87,808)	$ (161,934)	$ (120,683)
Less: net income allocated to participating securities(1)	(749)	-	-	-
Net income attributable to common stockholders	$ 17,934	$ (87,808)	$ (161,934)	$ (120,683)
Weighted-average number of common shares - basic	179,899	12,232	149,683	11,526
Basic earnings per common share	$ 0.10	$ (7.18)	$ (1.08)	$ (10.47)
Diluted earnings per common share:				
Net income (loss)	$ 18,683	$ (87,808)	$ (161,934)	$ (120,683)
Less: net income allocated to participating securities(1)	(749)	-	-	-
Net income attributable to common stockholders	$ 17,934	$ (87,808)	$ (161,934)	$ (120,683)
Weighted-average number of common shares - basic	179,899	12,232	149,683	11,526
Effect of dilutive securities:				
Stock options and restricted stock units	10,609	-	-	-
Weighted-average number of common shares - diluted	190,508	12,232	149,683	11,526
Diluted earnings per common share	$ 0.09	$ (7.18)	$ (1.08)	$ (10.47)

(1) Restricted stock awards granted to employees by the Company are considered participating securities.

The following securities were excluded from the computation of net income (loss) per diluted share of common stock for periods presented as their effect would have been anti-dilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2020	2021	2020
	(in thousands)			
Convertible preferred stock	-	134,113	-	134,113
Unvested restricted common stock	-	13,743	7,213	13,743
Options to purchase common stock	1,553	8,154	16,442	8,154
Unvested RSUs	-	328	328	328
Total	1,553	156,338	23,983	156,338

16. Employee benefit plan

In January 2019, the Company adopted a 401(k) retirement and savings plan (the 401(k) Plan) covering all employees. The 401(k) Plan allows employees to make pre- and post-tax contributions up to the maximum allowable amount set by the IRS. The Company has not made a matching contribution since plan inception.

17. Subsequent events

In July 2021, the Company entered into an agreement to lease 163,193 square feet of industrial space located in Fremont, CA for the construction of a GMP manufacturing facility. The initial term of the lease is July 2021 through November 2031 and includes the option to extend for up to two additional five-year terms. The Company will be obligated to pay base rent of $28.6 million over the initial term of the lease. In accordance with the lease agreement, the Company has obtained a letter of credit in the amount of $6.4 million, which amount is subject to reduction to $0.5 million under certain circumstances starting in July 2023.

Item 2. 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 our audited consolidated financial statements and notes thereto and the related Management's Discussion and Analysis of Financial Condition and Results of Operations included as part of our 2020 Annual Report on Form 10-K as filed with the SEC on March 24, 2021 (2020 Form 10-K). This discussion and analysis and other parts of this Quarterly Report on Form 10-Q contain forward-looking statements based upon current beliefs, plans and expectations related to future events and our future financial performance that involve risks, uncertainties, and assumptions, such as statements regarding our intentions, plans, objectives, and expectations for our business. Our actual results and the timing of selected events could differ materially from those described in or implied by these forward-looking statements as a result of several factors, including those set forth in the section titled "Risk Factors." See also the section titled "Special Note Regarding Forward-Looking Statements."

Overview

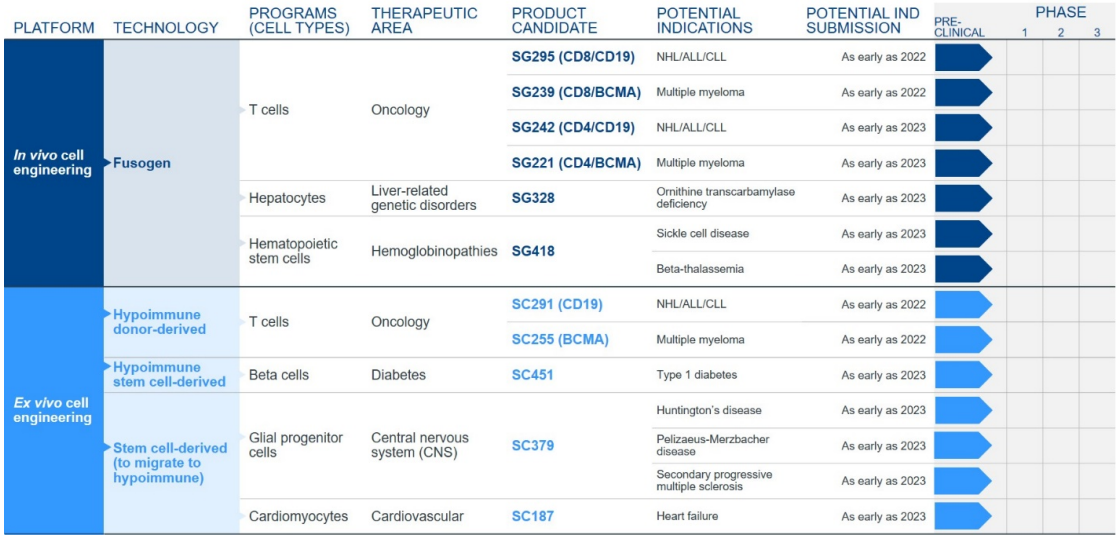
We were founded on the belief that engineered cells will be one of the most important transformations in medicine over the next several decades. The burden of diseases that can be addressed at their root cause through engineered cells is significant. We view engineered cells as having the potential to be as therapeutically disruptive as biologics to clinical practice. Our long-term aspirations are to be able to control or modify any gene in the body, to replace any cell that is damaged or missing, and to markedly improve access to cellular and gene-based medicines. We have brought together an experienced group of scientists, engineers, and company builders and combined them with the necessary technologies to move this vision forward. We are developing *in vivo* and *ex vivo* cell engineering platforms to revolutionize treatment across a broad array of therapeutic areas with unmet treatment needs, including oncology, diabetes, central nervous system disorders, cardiovascular diseases, and genetic disorders, among others. While our current product candidates are all in preclinical development, our goal is to file multiple investigational new drug applications (INDs) both in 2022 and 2023.

The process of repairing and controlling genes in the body, referred to as gene therapy or *in vivo* cell engineering, requires *in vivo* delivery of a therapeutic payload and modification of the genome. Of these, we believe delivery of a therapeutic payload represents the greatest unmet need and is thus at the core of our strategic focus, with our ultimate goal being the delivery of any payload to any cell in a specific and repeatable way. Our initial effort is on cell-specific delivery and increasing the diversity and size of payloads. Using our fusogen technology, we have shown in preclinical studies that we can specifically target numerous cell surface receptors that, when combined with delivery vehicles to form fusosomes, allow cell-specific delivery across multiple different cell types. We have initially chosen to focus this technology on delivering payloads to T cells, hepatocytes, and hematopoietic stem cells.

Frequently in disease, cells are damaged or missing entirely, and an effective therapy needs to replace the entire cell, an approach referred to as cell therapy or *ex vivo* cell engineering. A successful therapeutic requires an ability to manufacture cells at scale that engraft, function, and have the necessary persistence in the body. Of these, long-term persistence related to overcoming immunologic rejection of another person's cells has been the most challenging, which has led many to focus on autologous, or a patient's own, cells as the therapeutic source. However, autologous therapies require a complex process of harvesting cells from the patients, manipulating them outside the body, and returning them to the patient. Products utilizing this approach have had to manage significant challenges such as scalability, product variability, product quality, cost, patient accessibility, and a limited number of cell types being amenable to this approach. Given these limitations, rather than utilizing autologous cells to overcome immune rejection, we have invested in creating hypoimmune cells that can "hide" from the patient's immune system. We are striving to make therapies utilizing pluripotent stem cells with our hypoimmune genetic modifications as the starting material, which we then differentiate into a specific cell type, such as a pancreatic beta cell, before treating the patient. Additionally, for cell types for which effective differentiation protocols from a stem cell have not yet been developed, such as T cells, instead of starting from a pluripotent stem cell, we can utilize an allogeneic cell, differentiated cells sourced from a donor, as the starting material to which we then apply our hypoimmune genetic modifications.

We believe the time is right to develop engineered cell therapies across a broad range of therapeutic areas. Substantial progress in the understanding of genetics, gene editing, gene control, protein engineering, stem cell biology, immunology, process analytics, and computational biology have converged to create an opportunity to markedly increase the breadth and depth of the potential impact of genetic and cellular medicines. We are focused on creating transformative *in vivo* and *ex vivo* engineered cell therapies across a

range of therapeutic areas. We are in the early stages of development across a broad pipeline of product candidates, all of which are currently in the preclinical stage of development and are summarized below:



We continue to make scientific progress on developing our cell engineering platforms and advancing our product candidates through preclinical development and towards potential IND submissions. Given the depth and breadth of our portfolio, we expect to assess and prioritize our programs on an ongoing basis based on various factors, including internal and external opportunities and constraints, which may result in our decision to advance certain programs ahead or instead of others. As certain of our product candidates advance towards potential IND submissions, we are conducting GLP toxicity studies and establishing necessary scale-up for our manufacturing processes. With respect to our *in vivo* hepatocyte fusosome program, we have adjusted our expectations regarding the timing of a potential IND submission in order to accommodate for time necessary to achieve desired potency and yield.

Our *ex vivo* and *in vivo* technology represents an aggregation of years of innovation and technology from multiple academic institutions and companies, including our fusogen technology acquired from Cobalt Biomedicines Inc. (Cobalt), our *ex vivo* cell engineering programs focused on replacing damaged cells in the heart and certain brain disorders acquired from Cytocardia Inc. and Oscine Corp., respectively, and hypoimmune technology licensed from the President and Fellows of Harvard College (Harvard) and The Regents of the University of California, amongst others. For details regarding these acquisitions and license and collaboration agreements, see Note 3, Acquisitions and Note 5, License and collaboration agreements, and to our consolidated financial statements included in the 2020 Form 10-K, as well as the subsection titled “Business— Key Intellectual Property Agreements” in Part I, Item 1, of our 2020 Form 10-K.

We were incorporated in July 2018, and our operations to date have included developing our *in vivo* and *ex vivo* cell engineering platforms, identifying and developing potential product candidates, executing preclinical studies, establishing manufacturing capabilities, acquiring technology, organizing and staffing the company, business planning, establishing our intellectual property portfolio, raising capital, and providing general and administrative support for these operations. All of our programs are currently in the development stage, and we do not have any products approved for sale. Since our inception, we have incurred net losses each year. Our net losses for the six months ended June 30, 2021 and 2020 were $161.9 million and $120.7 million, respectively. As of June 30, 2021, we had an accumulated deficit of $591.4 million. Our net losses resulted primarily from our research and development programs, and, to a lesser extent, general and administrative costs associated with our operations. In addition, as of June 30, 2021 the accumulated deficit of $591.4 million includes non-cash charges of $106.5 million and $89.2 million related to the revaluation of the success payment liabilities and contingent consideration, respectively.

In February 2021, we completed our initial public offering (IPO) and issued 27.0 million shares of our common stock, including 3.5 million shares pursuant to the full exercise of the underwriters’ option to purchase additional shares, at a price of $25.0 per share and received net proceeds of $626.4 million. Prior to the IPO, we funded our operations from the issuance and sale of our convertible preferred stock, raising an aggregate of $705.5 million in gross proceeds. As of June 30, 2021, we had cash, cash equivalents, and marketable securities of $930.8 million. Based on our current operating plan, we believe that our existing cash, cash equivalents, and marketable securities will be sufficient to meet our working capital and capital expenditure needs for at least the next 36 months.

We anticipate that our expenses and operating losses will increase substantially over the foreseeable future. The expected increase in expenses will be driven in large part by our ongoing activities, if and as we: continue to advance our *in vivo* and *ex vivo* cell engineering platforms; continue preclinical development of our current and future product candidates and initiate additional preclinical studies; commence clinical studies of our current and future product candidates; establish our manufacturing capability, including developing our contract development and manufacturing relationships and building our internal manufacturing facility; acquire and license technologies aligned with our *in vivo* and *ex vivo* cell engineering platforms; seek regulatory approval of our current and future product candidates; expand our operational, financial, and management systems and increase personnel, including personnel to support our preclinical and clinical development, manufacturing, and commercialization efforts; continue to develop, grow, perfect, and defend our intellectual property portfolio; and incur additional legal, accounting, or other expenses in operating our business, including the additional costs associated with operating as a public company.

We are also investing early in building world class capabilities in key areas of manufacturing sciences and operations, including development of our *in vivo* and *ex vivo* cell engineering platforms, product characterization, and process analytics from the time candidates are in early research phases. Our investments also include scaled research solutions, scaled infrastructure, and novel technologies to improve efficiency, characterization, and scalability of manufacturing, including establishing an internal manufacturing facility.

We anticipate that we will need to raise additional financing in the future to fund our operations, including the commercialization of any approved product candidates. Until such time, if ever, as we can generate significant product revenue, we expect to finance our operations with our existing cash, cash equivalents, and marketable securities, any future equity or debt financings, and upfront, milestone, and royalty payments, if any, received under future license or collaboration agreements. We may not be able to raise additional capital on terms that are acceptable to us or at all. If we are unable to raise additional capital when desired, our business, results of operations, and financial condition would be adversely affected.

COVID-19 business update

The global COVID-19 pandemic continues to evolve rapidly, and we will continue to monitor it closely. The extent of the impact of the COVID-19 pandemic on our business, operations, and clinical development timelines and plans remains uncertain and will depend on certain developments, including the duration and spread of the pandemic and its impact on our ability to build out and operationalize our manufacturing facility, clinical trial enrollment, trial sites, contract research organizations (CROs), contract manufacturing organizations, suppliers of key materials and supplies, including raw materials, consumables and other equipment necessary to manufacture our product candidates, and other third parties with whom we do business, as well as its impact on regulatory authorities and our key scientific and management personnel. We have experienced modest delays in our discovery and development activities as a result of the COVID-19 pandemic, primarily due to temporary and partial shutdowns at certain of our CROs and academic institutions that have since resumed operations, and due to the Washington, California, and Massachusetts stay-at-home orders where our operations are located. However, to the extent possible, we are conducting business as usual, with necessary or advisable modifications to employee travel and most of our non-laboratory employees working remotely. We will continue to actively monitor the situation related to COVID-19 and may take further actions that alter our operations, including those that may be required by federal, state, or local authorities, or that we determine are in the best interests of our employees and other third parties with whom we do business.

Acquisitions

We have completed various acquisitions since inception. For details regarding our acquisitions, see Note 3, Acquisitions, to our consolidated financial statements included in our 2020 Form 10-K, as well as the subsection titled “Business—Key Intellectual Property Agreements” in Part I, Item 1 of our 2020 Form 10-K.

License and collaboration agreements

We have entered into license and collaboration arrangements with various third parties. For details regarding these agreements, see Note 5, License and collaboration agreements, to our consolidated financial statements included in our 2020 Form 10-K, as well as the subsection titled “Business— Key Intellectual Property Agreements” in Part I, Item 1, of our 2020 Form 10-K.

Success payments and contingent consideration

Cobalt success payment and contingent consideration

Pursuant to the terms of the Cobalt acquisition agreement, we have an obligation to pay contingent consideration (Cobalt Contingent Consideration) of up to an aggregate of $500.0 million to certain former Cobalt stockholders upon our achievement of

certain pre-specified development milestones (Cobalt Contingent Consideration), and a success payment (Cobalt Success Payment) of up to $500.0 million payable in cash or stock, at our discretion. The Cobalt Success Payment is payable, if at pre-determined valuation measurement dates, including our IPO and periodically thereafter, our market capitalization equals or exceeds $8.1 billion, and we are advancing a program based on the fusogen technology in a clinical trial pursuant to an IND, or have filed for, or received approval for, a biologics license application (BLA) or new drug application (NDA). As of June 30, 2021 a Cobalt Success Payment had not been triggered. In addition to our IPO, a valuation measurement date would be triggered upon a change of control if at least one of our programs based on the fusogen technology is the subject of an active research program at the time of such change of control. If there is a change of control and our market capitalization is below $8.1 billion as of the date of the change of control, the amount of the potential Cobalt Success Payment will decrease, and the amount of potential Cobalt Contingent Consideration will increase. See Note 3, Acquisitions to our condensed consolidated financial statements included elsewhere in this report for details on the different market capitalizations and impact to the amount of the potential Cobalt Success Payment and potential Cobalt Contingent Consideration if there is a change of control.

As of June 30, 2021 and December 31, 2020, the estimated fair value of the Cobalt Success Payment liability was $89.8 million and $64.7 million, respectively, and the estimated fair value of the Cobalt Contingent Consideration was $140.5 million and $121.9 million, respectively. The Cobalt Success Payment liability and Contingent Consideration are recorded in long-term liabilities on the condensed consolidated balance sheets. In connection with the change in the estimated fair value of the Cobalt Success Payment, we recognized a gain of $66.6 million and an expense of $33.5 million for the three months ended June 30, 2021 and 2020, respectively, and expenses of $25.1 million and $33.9 million for the six months ended June 30, 2021 and 2020, respectively. In connection with the change in the estimated fair value of the Cobalt Contingent Consideration, we recognized expenses of $7.2 million and $14.0 million for the three months ended June 30, 2021 and 2020, respectively, and $18.6 million and $14.3 million for the six months ended June 30, 2021 and 2020, respectively.

See Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations “—Critical accounting policies and significant judgments and estimates—Success payments” and “—Critical accounting policies and significant judgments and estimates—Contingent consideration” in our 2020 Form 10-K for more information on the accounting treatment of the Cobalt Success Payment and Cobalt Contingent Consideration.

Harvard success payments

Pursuant to the terms of the Harvard agreement, we may be required to make success payments up to an aggregate of $175.0 million, payable in cash, based on increases in the per share fair market value of our common stock (Harvard Success Payments). The potential Harvard Success Payments are based on multiples of increased value ranging from 5x to 40x based on a comparison of the per share fair market value of our common stock relative to the original issuance price of $4.00 per share at pre-determined valuation measurement dates. The Harvard Success Payments can be achieved over a maximum of 12 years from the effective date of the agreement. See Note 5, License and collaboration agreements to our unaudited condensed consolidated financial statements included elsewhere in this report for more details on the various per share common stock values that trigger a Harvard Success Payment.

We anticipate the first valuation measurement date to occur in February 2022, the one-year anniversary of our IPO, with valuation dates occurring periodically after this date. Additional valuation measurement dates are triggered by events which include: a merger, an asset sale, the sale of the majority of the shares held by Series A convertible preferred stockholders, and the last day of the term of the success payments. If a higher success payment tier is met at the same time a lower tier is met, both tiers will be owed. Any previous success payments made under the Harvard Agreement are credited against the success payment owed as of any valuation measurement date, so that Harvard does not receive multiple success payments in connection with the same threshold.

As of June 30, 2021 and December 31, 2020, the estimated fair value of the Harvard Success Payment liability was $19.1 million and $11.8 million, respectively. As of June 30, 2021 and December 31, 2020, $5.0 million and $0 were recorded in short-term liabilities, respectively and $14.1 million and $11.8 million were recorded in long-term liabilities in the condensed consolidated balance sheet, respectively. In connection with the change in the estimated fair value of the Harvard Success Payment liability, we recognized a gain of $16.6 million and an expense of $4.4 million for the three months ended June 30, 2021 and 2020, respectively, and expenses of $7.3 million and $4.6 million for the six months ended June 30, 2021 and 2020, respectively.

See Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations “—Critical accounting policies and significant judgments and estimates—Success payments” in our 2020 Form 10-K for more information on the accounting treatment of the Harvard Success Payments.

Components of operating results

Operating expenses

Research and development

To date, research and development expenses have related primarily to discovery and development of our platform technology and product candidates. Research and development expenses are recognized as incurred and payments made prior to the receipt of goods or services to be used in research and development are recorded as prepaid expenses until the goods or services are received.

Research and development expenses consist of personnel-related costs, including salaries, benefits, and non-cash stock-based compensation, external research and development expenses incurred under arrangements with third parties, laboratory supplies, costs to acquire and license technologies aligned with our goal of translating engineered cells to medicines, facility and other allocated expenses, including rent, depreciation, and allocated overhead costs, and other research and development expenses. The timing and amount of costs to acquire and license technologies in the future cannot be estimated with reliability and may fluctuate from quarter to quarter and year to year.

We deploy our employee and infrastructure resources across multiple research and development programs for developing our *in vivo* and *ex vivo* cell engineering platforms, identifying and developing product candidates, and establishing manufacturing capabilities. Due to our early stage of development, number of ongoing projects, and our ability to use resources across several projects, the vast majority of our research and development costs are not recorded on a program-specific basis. These include costs for personnel, laboratory, and other indirect facility and operating costs.

Research and development activities account for a significant portion of our operating expenses. We anticipate that our research and development expenses will increase over the foreseeable future as we expand our research and development efforts including expanding the capabilities of our cell engineering platforms, identifying product candidates, completing preclinical studies and commencing clinical trials, establishing internal and external manufacturing capabilities, seeking regulatory approval of our product candidates, and incurring costs to acquire and license technologies aligned with our goal of translating engineered cells to medicines. A change in the outcome of any of these factors could result in a significant change in the costs and timing associated with the development of our product candidates.

Research and development related success payments and contingent consideration

Research and development related success payments and contingent consideration include the change in the estimated fair value of our Cobalt and Harvard Success Payment liabilities and Cobalt Contingent Consideration. Research and development expense (gain) related to our success payment liabilities and contingent consideration is unpredictable and may vary significantly from quarter to quarter and year to year due to changes in the assumptions used in the calculation.

General and administrative

General and administrative expenses consist of personnel-related costs, including salaries, benefits, and non-cash stock-based compensation for our employees in finance, human resources, legal, information technology, executive, and other administrative functions, legal and consulting fees, insurance fees, and facility costs not otherwise included in research and development expenses. Legal fees include those related to corporate and patent matters.

We anticipate that our general and administrative expenses will increase over the foreseeable future to support our continued research and development activities, grow our business, and support future possible business development opportunities. We also anticipate incurring additional expenses related to audit and legal services associated with operating as a public company, maintaining compliance with the rules and regulations of the Securities and Exchange Commission (SEC) and standards applicable to companies listed on a national securities exchange, investor relations activities, and other administrative and professional services.

Interest income, net

Interest income, net consists of interest earned on our cash, cash equivalents, and marketable securities.

Results of operations

Comparison of the three and six months ended June 30, 2021 and 2020

The following table summarizes our results of operations for the periods presented (in thousands):

	Three Months Ended June 30,			Six Months Ended June 30,		
	2021	2020	Change	2021	2020	Change
Operating expenses (gains):						
Research and development	$ 44,996	$ 29,991	$ 15,005	$ 86,876	$ 56,397	$ 30,479
Research and development related success payments and contingent consideration	(76,025)	51,906	(127,931)	51,025	52,820	(1,795)
General and administrative	12,477	6,009	6,468	24,298	11,964	12,334
Total operating expenses (gains)	(18,552)	87,906	(106,458)	162,199	121,181	41,018
Gain (loss) from operations	18,552	(87,906)	106,458	(162,199)	(121,181)	(41,018)
Interest income, net	130	79	51	251	474	(223)
Other income, net	1	19	(18)	14	24	(10)
Net income (loss)	$ 18,683	$ (87,808)	$ 106,491	$ (161,934)	$ (120,683)	$ (41,251)

Research and development expenses

The following table summarizes the components of our research and development expenses for the periods presented:

	Three Months Ended June 30,		
	2021	2020	Change
	(in thousands)		
Personnel	$ 17,689	$ 10,714	$ 6,975
Research and laboratory	14,710	8,985	5,725
Facility and other allocated costs	11,387	7,172	4,215
Other	1,210	3,120	(1,910)
Total research and development expense	$ 44,996	$ 29,991	$ 15,005

Research and development expense was $45.0 million and $30.0 million for the three months ended June 30, 2021 and 2020, respectively. The increase of $15.0 million was primarily due to:

- increased personnel-related expenses of $7.0 million, including non-cash stock-based compensation of $2.2 million, which was primarily attributable to an increase in headcount to expand our research and development capabilities;
- an increase of $5.7 million in research and laboratory costs, including laboratory supplies, preclinical studies, and other external research expenses; and
- an increase of $4.2 million of facility and allocated costs, including rent, depreciation, and allocated overhead costs.

The following table summarizes the components of our research and development expenses for the periods presented:

	Six Months Ended June 30,		
	2021	2020	Change
	(in thousands)		
Personnel	$ 34,753	$ 21,234	$ 13,519
Research and laboratory	28,099	17,821	10,278
Facility and other allocated costs	20,843	13,231	7,612
Other	3,181	4,111	(930)
Total research and development expense	$ 86,876	$ 56,397	$ 30,479

Research and development expense was $86.9 million and $56.4 million for the six months ended June 30, 2021 and 2020, respectively. The increase of $30.5 million was primarily due to:

- increased personnel-related expenses of $13.5 million, including non-cash stock-based compensation of $4.2 million, which was primarily attributable to an increase in headcount to expand our research and development capabilities;

- an increase of $10.3 million in research and laboratory costs, including preclinical studies, laboratory supplies, and other external research expenses; and
- an increase of $7.6 million of facility and allocated costs, including rent, depreciation, and allocated overhead costs.

Research and development related success payments and contingent consideration

The following table summarizes the expenses (gains) associated with research and development related success payments and contingent consideration for the periods presented:

	Three Months Ended June 30,		
	2021	2020	Change
	(in thousands)		
Success payments	$ (83,188)	$ 37,929	$ (121,117)
Contingent consideration	7,163	13,977	(6,814)
Total research and development related success payments and contingent consideration	$ (76,025)	$ 51,906	$ (127,931)

For the three months ended June 30, 2021 and 2020, we recognized a non-cash gain of $76.0 million and a non-cash expense of $51.9 million for the changes in the estimated fair value of research and development related success payments and contingent consideration. The decrease of $127.9 million was due to a decrease of $121.1 million for the change in the estimated fair value of our Cobalt Success Payment and Harvard Success Payment liabilities in aggregate due to changes in our market capitalization and stock price during the relative periods. Also, the estimated fair value of the Cobalt Contingent Consideration decreased $6.8 primarily due to the change in the discount rate offset by scientific progress made toward the achievement of milestone during the relative periods.

The following table summarizes the expenses associated with research and development related success payments and contingent consideration for the for the periods presented:

	Six Months Ended June 30,		
	2021	2020	Change
	(in thousands)		
Success payments	$ 32,469	$ 38,481	$ (6,012)
Contingent consideration	18,556	14,339	4,217
Total research and development related success payments and contingent consideration	$ 51,025	$ 52,820	$ (1,795)

For the six months ended June 30, 2021 and 2020 we recognized non-cash expenses of $51.0 million and $52.8 million for the changes in the estimated fair value of research and development related success payments and contingent consideration. The decrease of $1.8 million was due to a decrease of $6.0 million for the change in the estimated fair value of our Cobalt Success Payment and Harvard Success Payment liabilities in aggregate due to changes in our market capitalization and stock price during the relative periods, offset by an increase of $4.2 for the change in the estimated fair value of the Cobalt Contingent Consideration due to scientific progress made toward the achievement of milestones during the relative periods.

General and administrative Expenses

General and administrative expenses were $12.5 million and $24.3 million for the three and six months ended June 30, 2021, respectively, compared to $6.0 million and $12.0 million for the three and six months ended June 30, 2020, respectively.

The increase of $6.5 million for the three months ended June 30, 2021 was primarily due to increased personnel-related expenses of $2.8 million, including non-cash stock-based compensation of $1.6 million, primarily attributable to an increase in headcount to build our infrastructure, increased legal fees to support our patent portfolio and licensing arrangements of $1.5 million, increased insurance of $1.0 million associated with being a public company, consulting fees of $0.4 million, and facility costs, including rent, of $0.3 million.

The increase of $12.3 million for the six months ended June 30, 2021 was primarily due to increased personnel-related expenses of $5.3 million, including non-cash stock-based compensation of $3.0 million, primarily attributable to an increase in headcount to build our infrastructure, increased legal fees of to support our patent portfolio and licensing arrangements $2.4 million, increased insurance of $2.0 million associated with being a public company, consulting fees of $0.8 million, and facility costs, including rent, of $0.7 million.

Interest income, net

Interest income, net was $0.1 million and $0.3 million for the three and six months ended June 30, 2021, respectively, compared to $0.1 million and $0.5 million for the three and six months ended June 30, 2020, respectively. The decrease of $0.2 million for the six months ended June 30, 2021 was due to lower interest rates on cash and marketable securities balances, offset by an increase in our total cash and marketable securities balances.

Liquidity, capital resources, and capital requirements

Sources of liquidity

As of June 30, 2021, we had $930.8 million in cash, cash equivalents, and marketable securities. To date we have raised an aggregate of approximately $1.3 billion in net proceeds through our IPO and private placements of our convertible preferred stock. Since our inception, we have not generated any revenue from product sales or any other sources, and we have incurred significant operating losses. We have not yet commercialized any products, and we do not expect to generate revenue from sales of any product candidates for a number of years, if ever.

Future funding requirements

We expect to incur additional losses in the foreseeable future as we conduct and expand our research and development efforts, including conducting preclinical studies and clinical trials, developing new product candidates, establishing internal and external manufacturing capabilities, and funding our operations generally.

Based on our current operating plan, we believe that our existing cash, cash equivalents, and marketable securities will be sufficient to meet our working capital and capital expenditure needs for at least the next 36 months. However, we anticipate that we will need to raise additional financing in the future to fund our operations, including the commercialization of any approved product candidates. We are subject to the risks typically related to the development of new products, and we may encounter unforeseen expenses, difficulties, complications, delays, and other unknown factors that may adversely affect our business.

Our future capital requirements will depend on many factors, including:

- the scope, timing, progress, costs, and results of discovery, preclinical development, and clinical trials for our current and future product candidates;
- the number of clinical trials required for regulatory approval of our current and future product candidates;
- the costs, timing, and outcome of regulatory review of any of our current and future product candidates;
- the cost associated with building our manufacturing capabilities, as well as costs associated with the manufacturing of clinical and commercial supplies of our current and future product candidates;
- the costs and timing of future commercialization activities, including manufacturing, marketing, sales, and distribution, for any of our product candidates for which we receive marketing approval;
- the costs and timing of preparing, filing, and prosecuting patent applications, maintaining and enforcing our intellectual property rights, and defending any intellectual property-related claims, including any claims by third parties that we are infringing upon their intellectual property rights;
- our ability to maintain existing, and establish new, strategic collaborations, licensing, or other arrangements and the financial terms of any such agreements, including the timing and amount of any future milestone, royalty, or other payments due under any such agreement;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval;
- expenses to attract, hire, and retain skilled personnel;
- the costs of operating as a public company;
- our ability to establish a commercially viable pricing structure and obtain approval for coverage and adequate reimbursement from third-party and government payers;
- our ability to address any potential interruptions or delays resulting from factors related to the COVID-19 pandemic;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products, and technologies.

Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations from the sale of additional equity or debt financings, or other capital obtained in connection with strategic collaborations or licensing or other arrangements. In the event that additional financing is required, we may not be able to raise it on terms that are acceptable to us or at all. If we raise additional funds through the issuance of equity or convertible debt securities, it may result in dilution to our existing stockholders. Debt financing, if available, may result in increased fixed payment obligations, and the existence of securities with rights that may be senior to those of our common stock. If we incur indebtedness, we could become subject to covenants that would restrict our operations. If we raise funds through strategic collaborations or licensing or other arrangements, we may relinquish significant rights or grant licenses on terms that are not favorable to us. Our ability to raise additional funds 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 and otherwise. If we are unable to raise additional capital when desired, our business, results of operations, and financial condition would be adversely affected.

Cash flows

The following table summarizes our cash flows for the periods indicated:

	Six Months Ended June 30,	
	2021	2020
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (90,469)	$ (62,913)
Investing activities	13,767	2,709
Financing activities	627,036	435,580
Net increase in cash, cash equivalents, and restricted cash	$ 550,334	$ 375,376

Operating activities

During the six months ended June 30, 2021, net cash used in operating activities was $90.5 million, consisting primarily of our net loss of $161.9 million, partially offset by the change in our net operating assets and liabilities of $5.6 million and non-cash charges of $65.8 million. The non-cash charges of $65.8 million consisted of $32.4 million for revaluation of our success payment liabilities, $18.6 million for revaluation of contingent consideration, non-cash stock-based compensation expense of $9.1 million, depreciation expense of $4.9 million, and other non-cash charges of $0.8 million.

During the six months ended June 30, 2020, net cash used in operating activities was $62.9 million, consisting of our net loss of $120.7 million and the change in our net operating assets and liabilities of $1.8 million, partially offset by non-cash charges of $59.6 million. The non-cash charges of $59.6 million consisted of $38.5 million for revaluation of success payment liabilities, $14.3 million for revaluation of contingent consideration, depreciation expense of $2.6 million, non-cash stock-based compensation expense of $1.9 million, and other non-cash charges of $2.3 million.

Investing activities

During the six months ended June 30, 2021 and 2020, cash provided by investing activities was $13.8 million and $2.7 million, respectively. This consisted primarily of sales and maturities, less purchases, of marketable securities of $30.4 million and $11.0 million, offset by purchases of property and equipment of $16.6 million and $8.3 million for the six months ended June 30, 2021 and 2020, respectively.

Financing activities

During the six months ended June 30, 2021, cash provided by financing activities was $627.0 million, consisting primarily of net proceeds from our IPO of $626.4 million. During the three months ended June 30, 2020, cash provided by financing activities was $435.6 million, consisting primarily of proceeds from the sale of our convertible preferred stock.

Contractual obligations and commitments

The following table summarizes our significant contractual obligations and commitments as of June 30, 2021:

	Payments Due by Period				
	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years	Total
	(in thousands)				
Operating lease obligations	$ 14,260	$ 31,736	$ 30,741	$ 35,223	$ 111,960
Purchase obligations	750	-	-	-	750
Total contractual obligations	$ 15,010	$ 31,736	$ 30,741	$ 35,223	$ 112,710

Other than as disclosed in the table above, the payment obligations under our license, collaboration, and acquisition agreements as of June 30, 2021 are contingent upon future events such as our achievement of pre-specified development, regulatory, and commercial milestones or royalties on net product sales. See the section titled "Business—Key Intellectual Property Agreements" in Part I, Item 1 of our 2020 Form 10-K for more information about these payment obligations. We are also obligated to make a success payment to Cobalt of up to $500.0 million, payable in cash or stock at our discretion, pursuant to the terms and conditions in the Cobalt acquisition agreement, and success payments to Harvard up to an aggregate of $175.0 million, payable in cash. See Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations "—Critical accounting policies and significant judgments and estimates—Success payments" in our 2020 Form 10-K for more information on the success payments. As of June 30, 2021, the timing and likelihood of achieving the milestones and success payments and generating future product sales are uncertain and, therefore, any related payments are not included in the table above.

We also enter into agreements in the normal course of business for sponsored research, preclinical studies, contract manufacturing, and other services and products for operating purposes, which are generally cancelable upon written notice. These obligations and commitments are not included in the table above.

Off-balance sheet arrangements

Since our inception, we have not engaged in any off-balance sheet arrangements as defined under the rules and regulations of the SEC.

JOBS Act accounting election

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act). We will cease to be an emerging growth company until the earliest of (1) December 31, 2026, (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 Exchange Act, which would occur if the fair market value of our 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. For so long as we remain an emerging growth company, we are permitted and intend to rely on certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have elected to use the extended transition period for any new or revised accounting standards during the period in which we remain an emerging growth company; however, we may adopt certain new or revised accounting standards early if the standard allows early adoption. As of June 30, 2021, the fair market value of our common stock held by non-affiliates exceeded $700.0 million. Therefore, we will cease to be an emerging growth company as of December 31, 2021.

Critical accounting policies and significant judgements and estimates

Our condensed consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States. The preparation of these financial statements requires us to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. 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. The critical accounting policies used in preparation of these

condensed consolidated financial statements as of June 30, 2021 and for the three and six months ended June 30, 2021 and 2020 are consistent with those discussed in Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations "—Critical accounting policies and significant judgments and estimates" in our 2020 Form 10-K.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risks in the ordinary course of our business, primarily related to interest rate sensitivities and the volatility of our stock price.

Interest Rate Risk

As of June 30, 2021, we had cash, cash equivalents, and restricted cash of $677.3 million, which consisted of bank deposits and money market funds. We also had marketable securities of $255.6 million as of June 30, 2021. The primary objective of our investment activities is to preserve capital to fund our operations while earning a low risk return. Because our marketable securities are primarily short-term in duration, we believe that our exposure to interest rate risk is not significant, and a hypothetical 10% change in market interest rates during any of the periods presented would not have had a significant impact on the total value of our portfolio. We had no debt outstanding as of June 30, 2021.

Foreign Currency

Our functional currency is the U.S. dollar. We are exposed to foreign currency rate risk related to various third-party service contracts denominated in foreign currencies. Transaction gains and losses are included in other income (expense), net on our statements of operations and were not material for any of the periods presented. A hypothetical 10% change in exchange rates during any of the periods presented would not have had a material impact on our financial statements.

Effects of Inflation

Inflation generally affects us by increasing our cost of labor. We believe that inflation has not had a material effect on our financial statements.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of June 30, 2021, management, with the participation of our Chief Executive Officer and Chief Financial Officer, have evaluated our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. 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 this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of June 30, 2021, the design and operation of our disclosure controls and procedures were effective at a reasonable assurance level.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the quarter ended June 30, 2021, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are not currently a party to any material legal proceedings. From time to time, we may, however, in the ordinary course of business face various claims brought by third parties, and we may, from time to time, make claims or take legal actions to assert our rights, including intellectual property rights as well as claims relating to employment matters and the safety or efficacy of our products. Any of these claims could subject us to costly litigation, and, while we generally believe that we have adequate insurance to cover many different types of liabilities, our insurance carriers may deny coverage, may be inadequately capitalized to pay on valid claims, or our policy limits may be inadequate to fully satisfy any damage awards or settlements. If this were to happen, the payment of any such awards could have a material adverse effect on our operations, cash flows or financial position. Additionally, any such claims, whether or not successful, could damage our reputation and business.

Item 1A. Risk Factors

Investing in shares of our common stock involves a high degree of risk. You should carefully consider the following risks and uncertainties, together with all of the other information contained in this Quarterly Report on Form 10-Q, including our financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q, before making an investment decision. The risks described below are not the only ones facing us. Moreover, we may have already experienced the circumstances described in one or more of the risk factors described below. Many of the following risks and uncertainties are, and will continue to be, exacerbated by the COVID-19 pandemic and any worsening of the global business and economic environment as a result. The occurrence of any of the following risks, or of additional risks and uncertainties not presently known to us or that we currently believe to be immaterial, could materially and adversely affect our business, financial condition, reputation, or results of operations. In such case, the trading price of shares of our common stock could decline, and you may lose all or part of your investment.

Summary Risk Factors

The summary risk factors set forth below are the principal risks that we believe are material to our investors and a reader should carefully consider them. The following is a summary of the principal risks and uncertainties; however, there are additional risks and uncertainties described in this "Risk factors" section. This summary does not address every aspect of our risks factors, all of the risks that we face, or other factors not presently known to us or that we currently believe are immaterial.

The following is a summary of the principal risks and uncertainties described in more detail in this Quarterly Report:

- We are a preclinical-stage biotechnology company and have incurred significant losses since our inception, and we expect to incur losses for the foreseeable future. We have no products approved for commercial sale and may never achieve or maintain profitability.
- Our limited operating history may make it difficult for you to evaluate our prospects and likelihood of success.
- Our *in vivo* and *ex vivo* cell engineering platforms are based on novel technologies that are unproven and may not result in approvable or marketable products, which exposes us to unforeseen risks and makes it difficult for us to predict the time and cost of product development and potential for regulatory approval, and we may not be successful in our efforts to use and expand our technology platforms to build a pipeline of product candidates.
- All of our product candidates are in preclinical development and none have commenced clinical development. Preclinical and clinical drug development is a lengthy and expensive process with uncertain timelines and uncertain outcomes. If preclinical studies or clinical trials of a product candidate are prolonged or delayed, we may be unable to obtain required regulatory approvals and therefore unable to commercialize our product candidates on a timely basis or at all.
- The development and commercialization of biopharmaceutical products is subject to extensive regulation, and the regulatory approval processes of the U.S. Food and Drug Administration (FDA) and comparable foreign authorities are lengthy, time-consuming, and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates on a timely basis, if at all, our business will be substantially harmed.
- Our clinical trials may fail to demonstrate substantial evidence of the safety and efficacy of our product candidates or any future product candidates, which would prevent or delay or limit the scope of regulatory approval and commercialization.
- We may encounter difficulties in managing our growth, which could disrupt our operations.
- The ongoing COVID-19 pandemic could materially and adversely affect our preclinical studies and development, our manufacturing capabilities, including with respect to our ability to build out and operationalize our manufacturing facility and our ability to obtain key materials, consumables and equipment necessary to manufacture our product candidates, any clinical trials we subsequently commence, and our business, financial condition, and results of operations.

- We will require additional funding in order to finance our operations. If we are unable to raise capital when needed, or on acceptable terms, we could be forced to delay, reduce, or eliminate our product development programs or commercialization efforts.
- Our success payment and contingent consideration obligations may result in dilution to our stockholders, may be a drain on our cash resources, or may cause us to incur debt obligations to satisfy the payment obligations.
- If we are unable to successfully identify, develop, and commercialize any product candidates, or experience significant delays in doing so, our business, financial condition, and results of operations will be materially adversely affected.
- Our success depends on our ability to protect our intellectual property and our proprietary technologies.
- We depend on intellectual property licensed from third parties, and if we breach our obligations under these agreements or if any of these agreements is terminated, we may be required to pay damages, lose our rights to such intellectual property and technology, or both, which would harm our business.
- While we believe our pipeline will yield multiple investigational new drug applications (INDs), we may not be able to file INDs to commence clinical trials on the timelines we expect, and even if we are able to, the FDA may not permit us to proceed.

Risks Related to Our Limited Operating History, Financial Condition and Need for Additional Capital

We are a preclinical-stage biotechnology company and have incurred significant losses since our inception, and we expect to incur losses for the foreseeable future. We have no products approved for commercial sale and may never achieve or maintain profitability.

We are a preclinical-stage biotechnology company with a limited operating history. Biotechnology product development is a highly speculative undertaking and involves a substantial degree of risk. We have incurred significant losses since inception, have not generated any revenue from product sales, and have financed our operations historically through private placements of our convertible preferred stock and, more recently, through our IPO. We expect that it will be several years, if ever, before we have a commercialized product and generate revenue from product sales. We had net losses of $161.9 million and $120.7 million for the six months ended June 30, 2021 and 2020, respectively. As of June 30, 2021, we had an accumulated deficit of $591.4 million. Our losses have resulted principally from expenses incurred for the research and development of our *in vivo* and *ex vivo* cell engineering platforms and from management and administrative costs and other expenses that we have incurred while building our business infrastructure.

We expect our operating losses will continue to increase substantially for the foreseeable future as we expand our research and development efforts, expand the capabilities of our cell engineering platforms, identify product candidates, establish internal and external manufacturing capabilities, complete preclinical studies and commence clinical trials, seek regulatory approval and commercialization of our product candidates, and operate as a public company. We anticipate that our expenses will increase substantially as we:

- continue to advance our *in vivo* and *ex vivo* cell engineering platforms;
- continue preclinical development of our current and future product candidates and initiate additional preclinical studies;
- commence clinical studies of our current and future product candidates;
- establish our manufacturing capability, including developing our contract development and manufacturing organization (CDMO) relationships and building our internal manufacturing facilities;
- acquire and license technologies aligned with our *in vivo* and *ex vivo* cell engineering platforms;
- seek regulatory approval of our current and future product candidates;
- expand our operational, financial, and management systems and increase personnel, including personnel to support our preclinical and clinical development, manufacturing, and commercialization efforts;
- continue to develop, perfect, and defend our intellectual property portfolio; and
- incur additional legal, accounting, or other expenses in operating our business, including the additional costs associated with operating as a public company.

We have devoted a significant portion of our financial resources and efforts to building our organization, developing our *in vivo* and *ex vivo* cell engineering platforms, identifying and developing potential product candidates, executing preclinical studies, establishing manufacturing capabilities, acquiring technology, organizing and staffing the company, business planning, establishing our intellectual property portfolio, raising capital, and providing general and administrative support for these operations. We are in the

early stages of development of our product candidates, have not yet commenced any clinical trials for any of our product candidates, and have not completed development or commercialization of any product candidate.

To become and remain profitable, we must succeed in identifying, developing, getting regulatory approval for and eventually commercializing products that generate significant revenue. This will require us to be successful in a range of challenging activities, including completing preclinical studies and clinical trials of our product candidates, continuing to discover and develop additional product candidates, obtaining regulatory approval for any product candidates that successfully complete clinical trials, accessing manufacturing capacity, establishing marketing capabilities, and commercializing and ultimately selling any products for which we may obtain regulatory approval. We may never succeed in any or all of these activities and, even if we do, we may never generate revenue that is sufficient to achieve profitability. Even if we do achieve profitability, we may not be able to sustain profitability or meet outside expectations for our profitability. If we are unable to achieve or sustain profitability or to meet outside expectations for our profitability, the value of our shares of common stock could be materially adversely affected.

Because of the numerous risks and uncertainties associated with pharmaceutical products and biological development, we are unable to accurately predict the timing or increases in the amount of expenses we will incur or when, or if, we will be able to achieve profitability. If we are required by the FDA or comparable foreign regulatory authorities to perform studies in addition to those we currently anticipate, or if there are any delays in commencing or completing our clinical trials or the development of any of our product candidates, our expenses could increase and our ability to obtain commercial revenue could be further delayed and become more uncertain, which will have a material adverse impact on our business.

We will require additional funding in order to finance our operations. If we are unable to raise capital when needed, or on acceptable terms, we could be forced to delay, reduce, or eliminate our product development programs or commercialization efforts.

Developing biopharmaceutical products, including conducting preclinical studies and clinical trials, is a very time-consuming, expensive and uncertain process that takes years to complete. Our operations have consumed substantial amounts of cash since inception, and we expect our expenses to increase in connection with our ongoing activities, particularly as we conduct clinical trials of, and seek regulatory and marketing approval for, our product candidates. Even if one or more of our product candidates is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. To date, we have funded our operations from private placements of our convertible preferred stock and, more recently, our IPO. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the preclinical development of our *in vivo* and *ex vivo* platforms and product candidates, advance our product candidate into and through clinical trials, and continue to research, develop, and conduct preclinical studies of other potential product candidates.

In addition, if we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales, and distribution. Furthermore, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce, or eliminate our research and development programs or any future commercialization efforts.

As of June 30, 2021, we had $930.8 million in cash, cash equivalents, and marketable securities. Based on our current business plans, we believe that our existing cash, cash equivalents, and marketable securities at June 30, 2021, will be sufficient to fund our operating expenses and capital expenditure requirements for at least the next 36 months. We have based this estimate on assumptions that may prove to be wrong, and we could use our capital resources sooner than we currently expect, requiring us to seek additional funds sooner than planned, through public or private equity or debt financings or other sources, such as strategic collaborations. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop our product candidates. Our future capital requirements will depend on many factors, including:

- the scope, timing, progress, costs, and results of discovery, preclinical development, and clinical trials for our current or future product candidates;
- the number of clinical trials required for regulatory approval of our current or future product candidates;
- the costs, timing, and outcome of regulatory review of any of our current or future product candidates;
- the cost associated with building our manufacturing capabilities, as well as costs associated with the manufacturing of clinical and commercial supplies of our current or future product candidates;

- the costs and timing of future commercialization activities, including manufacturing, marketing, sales, and distribution, for any of our product candidates for which we receive marketing approval;
- the costs and timing of preparing, filing, and prosecuting patent applications, maintaining and enforcing our intellectual property rights, and defending any intellectual property-related claims, including any claims by third parties that we are infringing upon their intellectual property rights;
- our ability to maintain existing, and establish new, strategic collaborations, licensing, or other arrangements and the financial terms of any such agreements, including the timing and amount of any future milestone, royalty, or other payments due under any such agreement;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval;
- expenses to attract, hire, and retain skilled personnel;
- the costs of operating as a public company;
- our ability to establish a commercially viable pricing structure and obtain approval for coverage and adequate reimbursement from third-party and government payers;
- addressing any potential interruptions or delays resulting from factors related to the COVID-19 pandemic;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products, and technologies.

Our ability to raise additional funds will depend on financial, economic, political and market conditions and other factors over which we may have no or limited control. Market volatility resulting from the COVID-19 pandemic or other factors could also adversely impact our ability to access capital as and when needed. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we could be required to:

- delay, limit, reduce, or terminate preclinical studies, clinical trials, or other research and development activities, or eliminate one or more of our development programs altogether; or
- delay, limit, reduce, or terminate our efforts to access manufacturing capacity, establish sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates, or reduce our flexibility in developing or maintaining our sales and marketing strategy.

Our success payment and contingent consideration obligations in our license and acquisition agreements may result in dilution to our stockholders, may be a drain on our cash resources, or may cause us to incur debt obligations to satisfy the payment obligations.

We agreed to make success payments, payable in cash, pursuant to our license agreement with the President and Fellows of Harvard College (Harvard) and contingent consideration and success payments, payable in cash or stock at our discretion, pursuant to the terms and conditions of our acquisition agreement with Cobalt Biomedicine, Inc. (Cobalt). The success payments to Harvard (Harvard Success Payments) are based on increases in the fair value of our common stock. The potential Harvard Success Payments are based on multiples of increased value ranging from 5x to 40x based on a comparison of the per share fair value of our common stock relative to the original $4.00 issuance price at pre-determined valuation measurement dates. The amount of the Harvard Success Payments will not exceed an aggregate of $175.0 million, which would only occur upon a 40x increase in value. The Harvard Success Payments can be achieved over a maximum of 12 years from the effective date of the agreement. The valuation measurement dates for the Harvard Success Payments are triggered by events which include: the one-year anniversary of our IPO, and periodically thereafter, and the date of the consummation of a merger, an asset sale, or the sale of the majority of the shares held by our Series A convertible preferred stockholders, and the last day of the term of the success payments. If a higher success payment tier is met at the same time a lower tier is first met, both tiers will be owed. Any previous success payments made to Harvard are credited against the success payment owed as of any valuation measurement date so that Harvard does not receive multiple success payments in connection with the same threshold.

In connection with the Cobalt acquisition, we have an obligation to pay contingent consideration (Cobalt Contingent Consideration) of up to an aggregate of $500.0 million to certain former Cobalt stockholders upon our achievement of certain pre-defined development milestones. Additionally, we are obligated to pay a success payment to certain Cobalt shareholders (Cobalt Success Payment) of $500.0 million if, at pre-determined valuation measurement dates, including our IPO and periodically thereafter, our market capitalization equals or exceeds $8.1 billion, and we are advancing a program based on the fusogen technology in a clinical trial pursuant to an IND, or have filed for, or received approval for, a biologics license application (BLA) or new drug application (NDA). In addition to our IPO, a valuation measurement date would be triggered upon a change of control if at least one of our

programs based on the fusogen technology is the subject of an active research program at the time of such change of control. If there is a change of control and our market capitalization is below $8.1 billion as of the date of the change of control, the amount of the potential Cobalt Success Payment will decrease, and the amount of potential Cobalt Contingent Consideration will increase. The term of the Cobalt Success Payment is 20 years from the date of the Cobalt acquisition. See Note 3, Acquisitions, to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for details on the different company valuation thresholds and the impact on the value of the potential Cobalt Success Payment and potential Cobalt Contingent Consideration following a change of control.

In order to satisfy our obligations to make these success payments, if and when they are triggered, we may issue equity or convertible debt securities that may cause dilution to our stockholders, or we may use our existing cash or incur debt obligations to satisfy the success payment obligations in cash, which may adversely affect our financial position. In addition, these success payments may impede our ability to raise money in future public offerings of debt or equity securities or to obtain a third party line of credit. We expect the first valuation measurement date for the Harvard Success Payments to be the one-year anniversary of our IPO. See Note 5, License and collaboration agreements, to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for the per share common stock prices that trigger a Harvard Success Payment and the corresponding payment amount. The first valuation measurement date for the Cobalt Success Payment was our IPO, but our IPO did not trigger such a payment. However, such payment is dependent on our progress on fusogen-related product candidates and our market capitalization, which is unpredictable and may fluctuate significantly from quarter to quarter and year to year.

The contingent consideration and success payment obligations in our license and acquisition agreements may cause our operating results, net losses, and financial condition as reported by U.S. generally accepted accounting principles (GAAP) to fluctuate significantly from quarter to quarter and year to year, which may reduce the usefulness of our financial statements.

Our success payment and contingent consideration obligations under our license and acquisition agreements are recorded as liabilities on our condensed consolidated balance sheets. Under GAAP, we are required to estimate the fair value of these liabilities as of each quarter end, with changes in the estimated fair value recorded in research and development related success payments and contingent consideration. Factors that may lead to increases or decreases in the estimated fair value of the success payment liabilities include, among others, changes in the value of our common stock and market capitalization, changes in volatility, the estimated number and timing of valuation measurement dates, the term of the success payments, and changes in the risk-free interest rate. Factors that may lead to increases or decreases in the estimated fair value of our contingent consideration obligations include, among others, the estimated likelihood and timing within which milestones may be achieved and the estimated discount rates. A small change in the inputs and related assumptions with respect to our success payment and contingent consideration liabilities may result in a relatively large change in the estimated valuation and associated liabilities and resulting expense or gain. As a result, our operating results, net losses, and financial condition as reported by GAAP may fluctuate significantly from quarter to quarter and year to year for reasons unrelated to our operations, which may reduce the usefulness of our GAAP financial statements.

For example, as of June 30, 2021, March 31, 2021, and December 31, 2020, the estimated fair value of the Cobalt Success Payment liability was $89.8 million, $156.5 million, and $64.7 million, respectively, and the estimated fair value of the Harvard Success Payment liability was $19.1 million, $35.7 million, and $11.8 million, respectively. For the three and six months ended June 30, 2021, we recorded a gain of $76.0 million and an expense of $51.0 million, respectively, related to the change in the estimated fair value of the success payments in aggregate. As of June 30, 2021, March 31, 2021, and December 31, 2020, the estimated fair value of the Cobalt Contingent Consideration was $140.5 million, $133.3 million, and $121.9 million, respectively. For the three and six months ended June 30, 2021, we recorded expenses of $7.2 million and $14.0 million, respectively, related to the change in the estimated fair value of the Cobalt Contingent Consideration. In addition, we recorded net income of $18.7 million for the three months ended June 30, 2021 and net loss of $161.9 million for the six months ended June 30, 2021, respectively. Moreover, for the Harvard Success Payments, keeping all other variables constant, a hypothetical 20% increase in our common stock price at June 30, 2021 from $19.66 per share to $23.59 per share would have decreased the gain recorded in the three months ended June 30, 2021 associated with the success payment liability by $4.8 million. A hypothetical 20% decrease in the stock price from $19.66 per share to $15.73 per share would have increased the gain recorded in three months ended June 30, 2021 associated with the success payment liability by $4.7 million. For the Cobalt Success Payment, keeping all other variables constant, a hypothetical 20% increase in our market capitalization at June 30, 2021 from $3.5 billion to $4.2 billion would have decreased the gain recorded in the three months ended June 30, 2021 associated with the success payment liability by $18.4 million. A hypothetical 20% decrease in our market capitalization from $3.5 billion to $2.8 billion would have increased the gain recorded in three months ended June 30, 2021 associated with the success payment liability by $19.1 million.

Although we have incurred net losses in each period since our inception and expect to continue to incur net losses for the foreseeable future, the net income we recorded for the three months ended June 30, 2021 was solely due to the decrease in the estimated fair value of our success payments. It is possible that future fluctuations in the price of our common stock and market capitalization and the resulting change in the estimated fair value of our success payments could again lead us to record net income in a future period despite us incurring operating losses and negative cash flows during such period. Alternatively, significant stock appreciation during a future period could lead to a significant increase in our recorded GAAP net loss.

Our limited operating history may make it difficult for you to evaluate our prospects and likelihood of success.

We are a preclinical-stage biopharmaceutical company with a limited operating history upon which you can evaluate our business and prospects. Since our inception in July 2018, we have devoted substantially all of our resources and efforts to building our organization, developing our *in vivo* and *ex vivo* cell engineering platforms, identifying and developing potential product candidates, executing preclinical studies, establishing manufacturing capability, acquiring technology, organizing and staffing the company, business planning, establishing and securing our intellectual property portfolio, raising capital, and providing general and administrative support for these operations. Since all of our product candidates are still in preclinical development, we have not yet demonstrated our ability to successfully commence or complete any clinical trials (including Phase 3 or other pivotal clinical trials), obtain regulatory approvals, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Additionally, we expect our financial condition and operating results to continue to fluctuate significantly from period to period due to a variety of factors, many of which are beyond our control. Consequently, any predictions you may make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors and risks frequently experienced by preclinical-stage biopharmaceutical companies in rapidly evolving fields. We also may need to transition from a company with a research focus to a company capable of supporting commercial activities. If we do not adequately address these risks and difficulties or successfully make such a transition, it could have a material adverse impact on our business.

Risks Related to Our Business

Our in vivo and ex vivo platforms are based on novel technologies that are unproven and may not result in approvable or marketable products, which exposes us to unforeseen risks and makes it difficult for us to predict the time and cost of product development and potential for regulatory approval, and we may not be successful in our efforts to use and expand our technology platforms to build a pipeline of product candidates.

We are seeking to identify and develop a broad pipeline of product candidates using our *in vivo* and *ex vivo* cell engineering platforms. We have not commenced clinical trials for any product candidates developed with these platforms. The scientific research that forms the basis of our efforts to develop product candidates with our platforms is still ongoing. We are not aware of any FDA approved therapeutics utilizing fusogen technology or that are iPSC-derived cell products. Further, the scientific evidence to support the feasibility of developing therapeutic treatments based on our platforms is both preliminary and limited. As a result, we are exposed to a number of unforeseen risks, and it is difficult to predict the types of challenges and risks that we may encounter during development of our product candidates. For example, we have not tested our cell engineering platforms on all pluripotent and differentiated cell types or in all microenvironments, so results from one cell type or microenvironment may not translate into other cells types or microenvironments. Also, we have not tested any of the product candidates that we are developing using our cell engineering platforms in humans, and our current data is limited to animal models and preclinical cell lines, the results of which may not translate into humans. Further, relevant animal models and assays may not accurately predict the safety and efficacy of our product candidates in humans, and we may encounter significant challenges creating appropriate models and assays for demonstrating the safety and purity of our product candidates. In addition, our fusogen and hypoimmune technologies have potential safety risks related to, but not limited to, genotoxicity associated with the delivery of genome modifying payloads. For example, DNA sequences that randomly integrate into a cell's DNA may increase risk for or cause certain cancers. Alternatively, targeted gene-editing approaches may edit the genome at sites other than the targeted DNA or cause DNA rearrangements, each of which may have oncogenic or other adverse effects. Furthermore, our hypoimmune technology has potential safety risks related to, but not limited to, the potential risk of a hypoimmune cell becoming infected with a virus or undergoing oncogenic transformation. Also, our stem cell-based product candidates have potential safety risks related to, but not limited to, the potential risk of insufficient cell differentiation leading to oncogenic transformations or other adverse effects. As a result, it is possible that safety events or concerns could negatively affect the development of our product candidates, including adversely affecting patient enrollment in future clinical trials of our product candidates among the patient populations that we intend to treat.

Given the novelty of our technologies, we intend to work closely with the FDA and comparable foreign regulatory authorities to perform the requisite scientific analyses and evaluation of our methods to obtain regulatory approval for our product candidates; however, due to a lack of comparable experiences, the regulatory pathway with the FDA and comparable regulatory authorities may be more complex and time-consuming relative to more well-known therapeutics. Even if we obtain human data to support our product candidates, the FDA or comparable foreign regulatory agencies may lack experience in evaluating the safety and efficacy of our product candidates that we develop using our platforms, which could result in a longer than expected regulatory review process, increase our expected development costs, and delay or prevent commercialization of our product candidates. The validation process takes time and resources, may require independent third-party analyses, and may not be accepted or approved by the FDA or comparable foreign regulatory authorities. We cannot be certain that our approach will lead to the development of approvable or marketable products, alone or in combination with other therapies.

Additionally, a key element of our strategy is to use and expand our *in vivo* and *ex vivo* cell engineering platforms to build a pipeline of product candidates and progress those product candidates through clinical development for the treatment of a variety of different types of diseases. Although our research and development efforts to date have been focused on identifying a pipeline of product candidates directed at various disease types, we may not be able to develop product candidates that are safe and effective. Even if we are successful in building our pipeline, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to be approvable or marketable products that will receive marketing approval and achieve market acceptance. If we do not continue to successfully develop, get approval for and begin to commercialize any product candidates, we will face difficulty in obtaining product revenue in future periods, which could result in significant harm to our financial position and adversely affect our share price.

If we are unable to successfully identify, develop, and commercialize any product candidates, or experience significant delays in doing so, our business, financial condition, and results of operations will be materially adversely affected.

Our ability to generate revenue from sales of any of our product candidates, which we do not expect will occur for at least the next several years, if ever, will depend heavily on the successful identification, development, regulatory approval and eventual commercialization of any product candidates, which may never occur. We have never generated revenue from sales of any products, and we may never be able to develop, obtain regulatory approval for or commercialize a marketable product. We are in preclinical development, and all of our product candidates will require significant clinical development; management of preclinical, clinical and manufacturing activities; regulatory approval in multiple jurisdictions; establishing manufacturing supply, including commercial manufacturing supply; and require us to build a commercial organization and make substantial investment and significant marketing efforts before we generate any revenue from product sales. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates.

The successful development of our product candidates will depend on several factors, including the following:

- successful and timely completion of preclinical studies and clinical trials for which the FDA, and any comparable foreign regulatory authority, agree with the design, endpoints, and implementation;
- sufficiency of our financial and other resources to complete the necessary preclinical studies and clinical trials;
- receipt of regulatory approvals or authorizations for conducting future clinical trials;
- initiation and successful patient enrollment in, and completion of, clinical trials on a timely basis;
- our ability to demonstrate to the satisfaction of the FDA or any comparable foreign regulatory authority that the applicable product candidate is safe and efficacious as a treatment for our targeted indications or, in the case of an applicable product candidate which is regulated as a biological product, that the applicable product has suitable purity and is safe and potent for our targeted indications;
- our ability to demonstrate to the satisfaction of the FDA or any comparable foreign regulatory authority that the applicable product candidate's risk-benefit ratio for its proposed indication is acceptable;
- timely receipt of marketing approvals for our product candidates from applicable regulatory authorities;
- ability to address any potential interruptions or delays resulting from factors related to the COVID-19 pandemic;
- the extent of any required post-marketing approval commitments to applicable regulatory authorities; and
- ability to establish, scale up and scale out, either alone or with third-party manufacturers, manufacturing capabilities of clinical supply for our clinical trials and commercial manufacturing (including licensure), if any of our product candidates are approved.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully develop and commercialize our product candidates, which would materially adversely affect our business, financial condition, and results of operations.

Additionally, clinical or regulatory setbacks to other companies developing similar products or within adjacent fields, including those in gene editing and gene therapy and allogenic cell-based therapies, may impact the clinical development of and regulatory pathway for our current or future product candidates, or may negatively impact the perceptions of value or risk of our technologies.

We expect to continue to expand our development and regulatory capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We have experienced rapid growth since our inception in July 2018. As of June 30, 2021, we had 321 full-time employees. We expect continued growth in the number of our employees and the scope of our operations, particularly as we advance our IND-enabling studies, establish regulatory, quality, and clinical operations, and continue to establish supply chain logistics and manufacturing.

To manage our anticipated future growth, we will continue to implement and improve our managerial, operational, and financial systems, expand our facilities, and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the complexity in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. In addition, we have limited experience in managing the manufacturing processes necessary for making cell and gene therapies. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

In addition, future growth imposes significant added responsibilities on members of management, including: identifying, recruiting, integrating, maintaining, and motivating additional employees; managing our internal development efforts effectively, including the clinical and FDA review process for our product candidates, while complying with our contractual obligations to third parties; and improving our operational, financial and management controls, reporting systems, and procedures.

We currently rely on third-party service providers, advisors, and consultants to provide certain services, including strategic, financial, business development, and research and development services, as well as certain aspects of regulatory approval and manufacturing. There can be no assurance that the services of such third-party service providers, advisors, and consultants will continue to be available to us on a timely basis when needed, or that we can find qualified replacements. In addition, if we are unable to effectively manage our outsourced activities or if the quality or accuracy of the services provided by such third-party service providers, advisors or consultants is compromised for any reason, our clinical trials may be extended, delayed, or terminated, and we may not be able to obtain regulatory approval of our product candidates or otherwise advance our business. There can be no assurance that we will be able to manage our existing third-party service providers, advisors or consultants or find other competent third-party service providers, advisors or consultants on reasonable terms, or at all.

The ongoing COVID-19 pandemic could materially and adversely affect our preclinical studies and development, any clinical trials we subsequently commence, and our business, financial condition, and results of operations.

In March 2020, the World Health Organization declared COVID-19 a global pandemic, and the United States declared a national emergency with respect to COVID-19. In response to the COVID-19 pandemic, “shelter in place” orders and other public health guidance measures have periodically been implemented across much of the United States, including in the locations of our offices and those of key vendors and partners. As a result of the COVID-19 pandemic, or similar pandemics, and related “shelter in place” orders and other public health guidance measures, we have and may in the future experience disruptions that could materially and adversely impact our preclinical studies and development, any clinical trials we subsequently commence, and our business, financial condition, and results of operations. In response to the spread of COVID-19, we have closed our executive offices with our administrative employees continuing their work outside of our offices and limited the number of staff in any given research and development laboratory and have taken other precautionary measures as well, including the periodic testing of our employees. We also established a cross-functional task force and implemented business continuity plans designed to address and mitigate the impact of the ongoing COVID-19 pandemic on our business. Potential disruptions to our preclinical development efforts include, but are not limited to:

- delays or disruptions in preclinical experiments and IND-enabling studies due to restrictions of on-site staff, limited or no access to animal facilities, and unforeseen circumstances at contract research organizations (CROs) and vendors;
- limitations on employee or other resources that would otherwise be focused on the conduct of our preclinical work and any clinical trials we subsequently commence, including because of sickness of employees or their families, the desire of employees to avoid travel or contact with large groups of people, an increased reliance on working from home, school closures, or mass transit disruptions;
- delays in necessary interactions with regulators, ethics committees, and other important agencies and contractors due to limitations in employee resources or forced furlough of government or contractor personnel; and
- limitations in maintaining our corporate culture that facilitates the transfer of institutional knowledge within our organization and fosters innovation, teamwork, and a focus on execution.

We have experienced delays in the procurement of certain laboratory supplies, such as cell culture plasticware and single use containers, as a result of increased demand due to ramp up of COVID-19 research and manufacturing, government-mandated allocation of materials for COVID-19 research and manufacturing, and delays in vendors increasing manufacturing capacity to address increased demand.

We have not yet commenced clinical trial activities for any of our product candidates. If we commence clinical trials for one or more of our product candidates, potential disruptions of those clinical trials as a result of COVID-19 or similar pandemics may include, but are not limited to:

- interruption of key clinical trial activities, such as clinical trial site data monitoring and efficacy, safety and translational data collection, processing and analyses, due to limitations on travel imposed or recommended by federal, state, or local governments, employers and others or interruption of clinical trial subject visits, which may impact the collection and integrity of subject data and clinical study endpoints;
- delays or difficulties in initiating or expanding clinical trials, including delays or difficulties with clinical site initiation and recruiting clinical site investigators and clinical site staff;
- delays or difficulties in enrolling and retaining patients in our clinical trials;
- increased rates of patients withdrawing from our clinical trials following enrollment as a result of contracting COVID-19, developing other health conditions or being forced to quarantine;
- interruption of, or delays in receiving, supplies of our product candidates from our contract manufacturing organizations due to staffing shortages, production slowdowns, or stoppages and disruptions in delivery systems with respect to materials and reagents;
- diversion of healthcare resources away from the conduct of our clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of our clinical trials;
- interruption or delays in the operations of the FDA and comparable foreign regulatory agencies;
- changes in regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted, which may result in unexpected costs, or to discontinue the clinical trials altogether;
- delays in receiving approval from local regulatory authorities to initiate our planned clinical trials;
- limitations on employee resources that would otherwise be focused on the conduct of our preclinical studies and clinical trials, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people; and
- additional delays, difficulties or interruptions as a result of current or future shutdowns due to the COVID-19 pandemic in countries where we or our third-party service providers operate.

The COVID-19 global pandemic continues to rapidly evolve. Although many countries, including certain countries in Europe and the United States, have re-opened, rises in new cases have caused certain countries to re-initiate restrictions. The extent to which the COVID-19 pandemic may affect our preclinical studies, clinical trials, business, financial condition, and results of operations will depend on future developments, which are highly uncertain and cannot be predicted at this time, such as the geographic spread of the disease, the duration of the pandemic, travel restrictions, actions to contain the pandemic or reduce its impact in the United States and other countries, such as required social distancing, quarantines or lock-downs, business closures, or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. Additionally, we are unable to predict if a different pandemic could have similar or different impacts on our business, financial condition, or share price. Future developments in these and other areas present material uncertainty and risk with respect to our clinical trials, business, financial condition, and results of operations.

Our ability to develop our cell engineering platforms and products and our future growth depends on retaining our key personnel and recruiting additional qualified personnel.

Our success depends upon the continued contributions of our key management, scientific, and technical personnel, many of whom have been instrumental for us and have substantial experience with our cell engineering platforms, underlying technologies, and related product candidates. Given the specialized nature of our *in vivo* and *ex vivo* cell engineering and the fact that these are novel and emerging fields, there is an inherent scarcity of experienced personnel in these fields. As we continue developing our product candidates in our pipeline, we will require personnel with medical, scientific, or technical qualifications specific to each program. The loss of key managers and senior scientists could delay our research and development activities. Despite our efforts to retain valuable

employees, members of our management, scientific, and development teams may terminate their employment with us on short notice. Although we have employment agreements with certain of our key employees, these employment agreements provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. If our retention efforts are unsuccessful in the future, it may be difficult for us to implement our business strategy, which could have a material adverse effect on our business.

Further, certain of our key employees, including Drs. Fry, Goldman and Murry, retain partial employment at academic institutions; Dr. Goldman currently devotes approximately 60% of his time to the University of Rochester and the University of Copenhagen, Dr. Murry currently devotes approximately 25% to his time to the University of Washington, and Dr. Fry currently devotes approximately 25% of his time to the University of Colorado until August 2022 when Dr. Fry plans to devote 100% of his time to us. These arrangements may expose us to increased potential for these individuals to return to their academic positions full-time or devote less of their attention to us than is optimal, and, potentially, expose us to claims of intellectual property ownership or co-ownership by the respective academic institutions.

The competition for qualified personnel in the biotechnology and pharmaceutical industries is intense, and our future success depends upon our ability to attract, retain, and motivate highly skilled scientific, technical, and managerial employees. Specifically, our research and development programs, clinical operations and sales and marketing efforts depend on our ability to attract and retain highly skilled scientists, engineers and sales professionals. We face competition for personnel from other companies, universities, public and private research institutions, and other organizations. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications on acceptable terms, or at all. Many of the companies with which we compete for experienced personnel have greater resources than we do, and any of our employees may terminate their employment with us at any time. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources and, potentially, damages. In addition, job candidates and existing employees often consider the value of the stock awards they receive in connection with their employment. If the perceived benefits of our stock awards decline, it may harm our ability to recruit and retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects would be harmed.

While we believe our pipeline will yield multiple INDs, we may not be able to file INDs to commence clinical trials on the timelines we expect, and even if we are able to, the FDA may not permit us to proceed.

We expect our pipeline to yield multiple INDs beginning as early as 2022, including INDs for our fusosome CAR T product candidates from our *in vivo* cell engineering platform and our allogeneic CAR T cell product candidates from our *ex vivo* cell engineering platform. We cannot be sure that submission of an IND will result in the FDA allowing testing and clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such clinical trials. The manufacturing of our product candidates, including our CAR T *ex vivo* cell engineering product candidates, remains an emerging and evolving field. Accordingly, we expect chemistry, manufacturing and control related topics, including product specifications, will be a focus of IND reviews, which may delay the clearance of INDs. Additionally, even if such regulatory authorities agree with the design and implementation of the clinical trials set forth in an IND or clinical trial application, we cannot guarantee that such regulatory authorities will not change their requirements in the future.

We may not realize the benefits of technologies that we have acquired, or will acquire in the future, or other strategic transactions that we have or will consummate.

Our *in vivo* and *ex vivo* cell engineering technology represents an aggregation of years of innovation and technology from multiple academic institutions and companies, including our fusogen technology acquired from Cobalt, our *ex vivo* cell engineering programs focused on replacing damaged cells in the heart and certain brain disorders acquired from Cytocardia Inc. (Cytocardia) and Oscine Corp. (Oscine), respectively, and hypoimmune technology licensed from Harvard and The Regents of the University of California (UCSF), amongst others. Further, a key component of our strategy is to acquire and in-license technologies to support our mission of using engineered cells as medicines. As such, we actively evaluate various strategic transactions on an ongoing basis. We may acquire other businesses, products or technologies, as well as pursue joint ventures or investments in complementary businesses. The success of our strategic transactions, including any future strategic transactions, depends on the risks and uncertainties involved, including:

- unanticipated liabilities related to acquired companies or joint ventures;
- difficulties integrating acquired personnel, technologies, and operations into our existing business;
- retention of key employees;
- diversion of management time and focus from operating our business to management of acquisition and integration efforts, strategic alliances or joint ventures challenges;

- increases in our expenses and reductions in our cash available for operations and other uses;
- disruption in our relationships with collaborators or suppliers as a result of such transactions;
- possible write-offs or impairment charges relating to acquired businesses or joint ventures; and
- challenges resulting from the COVD-19 pandemic making it more difficult to integrate acquired businesses into our business.

If any of these risks or uncertainties occur, we may not realize the anticipated benefit of any acquisition or strategic transaction. Additionally, foreign acquisitions and joint ventures are subject to additional risks, including those related to integration of operations across different cultures and languages, currency risks, potentially adverse tax consequences of overseas operations, and the particular economic, political and regulatory risks associated with specific countries.

Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, or require us to incur debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition.

Though many of our personnel have significant experience with respect to manufacturing biopharmaceutical products, we, as a company, do not have experience in developing or maintaining a manufacturing facility. There can be no assurance that we will be able to maintain a compliant facility and manufacture our product candidates as intended, given the complexity of manufacturing novel therapeutics. If we fail to successfully operate our facility, this could adversely affect our clinical trials and the commercial viability of our product candidates.

The manufacture of biopharmaceutical products is complex and requires significant expertise, including the development of advanced manufacturing techniques and process controls. Manufacturers of *ex vivo* cell engineering products often encounter difficulties in production, particularly in scaling up, scaling out, validating initial production, ensuring the absence of contamination, and ensuring process robustness after initial production. These problems include difficulties with production costs and yields, quality control, including stability of the product, quality assurance testing, operator error, shortages of qualified personnel, as well as compliance with strictly enforced federal, state, and foreign regulations. As a result of the complexities, the cost to manufacture biologics in general, and our cell-based product candidates in particular, is generally higher than traditional small molecule chemical compounds, and the manufacturing process is less reliable and is more difficult to reproduce. The application of new regulatory guidelines or parameters, such as those related to control strategy testing, may also adversely affect our ability to manufacture our product candidates.

We are investing early in building world class capabilities in key areas of manufacturing sciences and operations, including development of our *in vivo* and *ex vivo* cell engineering platforms, product characterization, and process analytics from the time candidates are in early research phases. Our investments also include scaled research solutions, scaled infrastructure, and novel technologies to improve efficiency, characterization, and scalability of manufacturing. However, we have limited experience in managing the manufacturing processes necessary for making cell and gene therapies. We cannot be sure that the manufacturing processes employed by us or the technologies that we incorporate for manufacturing will result in viable or scalable yields of *in vivo* and *ex vivo* cell engineering product candidates that will be safe, be effective, and meet market demand.

A key to our strategy is operating our own manufacturing facility. Accordingly, in July 2021, we entered into a long-term lease to establish and operate our own good manufacturing practices (GMP) manufacturing facility to support our late-stage clinical development and early commercial product candidates across our product portfolio, including with respect to the production of allogeneic T cells, viral vectors, and pluripotent stem cell-derived products. We expect that it will take several years before we are able to begin manufacturing our product candidates at this facility, if at all. Designing and building out our manufacturing facility will be time-consuming and will require significant resources, including a reallocation of certain of our resources, including the time and attention of our senior management. In addition, given the volatility in the costs of building materials, building out our manufacturing facility may be more expensive than we expect. We do not have experience as a company in developing a manufacturing facility, and we may experience unexpected costs or delays or be unsuccessful in developing our internal manufacturing capability in time to support registration-enabling clinical trials of our product candidates or at all. In order to build out the facility, we will need to engage third party service providers and obtain equipment and third-party technology necessary to manufacture our product candidates at the facility; however, we may not be able to negotiate agreements with third parties or access necessary technologies on commercially reasonable terms or at all. Moreover, there is no guarantee that the industrial space that we are leasing to develop our manufacturing facility will not change ownership over the term of the lease or be subject to additional zoning or other restrictions, and that, in such an event, we will be able to continue to build or operate our manufacturing facility without further delay or cost. In addition, operating our facility will require us to continue to hire and retain experienced scientific, quality control, quality assurance and manufacturing personnel. As described elsewhere in these Risk Factors, competition for qualified personnel in the biotechnology and pharmaceutical industries is intense, and if we fail to attract qualified personnel or retain and motivate our current personnel, we will not be able to operate our facility, and our business and future growth prospects would be harmed.

Until we are able to begin manufacturing our product candidates at our facility, we will rely on third-party contract manufacturers to manufacture our product candidates for preclinical and clinical testing. Once we have completed the build-out of our manufacturing facility, we will be required to transition manufacturing processes and know-how of our product candidates from our contract manufacturers to our facility. Transferring manufacturing processes and know-how is complex and involves review and incorporation of both documented and undocumented processes that may have evolved over time. In addition, transferring production to our facility may require utilization of new or different processes to meet the requirements of our facility. Additional studies may also need to be conducted to support the transfer of certain manufacturing processes and process improvements. We cannot be certain that all relevant know-how and data has been adequately incorporated into the manufacturing process until the completion of studies and evaluations intended to demonstrate the comparability of material previously produced by our contract manufacturers with that generated by our facility.

Operating our manufacturing facility will require us to comply with complex regulations. Moreover, our manufacturing facility, and any future commercial manufacturing facilities we may build, will require FDA or comparable foreign regulatory authority approval, which we may not obtain in time to support registration-enabling clinical trials for our product candidates, if at all. Even if approved, we would be subject to ongoing periodic unannounced inspection by the FDA, the Drug Enforcement Administration, corresponding state agencies, and comparable foreign regulatory authority to ensure strict compliance with current GMPs (cGMPs), current good tissue practices (cGTPs) and other government regulations. We also may make changes to our manufacturing process at various points during development, and even after commercialization, for various reasons, such as controlling costs, achieving scale, decreasing processing time, increasing manufacturing success rate, or other reasons. Such changes carry the risk that they will not achieve their intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of our ongoing clinical trials, future clinical trials, or the performance of the product, once commercialized. In some circumstances, changes in the manufacturing process may require us to perform comparability studies and to collect additional data from patients prior to undertaking more advanced clinical trials. For instance, changes in our process during the course of clinical development may require us to show the comparability of the product used in earlier clinical phases or at earlier portions of a trial to the product used in later clinical phases or later portions of the trial. We may also make further changes to our manufacturing process before or after commercialization, and such changes may require us to show the comparability of the resulting product to the product used in the clinical trials using earlier processes. We may be required to collect additional clinical data from any modified process prior to obtaining marketing approval for the product candidate produced with such modified process. If clinical data are not ultimately comparable to that seen in the earlier trials in terms of safety or efficacy, we may be required to make further changes to our process and/or undertake additional clinical testing, either of which could significantly delay the clinical development or commercialization of the associated product candidate.

Furthermore, if contaminants are discovered in our supply of product candidates or in our manufacturing facility, or any future manufacturing facilities, such supply may have to be discarded and our manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. We cannot assure you that any stability or other issues relating to the manufacture of our product candidates will not occur in the future. We may not be able to manufacture our product candidates as a result of not meeting regulatory requirements and may not be able to scale up or scale out our manufacturing to meet market demand. Any failure or delay in the development of our manufacturing capabilities could adversely impact the development of our product candidates.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs, therapeutic platforms, and product candidates that we identify for specific indications. Additionally, we have contractual commitments under our collaboration agreements to use commercially reasonable efforts to develop certain programs and, thus, do not have unilateral discretion to vary from such agreed upon efforts. In addition, we have contractual commitments to conduct certain development plans, and thus may not have discretion to modify such development plans, including clinical trial designs, without agreement from our collaboration partners. As a result, we may forego or delay pursuit of opportunities with other therapeutic platforms or product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs, therapeutic platforms, and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing, or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights.

The use of human stem cells exposes us to a number of risks in the development of our human stem cell-derived products, including restrictions on the use of human stem cells, as well as ethical, legal and social implications of research on the use of stem cells, any of which could prevent us from completing the development or gaining acceptance for commercially viable products derived from human stem cells.

We use human stem cells in our research and development, including embryonic stem cells (ESCs), and one or more of our *ex vivo* cell engineering product candidates may be derived from human stem cells. The use of such cells in our research, or as starting cell lines in the manufacture of one or more of our product candidates, exposes us to a number of risks. These risks include securing sufficient and viable stem cells as starting material, potential difficulties in recruiting patients for our trials, as well as managing a multitude of legal and regulatory restrictions on the sourcing and use of these cells. In particular, in some states, use of embryonic tissue as a source of stem cells is prohibited and many research institutions have adopted policies regarding the ethical use of human embryonic tissue. If these policies or restrictions have the effect of limiting the scope of research we can conduct using stem cells, our ability to develop our *ex vivo* cell engineering product candidates may be impaired, and this could have an adverse material effect on our business. Further, the use of stem cells, and particularly embryonic stem cells, has social, legal and ethical implications. Certain political and religious groups continue to voice opposition to the use of human stem cells in drug research, development, and manufacture. Adverse publicity due to ethical and social controversies surrounding the use of stem cells could lead to negative public opinion, difficulties enrolling patients in our clinical trials, increased regulation and stricter policies regarding the use of such cells, which could harm our business and may limit market acceptance of our product candidates. In addition, clinical experience with stem cells, including induced pluripotent stem cells (iPSCs) and ESCs, is limited. We are not aware of any products that utilize iPSCs or ESCs as a starting material that have received marketing approval from the FDA or a comparable foreign regulatory body. Therefore, patients in our clinical trials may experience unexpected side effects and we may experience unexpected regulatory delays prior to approval, or after regulatory approval, if an approval were to occur. Furthermore, our *ex vivo* stem cell-derived products will rely on starting materials donated by human sources. If the consent, authorization or process for the donation of those materials is not obtained or conducted in accordance with applicable legal, ethical or regulatory requirements, we could face delays in the clinical testing and approval of these products, or, potentially, we could face claims by such human sources, which could expose us to damages.

Negative public opinion and increased regulatory scrutiny of research and therapies involving gene editing or other in vivo or ex vivo cell engineering technologies may damage public perception of our product candidates or adversely affect our ability to conduct our business or obtain regulatory approvals for our product candidates.

Certain aspects of our cell engineering platforms rely on the ability to edit genes. Public perception may be influenced by claims that gene editing is unsafe, and products incorporating gene editing may not gain the acceptance of the public or the medical community. In particular, our success will depend upon physicians specializing in our targeted diseases prescribing our product candidates as treatments in lieu of, or in addition to, existing, more familiar, treatments for which greater clinical data may be available. Any increase in negative perceptions of gene editing may result in fewer physicians prescribing our treatments or may reduce the willingness of patients to utilize our treatments or participate in clinical trials for our product candidates. In addition, given the novel nature of *in vivo* and *ex vivo* cell engineering technologies, governments may place import, export or other restrictions in order to retain control or limit the use of such technologies. Increased negative public opinion or more restrictive government regulations, either in the United States or internationally, would have a negative effect on our business or financial condition and may delay or impair the development and commercialization of our product candidates or demand for such product candidates.

Risks Related to the Development and Clinical Testing of Our Product Candidates

Our product candidates must successfully progress through extensive preclinical studies and clinical trials in order to obtain regulatory approval to market and sell such product candidates. Even if we obtain positive results in preclinical studies of a product candidate, these results may not be predictive of the results of future preclinical studies or clinical trials.

To obtain the requisite regulatory approvals to market and sell any of our product candidates, we or any collaborator for such product candidate must demonstrate through extensive preclinical studies and clinical trials that the product candidate is safe, pure, and potent in humans. Before an IND can be submitted to the FDA and become effective, which is a prerequisite for conducting clinical trials on human subjects, a product candidate must successfully progress through extensive preclinical studies, which include preclinical laboratory testing, animal studies, and formulation studies in accordance with good laboratory practices (GLP).

Success in preclinical studies does not ensure that later preclinical studies or clinical trials will be successful. A number of companies in the biotechnology and pharmaceutical industries have suffered significant setbacks in clinical trials, even after positive results in preclinical studies. These setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway and safety or efficacy observations made during the course of clinical trials, including previously unreported adverse events. The design of a clinical trial can determine whether its results will support approval of a product, and flaws in the design of a clinical trial may not become apparent until the clinical trial is well advanced. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Notwithstanding any potential promising results in earlier studies, we cannot be

certain that we will not face similar setbacks. In addition, the results of our preclinical animal studies, including our non-human primate studies, may not be predictive of the results of subsequent clinical trials on human subjects. Product candidates may fail to show the desired pharmacological properties or safety and efficacy traits in clinical trials despite having progressed through preclinical studies.

If we fail to obtain positive results in preclinical studies or clinical trials of any product candidate, the development timeline and regulatory approval and commercialization prospects for that product candidate, and, correspondingly, our business and financial prospects, would be negatively impacted.

All of our product candidates are in preclinical development and none have commenced clinical development. Preclinical and clinical drug development is a lengthy and expensive process with uncertain timelines and uncertain outcomes. If preclinical studies or clinical trials of a product candidate are prolonged or delayed, we may be unable to obtain required regulatory approvals, and therefore be unable to commercialize our product candidates on a timely basis or at all.

Preclinical studies and clinical testing are expensive, can take many years to complete, and their outcomes are inherently uncertain. Failure can occur at any time during this process. Product candidates in later stages of clinical trials may fail to produce the same results or to show the desired safety and efficacy traits despite having progressed through preclinical studies and earlier clinical trials. Our future clinical trials may not be successful.

Additionally, some of our trials may be open-label trials in which both the patient and investigator know whether the patient is receiving the investigational product candidate or an existing approved therapy. Open-label clinical trials are subject to various limitations that may exaggerate any therapeutic effect, as patients in open-label clinical trials are aware when they are receiving treatment. In addition, open-label clinical trials may be subject to an "investigator bias" where those assessing and reviewing the physiological outcomes of the clinical trials are aware of which patients have received treatment and may interpret the information of the treated group more favorably given this knowledge. Therefore, it is possible that positive results observed in open-label trials will not be replicated in later placebo-controlled trials.

To date, we have not commenced any clinical trials required for the approval of a product candidate. We do not know whether planned clinical trials will begin on time, need to be redesigned, enroll patients on time, or be completed on schedule, if at all. Clinical trials can be delayed, suspended, or terminated for a variety of reasons, including the following:

- delays in or failure to obtain regulatory authorization to commence a trial;
- delays in or failure to obtain institutional review board, or IRB, approval at each site;
- delays in or failure to reach agreement on acceptable terms, or at all, with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- difficulty in recruiting clinical trial investigators of appropriate competencies and experience;
- lack of sufficient availability of donor material suitable from eligible and qualified donors for certain of our product candidates for the manufacture of product candidates from our *ex vivo* cell engineering platform;
- delays in establishing the appropriate dosage levels in clinical trials;
- delays in or failure to recruit and enroll suitable patients to participate in a trial, particularly considering study inclusion and exclusion criteria and patients' prior lines of therapy and treatment;
- the difficulty in certain countries in identifying the sub-populations that we are trying to treat in a particular trial, which may delay enrollment and reduce the power of a clinical trial to detect statistically significant results;
- lower than anticipated retention rates of patients in clinical trials;
- failure to have patients complete a trial or return for post-treatment follow-up;
- clinical sites deviating from trial protocol or dropping out of a trial;
- delays adding new investigators or clinical trial sites;
- safety or tolerability concerns that could cause us or governmental authorities, as applicable, to suspend or terminate a trial, including if participants are being exposed to unacceptable health risks or experiencing undesirable side effects or there are other unfavorable characteristics of the product candidate or if such undesirable effects or risks are found to be caused by a chemically or mechanistically similar therapeutic or therapeutic candidate;
- our third-party research contractors failing to comply with regulatory requirements or meet their contractual obligations to us in a timely manner or at all;

- changes in regulatory requirements, policies, and guidelines;
- inability to manufacture sufficient quantities of a product candidate for use in clinical trials;
- the quality or stability of a product candidate falling below acceptable standards;
- changes in the treatment landscape for our target indications that may make our product candidates no longer relevant;
- third-party actions claiming infringement by our product candidates outside the United States and obtaining injunctions interfering with our progress; and
- business interruptions resulting from geo-political actions, including war and terrorism, natural disasters including earthquakes, typhoons, floods, and fires, or disease, including the COVID-19 pandemic.

In addition, disruptions caused by the COVID-19 pandemic may increase the likelihood that we encounter such difficulties or delays in initiating, enrolling, conducting, or completing our planned clinical trials. Moreover, while we plan to submit INDs for our potential product candidates, we may not be able to file such INDs on the timeline we expect. For example, we may experience manufacturing delays, including due to challenges associated with scaling up our manufacturing process, or other delays with IND-enabling preclinical studies. Moreover, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that suspend or terminate such clinical trials. Additionally, even if such regulatory authorities agree with the design and implementation of the clinical trials set forth in an IND, we cannot guarantee that such regulatory authorities will not change their requirements in the future. These considerations also apply to new clinical trials we may submit as amendments to existing INDs.

Clinical trials must be conducted in accordance with the FDA and comparable foreign regulatory authorities' legal requirements, regulations or guidelines and are subject to oversight by these governmental agencies and IRBs or Ethics Committees at the medical institutions where the clinical trials are conducted. We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs or Ethics Committees of the institutions at which such trial is being conducted, by the Data Review Committee or Data Safety Monitoring Board for such trial or by the FDA or comparable foreign regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or comparable foreign regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions, or lack of adequate funding to continue the clinical trial. If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, delay our ability to obtain regulatory approval for such product candidate, and jeopardize our ability to commence product sales and generate revenues. Significant clinical trial delays could also allow our competitors to bring products to market before we do or shorten any periods during which we have the exclusive right to commercialize our product candidates, thereby impairing our ability to commercialize our product candidates, and may harm our business and results of operations.

In addition, clinical trials must be conducted with supplies of our product candidates produced under cGMP and, if applicable, cGTP requirements and other regulations. Furthermore, we will rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials in compliance with good clinical practice (GCP) requirements; however, while we will enter into agreements governing their conduct, we will have limited influence over their actual performance. To the extent the CROs and clinical trial sites fail to enroll participants for our clinical trials, fail to conduct such clinical trials in accordance with GCP, or experience significant delays in the execution of trials, including delays in achieving full enrollment, we may experience increased costs, program delays, or both, which may harm our business. In addition, clinical trials that are conducted in countries outside the United States may subject us to further delays and expenses as a result of increased shipment and distribution costs, additional regulatory requirements, and the engagement of non-U.S. CROs, as well as expose us to risks associated with clinical investigators who are unknown to the FDA, and different standards of diagnosis, screening, and medical care.

Our clinical trials may fail to demonstrate substantial evidence of the safety and efficacy of our product candidates or any future product candidates, which would prevent or delay or limit the scope of regulatory approval and commercialization.

To obtain the requisite regulatory approvals to market and sell any of our product candidates and any other future product candidates, we must demonstrate through clinical trials that our product candidates are safe and effective for use in each targeted indication. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical development process. Most product candidates that begin clinical trials are never approved by regulatory authorities for commercialization. We may be unable to establish clinical endpoints that applicable regulatory authorities would consider clinically meaningful, and a clinical trial can fail at any stage of testing.

Further, the process of obtaining regulatory approval is expensive, often takes many years following the commencement of clinical trials, and can vary substantially based upon the type, complexity, and novelty of the product candidates involved, as well as the target indications, patient population, and regulatory agency. Prior to obtaining approval to commercialize our product candidates and any future product candidates in the United States or abroad, we or our potential future collaborators must demonstrate with substantial evidence from adequate and well-controlled clinical trials, and to the satisfaction of the FDA or comparable foreign regulatory authorities, that such product candidates are safe and effective for their intended uses.

Clinical trials that we conduct may not demonstrate the efficacy and safety necessary to obtain regulatory approval to market our product candidates. In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the clinical trial protocols, and the rate of dropout among clinical trial participants. If the results of our ongoing or future clinical trials are inconclusive with respect to the efficacy of our product candidates, if we do not meet the clinical endpoints with statistical and clinically meaningful significance, or if there are safety concerns associated with our product candidates, we may be delayed in obtaining marketing approval, if we obtain it at all. Additionally, any safety concerns observed in any one of our clinical trials in our targeted indications could limit the prospects for regulatory approval of our product candidates in those and other indications.

Even if the trials are successfully completed, clinical data are often susceptible to varying interpretations and analyses, and we cannot guarantee that the FDA or comparable foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. We cannot guarantee that the FDA or comparable foreign regulatory authorities will view our product candidates as having efficacy even if positive results are observed in clinical trials. The FDA or comparable foreign regulatory authorities may not agree with our manufacturing strategy or find comparability between our clinical trial product candidates and proposed commercial product candidates even if positive results are observed in clinical trials, which may result in regulatory delays or a need to perform additional clinical studies. Moreover, results acceptable to support approval in one jurisdiction may be deemed inadequate by another regulatory authority to support regulatory approval in that other jurisdiction. To the extent that the results of our trials are not satisfactory to the FDA or comparable foreign regulatory authorities for support of a marketing application, approval of our product candidates and any future product candidates may be significantly delayed, or we may be required to expend significant additional resources, which may not be available to us, to conduct additional trials in support of potential approval of our product candidates. Even if regulatory approval is secured for a product candidate, the terms of such approval may limit the scope and use of the specific product candidate, which may also limit its commercial potential.

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

From time to time, we may publicly disclose interim, topline, or preliminary data from our preclinical studies and clinical trials, which are based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular study or trial. We also make assumptions, estimations, calculations, and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. Further, modifications or improvements to our manufacturing processes for a product candidate may result in changes to the characteristics or behavior of the product candidate that could cause our product candidate to perform differently and affect the results of our ongoing clinical trials of such product candidate. As a result, the topline results that we report may differ from future results of the same studies, or different conclusions or considerations may qualify such results once additional data have been received and fully evaluated. Topline data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, topline data should be viewed with caution until the final data are available. Similarly, preliminary or interim data from clinical trials are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects. Additionally, disclosure of preliminary or interim data by us or by our competitors could result in volatility in the price of our common stock.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions, or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate, and our company in general. If the interim, topline, or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, any of our potential product candidates may be harmed, which could harm our business, operating results, prospects, or financial condition.

Our product candidates may have serious adverse, undesirable, or unacceptable side effects or other properties that may delay or prevent marketing approval. If such side effects are identified following marketing approval, if obtained, the commercial profile of any approved label may be limited, or we may be subject to other significant negative consequences following marketing approval, if obtained.

Undesirable side effects that may be caused by our product candidates could cause us or regulatory authorities to interrupt, delay, or halt our clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign authorities. We have not commenced clinical trials for any of our product candidates, and we do not have any clinical data to fully anticipate their side effects. Accordingly, we may observe unexpected side effects and/or higher levels of known side effects in clinical trials of our product candidates, including adverse events known in the same classes of therapeutics. These include the potential for, among others, infusion reaction, cytokine release syndrome (CRS), graft-versus-host disease (GvHD), neurotoxicities and certain cancers.

Results of our clinical trials could reveal a high and unacceptable severity and prevalence of these or other side effects. In such an event, our clinical trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the clinical trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition, and prospects significantly.

Further, clinical trials by their nature utilize a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our product candidates may only be uncovered with a significantly larger number of patients exposed to the product candidate.

In the event that any of our product candidates receives marketing approval and we or others later identify undesirable or unacceptable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw or limit approvals of such products and require us to take such approved products off the market;
- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies, or issue other communications containing warnings or other safety information about the product;
- regulatory authorities may require a medication guide outlining the risks of such side effects for distribution to patients, or that we implement a risk evaluation and mitigation strategy (REMS) plan to ensure that the benefits of the product outweigh its risks;
- we may be required to change the dose or the way the product is administered, conduct additional clinical trials, or change the labeling of the product;
- we may be subject to limitations on how we may promote or manufacture the product;
- sales of the product may decrease significantly;
- we may be subject to litigation or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us or our potential future partners from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenue from the sale of any products.

The manufacture of our product candidates is complex. We or our third-party manufacturers may encounter difficulties in production, which could delay or entirely halt our or their ability to supply our product candidates for clinical trials or, if approved, for commercial sale.

Our product candidates are considered to be biologics, and the process of manufacturing biologics is complex and requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. In July 2021, we entered into a long-term lease to establish and operate our own GMP manufacturing facility to support our late-stage clinical development and early commercial product candidates across our product portfolio. However, we expect that it will take several years before we are able to begin manufacturing our product candidates at this facility, if at all. We currently rely, and expect for some period of time to continue to rely, on third-party contract development and manufacturing organizations for the manufacture of our product candidates for preclinical and clinical testing. To date, we and our contract manufacturers have limited experience in

the technology transfer of manufacturing processes from us to our contract manufacturers and the manufacturing of cGMP batches of our product candidates. Our contract manufacturers and we, once we begin to operate our manufacturing facility, must comply with cGMPs, regulations, and guidelines for the manufacturing of biologics used in clinical trials and, if approved, marketed products. To date, we have not scaled the manufacturing process with respect to our product candidates for later-stage clinical trials and commercialization. Larger scale manufacturing will require the development of new processes, including for the removal of impurities that are a normal byproduct of the manufacturing process. The nature of our product candidates requires the development of novel manufacturing processes and analytical technologies, which could cause delays in the scaling of manufacturing, as well as greater costs that could negatively impact the financial viability of our product candidates. We cannot be sure that the manufacturing processes employed by our third-party manufacturers or the technologies that our third-party manufacturers incorporate for manufacturing will result in viable or scalable yields of *in vivo* and *ex vivo* cell engineering product candidates that will be safe and effective and meet market demand.

Once we have completed the build-out of our manufacturing facility, we will be required to transition manufacturing processes and know-how of our product candidates from our contract manufacturers to our facility. Transferring manufacturing processes and know-how is complex and involves review and incorporation of both documented and undocumented processes that may have evolved over time. In addition, transferring production to our facility may require utilization of new or different processes to meet the requirements of our facility. Additional studies may also need to be conducted to support the transfer of certain manufacturing processes and process improvements. We cannot be certain that all relevant know-how and data has been adequately incorporated into the manufacturing process until the completion of studies and evaluations intended to demonstrate the comparability of material previously produced by our contract manufacturers with that generated by our facility.

The process of manufacturing our biologic product candidates is extremely susceptible to product loss due to contamination, equipment failure, or improper installation or operation of equipment, vendor or operator error, inconsistency in yields, variability in product characteristics, and difficulties in scaling the production process. Even minor deviations from normal manufacturing processes could result in reduced production yields, product defects, and other supply disruptions. If microbial, viral, or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, this could lead to withdrawal of our products from clinical trials and the market, and such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination. Moreover, if the FDA or comparable foreign regulatory authorities determine that we or our third-party manufacturers are not in compliance with laws and regulations, including those governing cGMPs, the FDA or comparable foreign regulatory authority may not approve a Biologics License Application (BLA), marketing authorisation application (MAA), or comparable authorization until the deficiencies are corrected or we replace the manufacturer in our applications with a manufacturer that is in compliance. We or third-party manufacturers may not be able to manufacture our product candidates as a result of not meeting regulatory requirements.

Any adverse developments affecting manufacturing operations for our product candidates, if any are approved, may result in shipment delays, inventory shortages, lot failures, product withdrawals or recalls, or other interruptions in the supply of our products. We may also have to take inventory write-offs and incur other charges and expenses for products that fail to meet specifications as a result of defects or storage over an extended period of time, undertake costly remediation efforts, or seek more costly manufacturing alternatives. As part of our process development efforts, we also may make changes to our manufacturing processes at various points during development, for various reasons, such as controlling costs, achieving scale, decreasing processing time, increasing manufacturing success rate, or other reasons. Such changes carry the risk that they will not achieve their intended objectives, and any of these changes could cause our product candidates to perform differently and affect the results of our ongoing clinical trials or future clinical trials. In some circumstances, changes in the manufacturing process may require us to perform comparability studies and to collect additional data from patients prior to undertaking more advanced clinical trials.

We are exposed to a number of risks related to our supply chain for the materials required to manufacture our product candidates.

Manufacturing our product candidates is highly complex and requires sourcing specialty materials. Many of the risks associated with the complexity of manufacturing our final products are applicable to the manufacture and supply of the raw materials. In particular, these starting materials are subject to inconsistency in yields, variability in characteristics, contamination, difficulties in scaling the production process and defects. Similar minor deviations in the manufacturing process for these starting materials could result in supply disruption and reduced production yields for our final product. In addition, we rely on third parties for the supply of these materials exposing us to similar risks of reliance on third parties as described above with respect to the manufacturing and supply of our drug products.

Our manufacturing processes requires many reagents, which are drug substance intermediates used in our manufacturing processes to bring about chemical or biological reactions, and other specialty materials, consumables and equipment, some of which are manufactured or supplied by small companies with limited resources and experience to support commercial biologics production. We currently depend on a limited number of vendors for certain materials and equipment used in the manufacture of our product

candidates. Some of these suppliers may not have the capacity to support commercial products manufactured under cGMP by biopharmaceutical firms or may otherwise be ill-equipped to support our needs. Reagents and other key materials from these suppliers may have inconsistent attributes and introduce variability into our manufactured product candidates, which may contribute to variable patient outcomes and possible adverse events. We also do not have supply contracts with many of these suppliers and may not be able to obtain supply contracts with them on acceptable terms or at all. Accordingly, we may experience delays in receiving key materials and equipment to support clinical or commercial manufacturing.

For some of these reagents, equipment, and materials, we rely and may in the future rely on sole source vendors or a limited number of vendors. An inability to continue to source product from any of these suppliers, which could be due to regulatory actions or requirements affecting the supplier, adverse financial or other strategic developments experienced by a supplier, labor disputes or shortages, unexpected demands, or quality issues, could adversely affect our ability to satisfy demand for our product candidates, which could adversely and materially affect our product sales and operating results or our ability to conduct clinical trials, either of which could significantly harm our business.

Additionally, due to global political, economic and other factors beyond our control, including the ongoing COVID-19 pandemic, there has been, and there may continue to be, a shortage of key materials and equipment that are necessary to manufacture our product candidates, including certain consumables such as bags, flasks and pipette tips. If we or our contract manufacturers are unable to obtain the materials and equipment necessary to manufacture our product candidates, we may experience delays in manufacturing our product candidates, which will harm our ability to conduct clinical trials and commercialize our product candidates in a timely manner or at all.

As we continue to develop and scale our manufacturing process, we expect that we will need to obtain rights to and supplies of certain materials and equipment to be used as part of that process. We may not be able to obtain rights to such materials on commercially reasonable terms, or at all, and if we are unable to alter our process in a commercially viable manner to avoid the use of such materials or find a suitable substitute, it would have a material adverse effect on our business. Even if we are able to alter our process so as to use other materials or equipment, such a change may lead to a delay in our clinical development and/or commercialization plans. If such a change occurs for product candidate that is already in clinical testing, the change may require us to perform both comparability studies and to collect additional data from patients prior to undertaking more advanced clinical trials.

We will depend on enrollment and retention of patients in our clinical trials for our product candidates. If we experience delays or difficulties enrolling or retaining patients in our clinical trials, our research and development efforts and business, financial condition, and results of operations could be materially adversely affected.

Successful and timely completion of clinical trials will require that we enroll and retain a sufficient number of patient candidates. Any clinical trials we conduct may be subject to delays for a variety of reasons, including as a result of patient enrollment taking longer than anticipated, patient withdrawal, or adverse events. These types of developments could cause us to delay the trial or halt further development.

Our clinical trials will compete with other clinical trials that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, as some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Moreover, enrolling patients in clinical trials for diseases in which there is an approved standard of care is challenging, as patients will first receive the applicable standard of care. Many patients who respond positively to the standard of care do not enroll in clinical trials. This may limit the number of eligible patients able to enroll in our clinical trials who have the potential to benefit from our product candidates and could extend development timelines or increase costs for these programs. Patients who fail to respond positively to the standard of care treatment are eligible for clinical trials of unapproved drug candidates. However, these prior treatment regimens may render our therapies less effective in clinical trials.

Because the number of qualified clinical investigators and clinical trial sites is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials at such clinical trial sites.

Patient enrollment depends on many factors, including:

- the size and nature of the patient population;
- the severity of the disease under investigation;
- eligibility criteria for the trial;
- the proximity of patients to clinical sites;

- the design of the clinical protocol;
- the ability to obtain and maintain patient consents;
- perceived risks and benefits of the product candidate under evaluation, including any perceived risks associated with iPSC-derived product candidates;
- the ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the risk that patients enrolled in clinical trials will drop out of the trials before the administration of our product candidates or trial completion;
- the availability of competing clinical trials;
- the availability of such patients during the COVID-19 pandemic;
- the availability of new drugs approved for the indication the clinical trial is investigating; and
- clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies.

These factors may make it difficult for us to enroll enough patients to complete our clinical trials in a timely and cost-effective manner. Delays in the completion of any clinical trial of our product candidates will increase our costs, slow down our product candidate development and approval process, and delay or potentially jeopardize our ability to commence product sales and generate revenue. In addition, some of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

We may become exposed to costly and damaging liability claims, either when testing our product candidates in the clinic or at the commercial stage, and our product liability insurance may not cover all damages from such claims.

We are exposed to potential product liability and professional indemnity risks that are inherent in the research, development, manufacturing, marketing, and use of pharmaceutical products. While we currently have no products that have commenced clinical trials or been approved for commercial sale, the future use of product candidates by us in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies, or others selling such products. Any claims against us, regardless of their merit, could be difficult and costly to defend and could materially adversely affect the market for our product candidates or any prospects for commercialization of our product candidates.

Although the clinical trial process is designed to identify and assess potential side effects, it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If any of our product candidates were to cause adverse side effects during clinical trials or after approval, we may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects or patients who should not use our product candidates.

Even successful defense against product liability claims would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in: decreased demand for our product candidates; injury to our reputation; withdrawal of clinical trial participants; initiation of investigations by regulators; costs to defend the related litigation; a diversion of management's time and our resources; substantial monetary awards to trial participants or patients; product recalls, withdrawals or labeling, marketing or promotional restrictions; loss of revenue; exhaustion of any available insurance and our capital resources; the inability to commercialize any product candidate; and a decline in our share price.

Although we maintain adequate product liability insurance for our product candidates, it is possible that our liabilities could exceed our insurance coverage. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for any of our product candidates. However, we may be unable to maintain insurance coverage at a reasonable cost or obtain insurance coverage that will be adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims, and our business operations could be impaired.

Risks Related to Our Regulatory Environment

The development and commercialization of biopharmaceutical products is subject to extensive regulation, and the regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time-consuming, and inherently unpredictable. If we are ultimately unable to obtain regulatory approval for our product candidates on a timely basis if at all, our business will be substantially harmed.

The clinical development, manufacturing, labeling, packaging, storage, recordkeeping, advertising, promotion, export, import, marketing, distribution, adverse event reporting, including the submission of safety and other post-marketing information and reports, and other possible activities relating to our product candidates are subject to extensive regulation. In the United States, marketing approval of biologics requires the submission of a BLA to the FDA, and we are not permitted to market any product candidate in the United States until we obtain approval from the FDA of the BLA for that product candidate. A BLA must be supported by extensive clinical and preclinical data, as well as extensive information regarding pharmacology, chemistry, manufacturing, and controls. Outside the United States, many comparable foreign regulatory authorities employ similar approval processes.

We have not previously submitted a BLA to the FDA or similar regulatory approval filings to comparable foreign authorities for any product candidate, and we cannot be certain that any of our product candidates will receive regulatory approval. We are not permitted to market our product candidates in the United States or in other countries until we receive approval of a BLA from the FDA or marketing approval from applicable regulatory authorities outside the United States. Obtaining approval of a BLA can be a lengthy, expensive, and uncertain process, and as a company we have no experience with the preparation of a BLA submission or any other application for marketing approval. Further, the FDA has not yet granted approval for a therapeutic derived from stem cells, which we believe may increase the complexity, uncertainty and length of the regulatory approval process for certain of our product candidates derived from our *ex vivo* cell engineering platform. In addition, the FDA has the authority to require REMS plan as part of a BLA or after approval, which may impose further requirements or restrictions on the distribution or use of an approved biologic, such as limiting prescribing to certain physicians or medical centers that have undergone specialized training, limiting treatment to patients who meet certain safe-use criteria and requiring treated patients to enroll in a registry.

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

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate’s clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a BLA or other submission or to obtain regulatory approval in the United States or elsewhere, or regulatory authorities may not accept a submission due to, among other reasons, the content or formatting of the submission;
- the FDA or comparable foreign regulatory authorities may fail to approve our manufacturing processes or facilities or those of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval, including, for example, as a result of positive or negative data from third parties regarding other products or product candidates.

This lengthy approval process, as well as the unpredictability of future clinical trial results, may result in our failing to obtain regulatory approval to market any of our product candidates, which would significantly harm our business, results of operations, and prospects. The FDA and comparable foreign regulatory authorities have substantial discretion in the approval process, and determining when or whether regulatory approval will be obtained for any of our product candidates. For example, regulatory authorities in various jurisdictions have in the past had, and may in the future have, differing requirements for, interpretations of and opinions on our preclinical and clinical data. As a result, we may be required to conduct additional preclinical studies, alter our proposed clinical trial designs, or conduct additional clinical trials to satisfy the regulatory authorities in each of the jurisdictions in which we hope to conduct clinical trials and develop and market our products, if approved. Further, even if we believe the data collected from clinical trials of our product candidates are promising, such data may not be sufficient to support approval by the FDA or any comparable foreign regulatory authority.

In addition, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Notably, to date, the FDA has required that any patient receiving a gene therapy be followed for 15 years post-treatment. This post-treatment follow-up increases the cost and complexity of commercializing gene therapy products. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

Even if our product candidates obtain regulatory approval, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal, and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.

If the FDA or a comparable foreign regulatory authority approves any of our product candidates, the manufacturing processes, testing, labeling, packaging, distribution, import, export, adverse event reporting, storage, advertising, promotion, and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMPs and GCPs for any clinical trials that we conduct post-approval, all of which may result in significant expense and limit our ability to commercialize such products. In addition, any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA and comparable foreign regulatory authority requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations, as well as, for the manufacture of certain of our product candidates, the FDA's cGTPs for the use of human cellular and tissue products to prevent the introduction, transmission or spread of communicable diseases. As such, we and our contract manufacturers will be subject to continual review and inspections to assess compliance with cGMP, cGTPs and adherence to commitments made in any approved marketing application. Accordingly, we and others with whom we work must continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, quality control, and distribution.

If there are changes in the application of legislation or regulatory policies, or if problems are discovered with a product or our manufacture of a product, or if we or one of our distributors, licensees or co-marketers fails to comply with regulatory requirements, the regulators could take various actions. These include issuing warning letters or untitled letters, imposing fines on us, imposing restrictions on the product or its manufacture, and requiring us to recall or remove the product from the market. The regulators could also suspend or withdraw our marketing authorizations, requiring us to conduct additional clinical trials, change our product labeling, or submit additional applications for marketing authorization. If any of these events occurs, our ability to sell such product may be impaired, and we may incur substantial additional expense to comply with regulatory requirements, which could materially adversely affect our business, financial condition, and results of operations.

In addition, if we have any product candidate approved, our product labeling, advertising, and promotion will be subject to regulatory requirements and continuing regulatory review. In the United States, the FDA and the Federal Trade Commission (FTC) strictly regulate the promotional claims that may be made about pharmaceutical products to ensure that any claims about such products are consistent with regulatory approvals, not misleading or false in any particular, and adequately substantiated by clinical data. The promotion of a drug product in a manner that is false, misleading, unsubstantiated, or for unapproved (or off-label) uses may result in enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA or the FTC. In particular, a product may not be promoted for uses that are not approved by the FDA as reflected in the product's approved labeling. If we receive marketing approval for a product candidate, physicians may nevertheless prescribe it to their patients in a manner that is inconsistent with the approved label. If we are found to have promoted such off-label uses, we may become subject to significant liability. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant sanctions and may result in false claims litigation under federal and state statutes, which can lead to consent decrees, civil monetary penalties, restitution, criminal fines and imprisonment, and exclusion from participation in Medicare, Medicaid, and other federal and state healthcare programs. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, or disagrees with the promotion, marketing or labeling

of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- issue warning letters;
- issue, or require us to issue, safety-related communications, such as safety alerts, field alerts, “Dear Doctor” letters to healthcare professionals, or import alerts;
- impose civil or criminal penalties;
- suspend, limit, or withdraw regulatory approval;
- suspend any of our preclinical studies and clinical trials;
- refuse to approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our and our contract manufacturers’ facilities; or
- seize or detain products, refuse to permit the import or export of products, or require us to conduct a product recall.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our products, if approved. If regulatory sanctions are applied or if regulatory approval is withdrawn, the value of our company and our operating results will be adversely affected.

Moreover, the policies of the FDA and of comparable foreign regulatory authorities may change and additional government regulations may be enacted that could prevent, limit, or delay regulatory approval of our product candidates. We cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Disruptions at the FDA and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire, retain, or deploy key leadership and other personnel, or otherwise prevent new or modified products from being developed, approved, or commercialized in a timely manner or at all, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, statutory, regulatory, and policy changes, the FDA’s ability to hire and retain key personnel and accept the payment of user fees, and other events that may otherwise affect the FDA’s ability to perform routine functions. Average review times at the FDA have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable. Disruptions at the FDA and other agencies may also slow the time necessary for new biologics or modifications to licensed biologics to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities.

Separately, in response to the COVID-19 pandemic, in March 2020, the FDA temporarily postponed routine surveillance inspections of domestic manufacturing facilities. While the FDA has resumed certain on-site inspections of domestic manufacturing facilities, such activities are based on a risk-based prioritization system. The FDA intends to use this risk-based assessment system to identify the categories of regulatory activity that can occur within a given geographic area, ranging from mission critical inspections to resumption of all regulatory activities. In April 2021, the FDA issued additional guidance indicating that it plans to conduct voluntary remote interactive evaluations of certain drug manufacturing facilities and clinical research sites for situations in which in-person inspection would not be prioritized, deemed mission-critical or is otherwise limited by travel restrictions. Regulatory authorities outside the United States may adopt similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or comparable foreign regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or comparable foreign regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

Our research and development activities could be affected or delayed as a result of possible restrictions on animal testing.

Certain laws and regulations require us to test our product candidates on animals before initiating clinical trials involving humans. Animal testing activities have been the subject of controversy and adverse publicity. Animal rights groups and other organizations and individuals have attempted to stop animal testing activities by pressing for legislation and regulation in these areas and by disrupting these activities through protests and other means. To the extent the activities of these groups are successful, our research and development activities may be interrupted, delayed, or become more expensive.

Our business operations and current and future relationships with healthcare professionals, principal investigators, consultants, vendors, customers, and third-party payors in the United States and elsewhere are subject to applicable anti-kickback, fraud and abuse, false claims, physician payment transparency, and other healthcare laws and regulations, which could expose us to substantial penalties, contractual damages, reputation harm, administrative burdens, and diminished profits.

Healthcare providers, healthcare facilities and institutions, physicians, and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our current and future arrangements with healthcare professionals, healthcare facilities and institutions, principal investigators, consultants, customers, and third-party payors may expose us to broadly applicable fraud and abuse and other healthcare laws, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, that may constrain the business or financial arrangements and relationships through which we research, sell, market, and distribute any product candidates for which we obtain marketing approval. In addition, we may be subject to physician payment transparency laws and regulation by the federal government and by the states and foreign jurisdictions in which we conduct our business. The applicable federal, state, and foreign healthcare laws that affect our ability to operate include, but are not limited to, the following:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving, or providing any remuneration (including any kickback, bribe, or certain rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order or recommendation of, any good, facility, item or service, for which payment may be made, in whole or in part, under any U.S. federal healthcare program, such as Medicare and Medicaid. The term "remuneration" has been broadly interpreted to include anything of value, including stock options. The federal Anti-Kickback Statute has also been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other hand. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but the exceptions and safe harbors are drawn narrowly and require strict compliance in order to offer protection. Any arrangements with prescribers must be for *bona fide* services and compensated at fair market value. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but the exceptions and safe harbors are drawn narrowly and require strict compliance in order to offer protection. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- the U.S. federal civil and criminal false claims laws, including without limitation, the civil False Claims Act, which can be enforced by private citizens on behalf of the U.S. federal government through civil whistleblower or *qui tam* actions, and the federal civil monetary penalties law which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, to the U.S. federal government, claims for payment or approval that are false or fraudulent, knowingly making, using, or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making a false statement to avoid, decrease, or conceal an obligation to pay money to the U.S. federal government. Pharmaceutical manufacturers can cause false claims to be presented to the U.S. federal government by, among other things, engaging in impermissible marketing practices, such as the off-label promotion of a product for an indication for which it has not received FDA approval. Further, pharmaceutical manufacturers can be held liable under the civil False Claims Act even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. In addition, the government may assert that a claim including items and services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act;
- the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing, or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items, or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the healthcare fraud statute implemented under HIPAA or specific intent to violate it in order to have committed a violation;
- the U.S. Federal Food, Drug, and Cosmetic Act (the FDCA), which prohibits, among other things, the adulteration or misbranding of drugs, biologics, and medical devices;

- the U.S. Public Health Service Act, which prohibits, among other things, the introduction into interstate commerce of a biological product unless a biologics license is in effect for that product;
- the U.S. Physician Payments Sunshine Act and its implementing regulations, which requires, among other things, certain manufacturers of drugs, devices, biologics, and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare and Medicaid Services, or CMS, information related to certain payments and other transfers of value to physicians, as defined by statute, and teaching hospitals, as well as ownership and investment interests held by such physicians and their immediate family members. Beginning in 2022, such obligations will include the reporting of payments and other transfers of value provided in the previous year to certain other healthcare professionals, including physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, anesthesiologist assistants, and certified nurse-midwives;
- analogous U.S. state laws and regulations, including: state anti-kickback and false claims laws, which may apply to our business practices, including but not limited to, research, distribution, sales and marketing arrangements, and claims involving healthcare items or services reimbursed by any third-party payor, including private insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information, which requires tracking gifts and other remuneration and items of value provided to healthcare professionals and entities; and state and local laws requiring the registration of pharmaceutical sales representatives; and
- similar healthcare laws and regulations in foreign jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers.

Ensuring that our internal operations and future business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is not always possible to identify and deter employee misconduct or business noncompliance, and the precautions we take to detect and prevent inappropriate conduct may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. We have entered into consulting and scientific advisory board arrangements with physicians and other healthcare providers, including some who could influence the use of our product candidates, if approved. Compensation under some of these arrangements includes the provision of stock or stock options in addition to cash consideration. Because of the complex and far-reaching nature of these laws, it is possible that governmental authorities could conclude that our payments to physicians may not be fair market value for *bona fide* services or that our business practices do not comply with current or future statutes, regulations, agency guidance or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including civil, criminal, and administrative penalties, damages, fines, exclusion from government-funded healthcare programs, such as Medicare and Medicaid, or similar programs in other countries or jurisdictions, integrity oversight and reporting obligations to resolve allegations of noncompliance, disgorgement, imprisonment, contractual damages, reputational harm, diminished profits, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs and imprisonment, which could affect our ability to operate our business. Further, defending against any such actions can be costly, time-consuming and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired.

Our employees, independent contractors, principal investigators, consultants, commercial partners, and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of fraud and other misconduct committed by our personnel. We cannot ensure that our compliance controls, policies, and procedures will in every instance protect us from acts committed by our employees, agents, contractors, or collaborators that would violate the laws or regulations of the jurisdictions in which we operate, including, without limitation, employment, foreign corrupt practices, trade restrictions and sanctions, environmental, competition, and patient privacy and other privacy laws and regulations. Misconduct by employees, independent contractors, principal investigators, consultants, commercial partners, and vendors could include failures to comply with FDA regulations, provide accurate information to the FDA, comply with manufacturing standards we may establish, comply with federal and state healthcare fraud and abuse laws and regulations, report financial information or data accurately, or disclose unauthorized activities to us. In particular, sales, marketing, and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-

dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, labeling, marketing and promotion, sales commission, customer incentive programs, and other business arrangements. Misconduct by our employees, independent contractors, principal investigators, consultants, commercial partners, and vendors could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations.

If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a material and adverse effect on our business, financial condition, results of operations and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, individual imprisonment, disgorgement of profits, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of noncompliance with the law, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and pursue our strategy.

Current and future legislation may increase the difficulty and cost for us and any future collaborators to obtain marketing approval of and commercialize our product candidates and affect the prices we, or they, may obtain.

In the United States and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes and proposed changes to the healthcare system that could affect our future results of operations. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare. For example, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively the ACA, was enacted, which substantially changed the way healthcare is financed by both governmental and private payors. Among the provisions of the ACA of importance to the pharmaceutical and biotechnology industries, which includes biologics, are the following:

- manufacturers and importers of certain branded prescription drugs, including certain biologics, with annual sales of more than $5 million made to or covered by specified federal healthcare programs are required to pay an annual, nondeductible fee according to their market share of all such sales;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program, to 23.1% of the average manufacturer price for most branded drugs, biologics, and biosimilars and to 13.0% for generic drug, and cap of the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price;
- a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for certain drugs and biologics, including our product candidates, that are inhaled, infused, instilled, implanted, or injected;
- extension of manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health program, commonly referred to as the "340B Program;"
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians, also known as the "Physician Payments Sunshine Act;"
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;
- establishment of a Center for Medicare Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending; and
- a licensure framework for follow-on biologic products.

Since its enactment, there have been judicial and Congressional challenges to certain aspects of the ACA, and we expect there will be additional challenges and amendments to the ACA in the future. For example, legislation enacted in 2017 informally titled the Tax Cuts and Jobs Act of 2017, repealed the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage that is commonly referred to as the "individual mandate." In December 2019, a U.S.

District Court upheld a ruling that the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress. In March 2020, the Supreme Court of the United States agreed to hear the appeal of this decision, but it is uncertain when the Supreme Court will rule on this case. It is unclear how this and other efforts to challenge, repeal, or replace the ACA will impact the ACA or our business.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted which, among other things, have reduced Medicare payments to several types of providers, including hospitals and cancer treatment centers. These new laws or any other similar laws introduced in the future, as well as regulatory actions that may be taken by CMS, may result in additional reductions in Medicare and other healthcare funding, which could negatively affect our customers and accordingly, our financial operations. Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. Additionally, individual states in the United States have passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing and costs. Similar developments have occurred outside of the United States, including in the European Union where healthcare budgetary constraints have resulted in restrictions on the pricing and reimbursement of medicines by relevant health service providers. To obtain reimbursement or pricing approval in some European Union member states, we may be required to conduct studies that compare the cost-effectiveness of our product candidates to other therapies that are considered the local standard of care.

It is also possible that additional governmental action is taken in response to address the COVID-19 pandemic. We cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative action in the United States or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our product candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

Even if we are able to commercialize any product candidate, coverage and adequate reimbursement may not be available or such product candidate may become subject to unfavorable pricing regulations or third-party coverage and reimbursement policies, which would harm our business.

The regulations that govern regulatory approvals, pricing, and reimbursement for drug products vary widely from country to country. Some countries require approval of the sale price of a drug product before it can be marketed. In many countries, the pricing review period begins after marketing approval is granted. In some foreign markets, prescription drug product pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain regulatory approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain regulatory approval.

Our ability to commercialize any products successfully also will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from third-party payors, such as government authorities, private health insurers, and other organizations. Even if we succeed in bringing one or more products to the market, these products may not be considered cost-effective, and the amount reimbursed for any products may be insufficient to allow us to sell our products on a competitive basis. Because our programs are in the early stages of development, we are unable at this time to determine their cost effectiveness or the likely level or method of coverage and reimbursement. Increasingly, the third-party payors who reimburse patients or healthcare providers are requiring that drug companies provide them with predetermined discounts from list prices, and are seeking to reduce the prices charged or the amounts reimbursed for drug products. If the price we are able to charge for any products we develop, or the coverage and reimbursement provided for such products, is inadequate in light of our development and other costs, our return on investment could be affected adversely.

There may be significant delays in obtaining reimbursement for newly-approved drug products, and coverage may be more limited than the purposes for which the drug product is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for reimbursement does not imply that any drugs product will be reimbursed in all cases or at a rate that covers our costs, including research, development, manufacture, sale, and distribution.

Interim reimbursement levels for new drug products, if applicable, may also be insufficient to cover our costs and may not be made permanent. Reimbursement rates may be based on payments allowed for lower cost drug products that are already reimbursed, may be incorporated into existing payments for other services and may reflect budgetary constraints or imperfections in Medicare data. Net prices for drug products may be reduced by mandatory discounts or rebates required by third-party payors and by any future relaxation of laws that presently restrict imports of drug products from countries where they may be sold at lower prices than in the United States. Obtaining coverage and adequate reimbursement for our product candidates may be particularly difficult because of the

higher prices often associated with drugs administered under the supervision of a physician. Similarly, because our product candidates are physician-administered injectables, separate reimbursement for the product itself may or may not be available. Instead, the administering physician may or may not be reimbursed for providing the treatment or procedure in which our product is used.

Further, no uniform policy for coverage and reimbursement exists in the United States, and coverage and reimbursement can differ significantly from payor to payor. Third-party payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates, but also have their own methods and approval process apart from Medicare determinations. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Decisions regarding the extent of coverage and amount of reimbursement to be provided for any product candidates that we develop will be made on a payor-by-payor basis. One payor's determination to provide coverage for a drug does not assure that other payors will also provide coverage and adequate reimbursement for the drug. Additionally, a third-party payor's decision to provide coverage for a therapy does not imply that an adequate reimbursement rate will be approved.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal, and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future, including repeal, replacement, or significant revisions to the Affordable Care Act. The continuing efforts of the government, insurance companies, managed care organizations, and other payors of healthcare services to contain or reduce costs of healthcare and/or impose price controls may adversely affect:

- the demand for our product candidates, if we obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to obtain coverage and reimbursement approval for a product;
- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

Our inability to promptly obtain coverage and adequate reimbursement from both third-party payors for the product candidates that we may develop and for which we obtain regulatory approval could have a material and adverse effect on our business, financial condition, results of operations, and prospects.

We face potential liability related to the privacy of personal information, including health information we utilize in the development of products developed from our ex vivo cell engineering platform, as well as information we obtain from clinical trials sponsored by us from research institutions and directly from individuals.

We and our partners and vendors are subject to various federal, state, and foreign data protection laws and regulations. If we fail to comply with these laws and regulations, we may be subject to litigation, regulatory investigations, enforcement notices, enforcement actions, fines, and criminal or civil penalties, as well as negative publicity, reputational harm, and a potential loss of business.

In the United States, numerous federal and state laws and regulations, including state data breach notification laws and federal and state data privacy laws and regulations that govern the collection, use, disclosure, and protection of health information and other personal information apply to our operations and the operations of our partners. For example, most healthcare providers, including research institutions from which we obtain patient health information, are subject to data privacy and security regulations promulgated under HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (HITECH). Depending on the facts and circumstances, we could be subject to significant penalties if we violate HIPAA. For example, under HIPAA, we could potentially face substantial criminal or civil penalties if we knowingly receive protected health information from a HIPAA-covered healthcare provider or research institution that has not satisfied HIPAA's requirements for disclosure of such health information, or otherwise violate applicable HIPAA requirements related to the protection of such information. Even when HIPAA does not apply, failing to take appropriate steps to keep consumers' personal information secure may constitute a violation of the Federal Trade Commission Act.

Certain of the research materials we use in our therapeutic research and development efforts, as well as stem cell lines used as starting material in our *ex vivo* cell engineering product candidates are derived from human sources, which potentially contain sensitive identifiable personal information regarding the donor. In addition, once we commence clinical trials, we may maintain sensitive identifiable personal information, including health information, that we receive throughout the clinical trial process, in the course of our research collaborations, and directly from individuals (or their healthcare providers) who enroll in our patient assistance

programs. As such, we may become subject to further obligations under HIPAA. In addition, our collection of personal information generally (e.g., of employees currently and/or of patients in the future) may subject us to state data privacy laws governing the processing of personal information and requiring notification of affected individuals and state regulators in the event of a breach of such personal information. These state laws include the California Consumer Privacy Act (CCPA) and its related regulations, and (once effective) the recently approved California Privacy Rights Act (CRPA) amending the CCPA, which establish additional data privacy rights for residents of the State of California, with corresponding obligations on businesses related to transparency, deletion rights, and opt-out of the selling of personal information, and grant a private right of action for individuals in the event of certain security breaches. Similar laws relating to data privacy and security have been proposed in other states and at the federal level, and if passed, such laws may have potentially conflicting requirements that would make compliance challenging, require us to expend significant resources to come into compliance, and restrict our ability to process certain personal information.

California voters approved the CPRA in the November 3, 2020 election. Effective starting on January 1, 2023, the CPRA will significantly modify the CCPA, including by expanding consumers' rights with respect to certain sensitive personal information. The CPRA also creates a new state agency that will be vested with authority to implement and enforce the CCPA and the CPRA. New legislation proposed or enacted in various other states will continue to shape the data privacy environment nationally. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to confidential, sensitive and personal information than federal, international or other state laws, and such laws may differ from each other, which may complicate compliance efforts.

Any clinical trial programs and research collaborations that we engage in outside the United States may implicate international data protection laws, including, in Europe, the General Data Protection Regulation (GDPR). The GDPR imposes stringent operational requirements for data processors and controllers of personal data. Among other things, the GDPR requires detailed notices for clinical trial subjects and investigators, as well as the security of personal data, and notification of data processing obligations or security incidents to appropriate data protection authorities or data subjects. Further, following the United Kingdom's withdrawal from the European Union, effective as of December 31, 2020, we are required to comply with the GDPR and the GDPR as incorporated into United Kingdom national law, which may have differing requirements.

One particularly sensitive issue under these European Union data privacy laws involves European Economic Area (EEA) laws on data export if we begin to transfer personal data from the EEA to other jurisdictions. Recent legal developments in Europe have created complexity and uncertainty regarding transfers of personal data from the EEA to the United States. For example, on July 16, 2020, the Court of Justice of the European Union, or CJEU, invalidated the EU-US Privacy Shield Framework, or Privacy Shield, under which personal data could previously be transferred from the EEA to United States entities who had self-certified under the Privacy Shield scheme. The CJEU decision also created additional obligations and uncertainty around the ability to use standard contractual clauses for such data transfers. As government authorities issue further guidance on personal data export mechanisms or start aggressively taking enforcement action based on such guidance or the CJEU decision, we could suffer additional costs, complaints, and/or regulatory investigations or fines. If we are otherwise unable to transfer personal data between and among countries and regions in which we operate, it could affect the manner in which we provide our services, the geographical location or segregation of our relevant systems and operations, and adversely affect our financial results. These international laws and regulations may apply not only to us, but also to vendors that store or otherwise process personal data on our behalf, such as information technology vendors. If our data privacy and/or security measures fail to comply with European Union and United Kingdom data privacy laws, or if a vendor misuses data we have provided to it or fails to safeguard such data, we may be subject to litigation, regulatory investigations, enforcement notices, and/or enforcement actions imposing fines and/or requiring us to change the way we use personal data, as well as negative publicity, reputational harm, and a potential loss of business.

We are likely to be required to expend significant capital and other resources to ensure ongoing compliance with applicable data privacy and security laws. Claims that we have violated individuals' privacy rights or breached our contractual obligations, even if we are not found liable, could be expensive and time-consuming to defend and could result in adverse publicity that could harm our business. Moreover, even if we take all necessary action to comply with legal and regulatory requirements, we could be subject to a data breach or other unauthorized access of personal information, which could subject us to fines and penalties, as well as litigation and reputational damage.

If we fail to keep apprised of and comply with applicable international, federal, state, or local regulatory requirements, we could be subject to a range of regulatory actions that could affect our or any collaborators' ability to seek to commercialize our clinical candidates. Any threatened or actual government enforcement action or litigation where private rights of action are available could also generate adverse publicity, damage our reputation, result in liabilities, fines and loss of business, and require that we devote substantial resources that could otherwise be used in other aspects of our business.

Risks Related to Commercialization of Our Product Candidates

We operate in highly competitive and rapidly changing industries, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

The biotechnology and pharmaceutical industries are highly competitive and subject to significant and rapid technological change. Our success is highly dependent on our ability to discover, develop and obtain marketing approval for new and innovative products on a cost-effective basis and to market them successfully. In doing so, we face and will continue to face intense competition from a variety of businesses, including large pharmaceutical and biotechnology companies, academic institutions, government agencies and other public and private research organizations. These organizations may have significantly greater resources than we do and conduct similar research, seek patent protection and establish collaborative arrangements for research, development, manufacturing, and marketing of products that compete with our product candidates. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances in the commercial applicability of technologies and greater availability of capital for investment in these industries.

With the proliferation of new drugs and therapies for our target indications, we expect to face increasingly intense competition as new technologies become available. If we fail to stay at the forefront of technological change, we may be unable to compete effectively. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. The highly competitive nature of and rapid technological changes in the biotechnology and pharmaceutical industries could render our product candidates or our technology obsolete, less competitive or uneconomical. Our competitors may, among other things:

- have significantly greater financial, manufacturing, marketing, drug development, technical, and human resources than we do;
- develop and commercialize products that are safer, more effective, less expensive, more convenient or easier to administer, or have fewer or less severe side effects;
- obtain quicker regulatory approval;
- establish superior proprietary positions covering our products and technologies;
- implement more effective approaches to sales and marketing; or
- form more advantageous strategic alliances.

Should any of these factors occur, our business, financial condition, and results of operations could be materially adversely affected.

In addition, any collaborators may decide to market and sell products that compete with the product candidates that we have agreed to license to them, and any competition by our collaborators could also have a material adverse effect on our future business, financial condition, and results of operations.

Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. See the subsection titled “Business—Competition” in our 2020 Form 10-K.

Market opportunity and market growth may prove to be smaller than we estimated, and even if the markets in which we compete achieve the forecasted growth, our business may not grow at similar rates, or at all.

We intend to initially focus our product candidate development on treatments for various diseases caused by missing or damaged cells. Our projections of addressable patient populations within any particular disease state that may benefit from treatment with our product candidates are based on our estimates. Market opportunity estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates. These estimates, which have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, and market research, may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these diseases. Additionally, the potentially addressable patient population for our product candidates may not ultimately be amenable to treatment with our product candidates. Our market opportunity may also be limited by future competitor treatments that enter the market. If any of our estimates prove to be inaccurate, the market opportunity for any product candidate that we or our strategic partners develop could be significantly diminished and have an adverse material impact on our business.

In particular, certain of our product candidates are intended to address cancer, and, in particular, B cell malignancies. Cancer therapies are sometimes characterized as first line, second line, or third line, and the FDA often approves new therapies initially only for a particular line of use. When cancer is detected early enough, first line therapy is sometimes adequate to cure the cancer or prolong life without a cure. Whenever first line therapy, usually chemotherapy, antibody drugs, tumor-targeted small molecules, hormone therapy, radiation therapy, surgery, or a combination of these, proves unsuccessful, second line therapy may be administered. Second line therapies often consist of more chemotherapy, radiation, antibody drugs, tumor-targeted small molecules, or a combination of these. Third line therapies can include chemotherapy, antibody drugs and small molecule tumor-targeted therapies, more invasive forms of surgery and new technologies. The use of CAR T therapies has been limited to the relapsed/refractory patient subset. Our projections of both the number of people who have the cancers we are targeting, as well as the subset of people with these cancers who are in a position to receive a particular line of therapy and who have the potential to benefit from treatment with our product candidates are based on our beliefs and estimates. Consequently, even if our product candidates are approved for a later line of therapy, the number of patients that may be eligible for treatment with our product candidates may turn out to be much lower than expected.

We currently have no marketing, sales, or distribution infrastructure and we intend to either establish a sales and marketing infrastructure or outsource this function to a third party. Either of these commercialization strategies carries substantial risks to us.

We currently have no marketing, sales, and distribution capabilities because all of our product candidates are still in preclinical development. If any of our product candidates complete clinical development and are approved, we intend to either establish a sales and marketing organization with technical expertise and supporting distribution capabilities to commercialize our product candidates in a legally compliant manner, or to outsource this function to a third party. There are risks involved if we decide to establish our own sales and marketing capabilities or enter into arrangements with third parties to perform these services. To the extent that we enter into collaboration agreements with respect to marketing, sales or distribution, our product revenue may be lower than if we directly marketed or sold any approved products. Such collaborative arrangements with partners may place the commercialization of our products outside of our control and would make us subject to a number of risks, including that we may not be able to control the amount or timing of resources that our collaborative partner devotes to our products or that our collaborator's willingness or ability to complete its obligations, and our obligations under our arrangements, may be adversely affected by business combinations or significant changes in our collaborator's business strategy.

If we are unable to enter into these arrangements on acceptable terms, or at all, we may not be able to successfully commercialize any approved products. If we are not successful in commercializing any approved products, either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we may incur significant additional losses, which would have a material adverse effect on our business, financial condition, and results of operations.

Our product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

The ACA includes a subtitle called the Biologics Price Competition and Innovation Act of 2009 (BPCIA), which created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a highly similar or "biosimilar" product may not be submitted to the FDA until four years following the date that the reference product was first approved by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first approved. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity, and potency of their product. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. In addition, complexities associated with the larger, and often more complex, structures of biological products such as cell and gene products we are developing, as well as the processes by which such products are manufactured, pose significant hurdles to implementation of the abbreviated approval pathway that are still being worked out by the FDA.

We believe that any of our product candidates approved as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider our product candidates to be reference products for competing products, potentially creating the opportunity for competition sooner than anticipated. Other aspects of the BPCIA, some of which may impact the BPCIA exclusivity provisions, have also been the subject of recent litigation. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing.

Jurisdictions in addition to the United States have established abbreviated pathways for regulatory approval of biological products that are biosimilar to earlier approved reference products. For example, the European Union has had an established regulatory pathway for biosimilars since 2004. However, biosimilars can only be authorized once the period of data exclusivity on the reference biological medicine has expired.

The increased likelihood of biosimilar competition has increased the risk of loss of innovators' market exclusivity. Due to this risk, and uncertainties regarding patent protection, if our clinical candidates are approved for marketing, it is not possible to predict the length of market exclusivity for any particular product with certainty based solely on the expiration of the relevant patent(s) or the current forms of regulatory exclusivity. It is also not possible to predict changes in United States regulatory law that might reduce biological product regulatory exclusivity. The loss of market exclusivity for a product would likely materially and negatively affect revenues and we may not generate adequate or sufficient revenues from them or be able to reach or sustain profitability.

Risks Related to Our Dependence on Third Parties

We rely on, and expect to continue to expect to rely on, third parties to manufacture our product candidates. Any failure by a third-party manufacturer to produce acceptable raw materials or product candidates for us or to obtain authorization from the FDA or comparable foreign regulatory authorities may delay or impair our ability to initiate or complete our clinical trials, obtain regulatory approvals or commercialize approved products.

We do not currently own or operate any GMP manufacturing facilities, nor do we have any in-house GMP manufacturing capabilities. In July 2021, we entered into a long-term lease to establish and operate our own GMP manufacturing facility to support our late-stage clinical development and early commercial product candidates across our product portfolio. Though we plan to begin building out this facility in the near future, we expect that it will take several years before we are able to begin manufacturing our product candidates at this facility, if at all. Until we are able to begin manufacturing our product candidates at our facility, we will rely on third-party contract manufacturers to manufacture our product candidates for preclinical and clinical testing. A limited number of third-party contract manufacturers specialize in or have the expertise required to manufacture our product candidates. Moreover, our contract manufacturers have limited capacity at their facilities and require commitments to secure availability well in advance of manufacturing any products. Additionally, we face competition from other biopharmaceutical companies to secure availability to manufacture our product candidates at these facilities. If the third-party contract manufacturers on which we rely to manufacture our product candidates do not have sufficient availability at their facilities to manufacture our product candidates in accordance with our timelines or are not otherwise able to meet our expected deadlines, we will experience delays in manufacturing our product candidates, which could materially harm our ability to conduct our clinical trials or commercialize our product candidates in a timely manner and could harm our business.

In addition, we rely on multiple third-party contract manufacturers to produce sufficient quantities of materials required for the manufacture of our product candidates for preclinical testing and clinical trials, in compliance with applicable regulatory and quality standards, and intend to do so for the commercial manufacture of certain of our products, if approved. If we are unable to arrange for such third-party manufacturing sources, or fail to do so on commercially reasonable terms, we may not be able to successfully produce sufficient supply of product candidate or we may be delayed in doing so. Such failure or substantial delay could materially harm our business.

We rely on third parties for biological materials that are used in our discovery and development programs. These materials can be difficult to produce and occasionally have variability from the product specifications. Any disruption in the supply of these biological materials consistent with our product specifications could materially adversely affect our business. Although we have control processes and screening procedures, biological materials are susceptible to damage and contamination and may contain active pathogens. We may also have lower yields in manufacturing batches, which can increase our costs and slow our development timelines. Improper storage of these materials, by us or any third-party suppliers, may require us to destroy some of our biological raw materials or product candidates.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates ourselves, including reliance on the third party for regulatory compliance and quality control and assurance, volume production, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to synthesize and manufacture our product candidates in accordance with our product specifications) and the possibility of termination or nonrenewal of the agreement by the third party at a time that is costly or damaging to us.

In addition, the FDA and comparable foreign regulatory authorities require that our product candidates be manufactured according to cGMPs and similar foreign standards relating to methods, facilities, and controls used in the manufacturing, processing, and packing of the product, which are intended to ensure that biological products are safe and that they consistently meet applicable requirements and specifications.

Pharmaceutical manufacturers are required to register their facilities and products manufactured at the time of submission of the marketing application and then annually thereafter with the FDA and certain state and foreign agencies. If the FDA or a comparable foreign regulatory authority does not approve our proposed contract manufacturer's facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for, or market our product candidates, if approved. Any discovery of problems with a product, or a manufacturing or laboratory facility used by us or our strategic partners, may result in restrictions on the product or on the manufacturing or laboratory facility, including marketed product recall, suspension of manufacturing, product seizure, or a voluntary withdrawal of the drug from the market. We may have little to no control regarding the occurrence of third-party manufacturer incidents.

If we were unable to find an adequate replacement or another acceptable solution in time, our clinical trials could be delayed, or our commercial activities could be harmed. In addition, the fact that we are dependent on our collaborators, our suppliers, and other third parties for the manufacture, filling, storage, and distribution of our product candidates means that we are subject to the risk that the products may have manufacturing defects that we have limited ability to prevent or control. The sale of products containing such defects could adversely affect our business, financial condition, and results of operations. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates.

Pharmaceutical manufacturers are also subject to extensive post-marketing oversight by the FDA and comparable regulatory authorities in the jurisdictions where the product is marketed, which include periodic unannounced and announced inspections by the FDA to assess compliance with cGMP requirements. If an FDA inspection of a manufacturer's facilities reveals conditions that the FDA determines not to comply with applicable regulatory requirements, the FDA may issue observations through a Notice of Inspectional Observations, commonly referred to as a "Form FDA 483" report. If observations in the Form FDA 483 report are not addressed in a timely manner and to the FDA's satisfaction, the FDA may issue a Warning Letter or proceed directly to other forms of enforcement action. Any failure by one of our contract manufacturers to comply with cGMP or to provide adequate and timely corrective actions in response to deficiencies identified in a regulatory inspection could result in further enforcement action that could lead to a shortage of products and harm our business, including withdrawal of approvals previously granted, seizure, injunction or other civil or criminal penalties. The failure of a manufacturer to address any concerns raised by the FDA or foreign regulators could also lead to plant shutdown or the delay or withholding of product approval by the FDA in additional indications or by foreign regulators in any indication. Certain countries may impose additional requirements on the manufacturing of drug products or drug substances, and on manufacturers, as part of the regulatory approval process for products in such countries. The failure by our third-party manufacturers to satisfy such requirements could impact our ability to obtain or maintain approval of our products in such countries.

If we are unable to obtain sufficient raw and intermediate materials on a timely basis or if we experience other manufacturing or supply difficulties, our business may be adversely affected.

The manufacture of certain of our product candidates requires the timely delivery of sufficient amounts of raw and intermediate materials. We work closely with our suppliers to ensure the continuity of supply but cannot guarantee these efforts will always be successful. Further, while efforts are made to diversify our sources of raw and intermediate materials, in certain instances we acquire raw and intermediate materials from a sole supplier. While we believe that alternative sources of supply exist where we rely on sole supplier relationships, there can be no assurance that we will be able to quickly establish additional or replacement sources for some materials. A reduction or interruption in supply, and an inability to develop alternative sources for such supply, could adversely affect our ability to manufacture our product candidates in a timely or cost-effective manner.

Supply sources could be interrupted from time to time and, if interrupted, there is no guarantee that supplies could be resumed within a reasonable time frame and at an acceptable cost or at all.

We rely on our contract manufacturers to purchase from third-party suppliers the materials necessary to produce our product candidates for our preclinical studies and intend to continue to rely on these third parties for any clinical trials that we undertake. There are a limited number of suppliers for raw materials that we use to manufacture our drugs and there may be a need to assess alternate suppliers to prevent a possible disruption of the manufacture of the materials necessary to produce our product candidates for our preclinical studies, clinical trials, and if approved, ultimately for commercial sale. We do not have any control over the process or timing of the acquisition of these raw materials by our contract manufacturers. Moreover, we currently do not have any agreements for the commercial production of these raw materials. We cannot be sure that these suppliers will remain in business, or that they will not be purchased by one of our competitors or another company that is not interested in continuing to produce these materials for our intended purpose. In addition, the lead time needed to establish a relationship with a new supplier can be lengthy, and we may experience delays in meeting demand in the event a new supplier must be used. The time and effort to qualify a new supplier could result in additional costs, diversion of resources, or reduced manufacturing yields, any of which would negatively impact our

operating results. Although we generally do not begin a clinical trial unless we believe we have a sufficient supply of a product candidate to complete the clinical trial, any significant delay in the supply of a product candidate, or the raw material components thereof, for an ongoing clinical trial due to the need to replace a third-party manufacturer could considerably delay completion of our clinical trials, product testing, and potential regulatory approval of our product candidates. If our contract manufacturers or we are unable to purchase these raw materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

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

We have relied upon and plan to continue to rely upon third parties, including independent clinical investigators and third-party CROs, to conduct our preclinical studies and clinical trials and to monitor and manage data for our ongoing preclinical and clinical programs. We rely on these parties for execution of our preclinical studies and clinical trials, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies and trials is conducted in accordance with the applicable protocol, legal, regulatory, and scientific standards, and our reliance on these third parties does not relieve us of our regulatory responsibilities. We and our third-party contractors and CROs are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for all of our products candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators, and trial sites. If we or any of our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

Further, these investigators and CROs are not our employees and we will not be able to control, other than by contract, the amount of resources, including time, which they devote to our product candidates and clinical trials. If independent investigators or CROs fail to devote sufficient resources to the development of our product candidates, or if their performance is substandard, it may delay or compromise the prospects for approval and commercialization of any product candidates that we develop. In addition, the use of third-party service providers may require us to disclose our proprietary information to these parties, which could increase the risk that this information will be misappropriated. Additionally, disruptions caused by the COVID-19 pandemic may increase the likelihood that our CROs encounter difficulties or delays in initiating, enrolling, conducting, or completing our planned clinical trials. In particular, as a result of the pandemic, we have experienced and may continue to experience difficulty in accessing animal models, specifically non-human primate models, for the preclinical evaluation of our product candidates. Delays caused by the inability to access these models may cause our development timelines to be extended beyond what we anticipate.

Our CROs have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors, or if we are liquidated.

There is a limited number of third-party service providers that specialize or have the expertise required to achieve our business objectives. If any of our relationships with these third-party laboratories, CROs or clinical investigators terminate, we may not be able to enter into arrangements with alternative laboratories, CROs, or investigators or to do so in a timely manner or on commercially reasonable terms. If laboratories, CROs, or clinical investigators do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our preclinical or clinical protocols, regulatory requirements or for other reasons, our preclinical or clinical trials may be extended, delayed, or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase, and our ability to generate revenues could be delayed. Switching or adding additional laboratories or CROs (or investigators) involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new laboratory or CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Additionally, CROs may lack the capacity to absorb higher workloads or take on additional capacity to support our needs. Though we carefully manage our relationships with our contracted laboratories and CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition, and prospects.

In addition, clinical investigators may serve as scientific advisors or consultants to us from time to time and may receive cash or equity compensation in connection with such services. If these relationships and any related compensation result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected the interpretation of the preclinical study or clinical trial, the integrity of the data generated at the applicable preclinical study or clinical trial site may be questioned and the utility of the preclinical study or clinical trial itself may be jeopardized, which could result in the delay or rejection by the FDA. Any such delay or rejection could prevent us from commercializing our clinical-stage product candidate or any future product candidates.

We may not realize the benefits of any collaborative or licensing arrangement, and if we fail to enter into new strategic relationships our business, financial condition, commercialization prospects, and results of operations may be materially adversely affected.

Our product development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. Therefore, for some of our product candidates, we may decide to enter into collaborations with pharmaceutical or biopharmaceutical companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Collaborations are complex and time-consuming to negotiate and document. We may also be restricted under existing and future collaboration agreements from entering into agreements on certain terms with other potential collaborators. We may not be able to negotiate collaborations on acceptable terms, or at all. If our strategic collaborations do not result in the successful development and commercialization of product candidates, or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration or the research, development and commercialization product that is the subject of the collaboration may be delayed. Moreover, our estimates of the potential revenue we are eligible to receive under our strategic collaborations may include potential payments related to therapeutic programs for which our collaborators have discontinued development or may discontinue development in the future. If that were to occur, we may have to curtail the development of a particular product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of our sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we will not be able to bring our product candidates to market and generate product revenue.

In instances where we do enter into collaborations, we could be subject to the following risks, each of which may materially harm our business, commercialization prospects, and financial condition:

- we may not be able to control the amount and timing of resources that are required of us to complete our development obligations or that the collaboration partner devotes to the product development or marketing programs;
- the collaboration partner may experience financial difficulties;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials, or require a new formulation of a product candidate for clinical testing;
- we may be required to relinquish important rights such as marketing, distribution, and intellectual property rights;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to litigation or potential liability;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- a collaborator could move forward with a competing product developed either independently or in collaboration with third parties, including our competitors;
- we and our collaboration partner may disagree regarding the development plan for product candidates on which we are collaborating (for example, we may disagree with a collaboration partner regarding target indications, inclusion or exclusion criteria for a clinical trial, or the decision to seek front line therapy approval versus second, third, or fourth line therapy approval);
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts management attention and resources;
- business combinations or significant changes in a collaborator’s business strategy may adversely affect our willingness to complete our obligations under any arrangement; or
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

If we license products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the results, revenue, or specific net income that justifies such transaction.

Risks Related to Intellectual Property and Information Technology

We depend on intellectual property licensed from third parties and if we breach our obligations under these agreements or if any of these agreements is terminated, we may be required to pay damages, lose our rights to such intellectual property and technology, or both, which would harm our business.

We are dependent on patents, know-how, and proprietary technology, both our own and licensed from others. We are a party to a number of intellectual property license agreements and acquisition agreements pursuant to which we have acquired our core intellectual property rights. In the future, we expect to enter into additional license agreements. For example, with respect to our *ex vivo* cell engineering platform relying on hypoimmune technology, we have licensed certain intellectual property from Harvard, UCSF, and Washington University. Additionally, we acquired our *in vivo* cell engineering platform, which is based on fusogen technology, from Cobalt, which included several license agreements and options-to-license, as well as our glial progenitor cell and cardiomyocyte programs from Oscine and Cytocardia, respectively, both of which came with in-licenses. These license and acquisition agreements impose, and we expect that future license and acquisition agreements will impose, various diligence, milestone payment, royalty and other obligations on us. If we fail to comply with our obligations under these agreements, we may be required to pay damages, and the licensor may have the right to terminate the license. Any termination of these licenses could result in the loss of significant rights and could harm our ability to develop or advance one of our cell engineering platforms, or develop, manufacture and/or commercialize one of our product candidates. See the subsection titled "Business— Key Intellectual Property Agreements" in Part I, Item 1, of our 2020 Form 10-K for additional information regarding these key agreements.

In addition, the agreements under which we license intellectual property or technology to or from third parties are complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. Our business also would suffer if any current or future licensors fail to abide by the terms of the license, if the licensors fail to enforce licensed patents against infringing third parties, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms or at all. Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights.

In addition, while we cannot currently determine the amount of the royalty obligations we would be required to pay on sales of future products, if any, the amounts may be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability.

If we are unable to successfully obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may have to abandon development of the relevant research programs or product candidates, and our business, financial condition, results of operations and prospects could suffer.

Licensing of intellectual property is of critical importance to our business, involves complex legal, business and scientific issues and is complicated by the rapid pace of scientific discovery in our industry. Disputes may also arise between us and our licensors regarding intellectual property subject to a license agreement, including those relating to:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the license agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- whether we are complying with our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates, and what activities satisfy those diligence obligations;
- the priority of invention of patented technology;

- the amount and timing of payments owed under license agreements; and
- the allocation of ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and by us and our partners.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. We are generally also subject to all of the same risks with respect to protection of intellectual property that we license as we are for intellectual property that we own, which are described below. If we or our licensors fail to adequately protect this intellectual property, our ability to commercialize our products could suffer.

We depend, in part, on our licensors to file, prosecute, maintain, defend, and enforce certain patents and patent applications that are material to our business.

Certain patents relating to our product candidates are owned or controlled by certain of our licensors. Each of our licensors generally has rights to file, prosecute, maintain, and defend the patents we have licensed from such licensor in their name, generally with our right to comment on such filing, prosecution, maintenance, and defense, with some obligation for the licensor to consider or incorporate our comments, for our exclusively licensed patents. We generally have the first right to enforce our exclusively licensed patent rights against third parties, although our ability to settle such claims often requires the consent of the licensor. If our licensors or any future licensees having rights to file, prosecute, maintain, and defend our patent rights fail to conduct these activities for patents or patent applications covering any of our product candidates, including due to the impact of the COVID-19 pandemic on our licensors' business operations, our ability to develop and commercialize those product candidates may be adversely affected and we may not be able to prevent competitors from making, using, or selling competing products. We cannot be certain that such activities by our licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents or other intellectual property rights. Pursuant to the terms of the license agreements with some of our licensors, the licensors may have the right to control enforcement of our licensed patents or defense of any claims asserting the invalidity of these patents and, even if we are permitted to pursue such enforcement or defense, we cannot ensure the cooperation of our licensors. We cannot be certain that our licensors will allocate sufficient resources or prioritize their or our enforcement of such patents or defense of such claims to protect our interests in the licensed patents. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent us from continuing to license intellectual property that we may need to operate our business. In addition, even when we have the right to control patent prosecution of licensed patents and patent applications, enforcement of licensed patents, or defense of claims asserting the invalidity of those patents, we may still be adversely affected or prejudiced by actions or inactions of our licensors and their counsel that took place prior to or after our assuming control. In the event we breach any of our obligations related to such prosecution, we may incur significant liability to our licensing partners.

Given the breadth of the application of our cell engineering platforms, in order to increase our ability to exploit our technologies, we may enter into collaborations and/or strategic partnerships in the future, and we may not realize the anticipated benefits of such collaborations or partnerships.

Research and development collaborations and strategic partnerships are prevalent in the biotechnology industry. The breadth of the application of our *in vivo* and *ex vivo* cell engineering platforms are attractive technologies for potential collaborations. These transactions are subject to numerous risks, which may include the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to a collaboration, and may not commit sufficient efforts and resources, or may misapply those efforts and resources;
- collaborators may not pursue development and commercialization of collaboration product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results or changes in their strategic focus;
- collaborators may delay, provide insufficient resources to, or modify or stop clinical trials for collaboration product candidates;
- collaborators could develop or acquire products outside of the collaboration that compete directly or indirectly with our products or product candidates;
- collaborators may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liability;
- disputes may arise between us and a collaborator that cause the delay or termination of the research, development or commercialization of our product candidates, or that result in costly litigation or arbitration that diverts management attention and resources;

- collaborations may be terminated and, if terminated, may result in a need for additional capital and personnel to pursue further development or commercialization of the applicable product candidates; and
- collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we may not have the exclusive right to commercialize such intellectual property.

The development and potential commercialization of our product candidates will require substantial additional capital to fund expenses. We may form or seek further strategic alliances, create joint ventures or collaborations, or enter into additional licensing arrangements with third parties that we believe will complement or augment our development and commercialization efforts with respect to our product candidates and any future product candidates that we may develop, including in territories outside the United States or for certain indications. These transactions can entail numerous operational and financial risks, including exposure to unknown liabilities, disruption of our business and diversion of our management's time and attention in order to manage a collaboration or develop acquired products, product candidates or technologies, incurrence of substantial debt or dilutive issuances of equity securities to pay transaction consideration or costs, higher than expected collaboration, acquisition or integration costs, write-downs of assets or goodwill or impairment charges, increased amortization expenses, difficulty and cost in facilitating the collaboration or combining the operations and personnel of any acquired business, impairment of relationships with key suppliers, manufacturers or customers of any acquired business due to changes in management and ownership and the inability to retain key employees of any acquired business. As a result, if we enter into acquisition or in-license agreements or strategic collaborations, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture, or if there are materially adverse impacts on our or the counterparty's operations resulting from COVID-19, which could delay our timelines or otherwise adversely affect our business. We also cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction or such other benefits that led us to enter into the arrangement.

In addition, we face significant competition in seeking appropriate strategic partners, and the negotiation process is time-consuming and complex. We may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our product candidates because they may be deemed to be at too early of a stage of development for collaborative effort, and third parties may not view our product candidates as having the requisite potential to demonstrate safety and efficacy. If and when we collaborate with a third-party for development and commercialization of a product candidate, we can expect to relinquish some or all of the control over the future success of that product candidate to the third-party. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of our technologies, product candidates and market opportunities. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and could determine that such a collaboration is more attractive than the one with us for our product candidate. We may also be restricted under any license agreements from entering into agreements on certain terms or at all with potential collaborators.

As a result of these risks, we may not be able to realize the benefit of our existing collaborations or any future collaborations or licensing agreements we may enter into. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators and changes to the strategies of the combined company. As a result, we may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of such product candidate, reduce or delay one or more of our other development programs, delay the potential commercialization or reduce the scope of any planned sales or marketing activities for such product candidate, or increase our expenditures and undertake development, manufacturing or commercialization activities at our own expense. If we elect to increase our expenditures to fund development, manufacturing or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

Our product candidates may also require specific components to work effectively and efficiently, and rights to those components may be held by others. We may be unable to in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, which would harm our business. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology. Any delays in entering into new collaborations or strategic partnership agreements related to our product candidates could delay the development and commercialization of our product candidates in certain geographies, which could harm our business prospects, financial condition, and results of operations.

Moreover, some of our owned and in-licensed patents or patent applications or future patents are or may be co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors

could market competing products and technology. In addition, we may need the cooperation of any such co-owners of our patents in order to enforce such patents against third parties, and such cooperation may not be provided to us. Furthermore, our owned and in-licensed patents may be subject to a reservation of rights by one or more third parties. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our product development pipeline, which may cause us to operate our business in a more costly or otherwise adverse manner that was not anticipated.

We own or license from third parties certain intellectual property rights necessary to develop our product candidates. The growth of our business will likely depend in part on our ability to acquire or in-license additional proprietary rights, including to advance our research or allow commercialization of our product candidates. In that event, we may be required to expend considerable time and resources to develop or license replacement technology. For example, our programs may involve additional technologies or product candidates that may require the use of additional proprietary rights held by third parties. Furthermore, other pharmaceutical companies and academic institutions may also have filed or are planning to file patent applications potentially relevant to our business. Our product candidates may also require specific formulations or other technology to work effectively and efficiently. These formulations or technology may be covered by intellectual property rights held by others. From time to time, in order to avoid infringing these third-party patents, we may be required to license technology from additional third parties to further develop or commercialize our product candidates. We may be unable to acquire or in-license any relevant third-party intellectual property rights, including any such intellectual property rights required to manufacture, use or sell our product candidates, that we identify as necessary or important to our business operations. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all, and, as a result, we may be unable to develop or commercialize the affected product candidates, which would harm our business. We may need to cease use of the compositions or methods covered by such third-party intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on such intellectual property rights, which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible. Even if we are able to obtain a license under such intellectual property rights, any such license may be non-exclusive, which may allow our competitors' access to the same technologies licensed to us.

Additionally, we sometimes collaborate with academic institutions to accelerate our preclinical research or development under written agreements with these institutions. Typically, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our program. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of such program and our business and financial condition could suffer.

The licensing and acquisition of third-party intellectual property rights is a competitive practice, and companies that may be more established, or have greater resources than we do, may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their larger size and cash resources or greater clinical development and commercialization capabilities. There can be no assurance that we will be able to successfully complete such negotiations and ultimately acquire the rights to the intellectual property surrounding the additional product candidates that we may seek to acquire.

We may be dependent on intellectual property licensed or sublicensed to us from, or for which development was funded or otherwise assisted by, government agencies, such as the National Institutes of Health, for development of our technology and product candidates.

Government agencies have provided and may in the future provide funding, facilities, personnel or other assistance in connection with the development of the intellectual property rights owned by or licensed to us. Such government agencies may have retained rights in such intellectual property, including the right to grant or require us to grant mandatory licenses or sublicenses to such intellectual property to third parties under certain specified circumstances, including if it is necessary to meet health and safety needs that we are not reasonably satisfying or if it is necessary to meet requirements for public use specified by federal regulations, or to manufacture products in the United States. Any exercise of such rights, including with respect to any such required sublicense of these licenses, could result in the loss of significant rights and could harm our ability to commercialize or continue commercializing licensed products. For example, at least one of our in-licensed patent cases related to each of our *ex vivo* cell engineering and *in vivo* cell engineering platforms has been funded at least in part by the U.S. government. As a result, these patent cases are subject to certain federal regulations pursuant to the Bayh-Dole Act of 1980 (Bayh-Dole Act). In particular, the federal government retains a "nonexclusive, nontransferable, irrevocable, paid-up license" for its own benefit to inventions produced with its financial assistance. The Bayh-Dole Act also provides federal agencies with "march-in rights." March-in rights allow the government, in specified

circumstances, to require the contractors or successors in title to the patent to grant a "nonexclusive, partially exclusive, or exclusive license" to a "responsible applicant or applicants." If the patent owner refuses to do so, the government may grant the license itself. Intellectual property discovered under government-funded programs are also subject to certain reporting requirements, compliance with which may require us or our licensors to expend substantial resources and failure to comply may lead to loss of rights. Such intellectual property is also subject to a preference for U.S. industry, which may limit our ability to contract with foreign product manufacturers for products covered by such intellectual property. Moreover, we sometimes collaborate with academic institutions to accelerate our preclinical research or development, and we cannot be sure that any co-developed intellectual property will be free from government rights pursuant to the Bayh-Dole Act. If, in the future, we co-own or license in technology which is critical to our business that is developed in whole or in part with federal funds subject to the Bayh-Dole Act, our ability to enforce or otherwise exploit patents covering such technology may be adversely affected.

If we are unable to obtain and maintain sufficient intellectual property protection for our platform technologies and product candidates, or if the scope of the intellectual property protection is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be adversely affected.

We anticipate that we will file additional patent applications both in the United States and in other countries, as appropriate. However, we cannot predict:

- if and when any patents will issue;
- the degree and range of protection any issued patents will afford us against competitors, including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- whether others will apply for or obtain patents claiming aspects similar to those covered by our patents and patent applications;
- whether we will need to initiate litigation or administrative proceedings to defend our patent rights, which may be costly whether we win or lose; or
- whether the patent applications that we own or in-license will result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our platform technologies and product candidates. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel discoveries and technologies that are important to our business.

Obtaining and enforcing patents is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications or maintain and/or enforce patents that may issue based on our patent applications at a reasonable cost or in a timely manner, including as a result of the COVID-19 pandemic impacting our or our licensors' operations. It is also possible that we will fail to identify patentable aspects of our research and development results before it is too late to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, contract research organizations, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach these agreements and disclose such results before a patent application is filed, thereby jeopardizing our ability to seek patent protection.

Composition of matter patents for biological and pharmaceutical products such as *in vivo* and *ex vivo* cell engineering product candidates often provide a strong form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of use. We cannot be certain, however, that the claims in our pending patent applications covering the composition of matter of our product candidates will be considered patentable by the USPTO, or by patent offices in foreign countries, or that the claims in any of our issued patents will be considered valid and enforceable by courts in the United States or foreign countries. Method of use patents protect the use of a product for the specified method. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their product for our targeted indications, physicians may prescribe these products "off-label" for those uses that are covered by our method of use patents. Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute.

The strength of patents in the biotechnology and pharmaceutical field can be uncertain, and evaluating the scope of such patents involves complex legal, factual and scientific analyses and has in recent years been the subject of much litigation, resulting in court decisions, including Supreme Court decisions, which have increased uncertainties as to the ability to enforce patent rights in the

future. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries. Even if the patents do successfully issue, third parties may challenge the validity, enforceability, or scope thereof, which may result in such patents being narrowed, invalidated, or held unenforceable. In the event of litigation or administrative proceedings, we cannot be certain that the claims in any of our issued patents will be considered valid by courts in the United States or foreign countries. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing their products to avoid being covered by our claims. If the breadth or strength of protection provided by the patent applications we hold with respect to our product candidates is threatened, this could dissuade companies from collaborating with us to develop, and could threaten our ability to commercialize, our product candidates. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States, or vice versa. Further, if we encounter delays in our clinical trials, the period of time during which we could market our product candidates under patent protection would be reduced.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our products.

We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our product candidates in any jurisdiction. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our products. We may incorrectly determine that our products are not covered by a third-party patent or may incorrectly predict whether a third-party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect, which may negatively impact our ability to develop and market our product candidates. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products.

One aspect of the determination of patentability of our inventions depends on the scope and content of the "prior art," information that was or is deemed available to a person of skill in the relevant art prior to the priority date of the claimed invention. There may be prior art of which we are not aware that may affect the patentability of our patent claims or, if issued, affect the validity or enforceability of a patent claim. Further, we may not be aware of all third-party intellectual property rights potentially relating to our product candidates or their intended uses, and as a result the impact of such third-party intellectual property rights upon the patentability of our own patents and patent applications, as well as the impact of such third-party intellectual property upon our freedom to operate, is highly uncertain. Because patent applications in the United States and most other countries are confidential for typically a period of 18 months after filing, or may not be published at all, we cannot be certain that we were the first to file any patent application related to our product candidates. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Furthermore, for U.S. applications in which all claims are entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third party or instituted by the USPTO to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. For U.S. applications containing a claim not entitled to priority before March 16, 2013, there is a greater level of uncertainty in the patent law in view of the passage of the America Invents Act, which brought into effect significant changes to the U.S. patent laws, including new procedures for challenging pending patent applications and issued patents.

Our patents or pending patent applications may be challenged in the courts or patent offices in the United States and abroad. For example, we may be subject to a third-party pre-issuance submission of prior art to the USPTO or become involved in post-grant review procedures, oppositions, derivations, reexaminations, or *inter partes* review proceedings, in the United States or elsewhere, challenging our patent rights or the patent rights of others. An adverse determination in any such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated, or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. In addition, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. Any failure to obtain or maintain patent protection with respect to our product candidates could have a material adverse effect on our business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats to our competitive advantage.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make product candidates that are similar to ours but that are not covered by the claims of the patents that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to make the inventions covered by the issued patent or pending patent application that we own or have exclusively licensed;
- we or our licensors or future collaborators might not have been the first to file patent applications covering certain of our inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our pending patent applications will not lead to issued patents;
- issued patents that we own or have exclusively licensed may be held invalid or unenforceable, as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- we cannot predict the scope of protection of any patent issuing based on our patent applications, including whether the patent applications that we own or in-license will result in issued patents with claims that cover our product candidates or uses thereof in the United States or in other foreign countries;
- the claims of any patent issuing based on our patent applications may not provide protection against competitors or any competitive advantages, or may be challenged by third parties;
- if enforced, a court may not hold that our patents are valid, enforceable and infringed;
- we may need to initiate litigation or administrative proceedings to enforce and/or defend our patent rights which will be costly whether we win or lose;
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property;
- we may fail to adequately protect and police our trademarks and trade secrets; and
- the patents of others may have an adverse effect on our business, including if others obtain patents claiming subject matter similar to or improving that covered by our patents and patent applications.

Should any of these events occur, they could significantly harm our business, results of operations and prospects.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to the protection afforded by patents, we seek to rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce, and any other elements of our product candidates, technology and product discovery and development processes that involve proprietary know-how, information, or technology that is not covered by patents. Any disclosure, either intentional or unintentional, by our employees, the employees of third parties with whom we share our facilities or third-party consultants and vendors that we engage to perform research, clinical trials or manufacturing activities, or misappropriation by third parties (such as through a cybersecurity breach) of our trade secrets or proprietary information could enable competitors to duplicate or surpass our technological achievements, thus eroding our competitive position in our market. Because we expect to rely on third parties in the development and manufacture of our product candidates, we must, at times, share trade secrets with them. Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed.

Trade secrets and confidential information, however, may be difficult to protect. We seek to protect our trade secrets, know-how and confidential information, including our proprietary processes, in part, by entering into confidentiality agreements with our

employees, consultants, outside scientific advisors, contractors, and collaborators. We require our employees to enter into written employment agreements containing provisions of confidentiality and obligations to assign to us any inventions generated in the course of their employment. In addition, we enter into agreements with our consultants, contractors, and outside scientific collaborators that typically include invention assignment obligations. We cannot guarantee that we have entered into such agreements with each party that may have or has had access to our trade secrets or proprietary technology and processes. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, outside scientific advisors, contractors, and collaborators might intentionally or inadvertently disclose our trade secret information to competitors. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third-party, we would have no right to prevent them from using that technology or information to compete with us. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, or misappropriation of our intellectual property by third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results, and financial condition.

Third-party claims of intellectual property infringement against us or our collaborators may prevent or delay our product discovery and development efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, derivation, *inter partes* review, post-grant review and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. Furthermore, patent reform and changes to patent laws add uncertainty to the possibility of challenge to our patents in the future. We cannot assure you that our product candidates and other proprietary technologies we may develop will not infringe existing or future patents owned by third parties. Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming and, even if resolved in our favor, is likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Numerous U.S. and foreign issued patents and pending patent applications owned by third parties exist in the fields in which we are developing our product candidates. We cannot provide any assurances that third-party patents do not exist which might be enforced against our current product candidates or future products, resulting in either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others. Third parties may assert that we infringe their patents or other intellectual property, or that we are otherwise employing their proprietary technology without authorization, and may sue us. There may be third-party patents of which we are currently unaware with claims to compositions, formulations, methods of manufacture, or methods of use or treatment that cover our product candidates. It is also possible that patents owned by third parties of which we are aware, but which we do not believe are relevant to our product candidates and other proprietary technologies we may develop, could be found to be infringed by our product candidate. Because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that our product candidates may infringe. In addition, third parties, our competitors in both the United States and abroad, many of which have substantially greater resources and have made substantial investments in patent portfolios and competing technologies, may obtain patents in the future that may prevent, limit or otherwise interfere with our ability to make, use and sell our product candidates, and may claim that use of our technologies or the manufacture, use, or sale of our product candidates infringes upon these patents. If any such third-party patents were held by a court of competent jurisdiction to cover our technologies or product candidates, or if we are found to otherwise infringe a third-party's intellectual property rights, the holders of any such patents may be able to block, including by court order, our ability to develop, manufacture or commercialize the applicable product candidate unless we obtain a license under the applicable patents or other intellectual property, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our

competitors access to the same technologies licensed to us. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business.

The pharmaceutical and biotechnology industries have produced a considerable number of patents, and it may not always be clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. If we were sued for patent infringement, we would need to demonstrate that our product candidates, products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid or unenforceable, and we may not be able to do this. Proving invalidity may be difficult. For example, in the United States, proving invalidity in court requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents, and there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. Even if we are successful in these proceedings, we may incur substantial costs, and the time and attention of our management and scientific personnel could be diverted in pursuing these proceedings, which could have a material adverse effect on our business and operations. In addition, we may not have sufficient resources to bring these actions to a successful conclusion.

Third parties asserting their patent or other intellectual property rights against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates or force us to cease some of our business operations. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, cause development delays, and may impact our reputation. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties, or redesign our infringing products, which may be impossible on a cost-effective basis or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

Issued patents covering our product candidates could be found invalid or unenforceable if challenged in court or before the USPTO or comparable foreign authority.

If we or one of our licensing partners initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim we infringe their patents or that the patent covering our product candidate is invalid or unenforceable, or both. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent, including lack of novelty, obviousness, non-enablement or insufficient written description or that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, *inter partes* review, post-grant review, and equivalent proceedings in foreign jurisdictions, such as opposition or derivation proceedings. Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover and protect our product candidates. The outcome following legal assertions of invalidity and unenforceability is unpredictable. In any patent infringement proceeding, there is a risk that a court will decide that a patent of ours is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that our patent claims do not cover the invention, or decide that the other party's use of our patented technology falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1). With respect to the validity of our patents, for example, we cannot be certain that there is no invalidating prior art of which we, our patent counsel, and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our product candidates, and such an outcome may limit our ability to assert our patents against those parties or other competitors and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Such a loss of patent protection could have a material adverse impact on our business. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. Although an inadvertent lapse, including due to the effect of the COVID-19 pandemic on us or our patent maintenance vendors, can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents. In any such event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

The lives of our patents may not be sufficient to effectively protect our products and business.

Patents have a limited lifespan. In the United States, if all maintenance fees are paid timely, the natural expiration of a patent is generally 20 years after its first effective nonprovisional filing date. Although various extensions may be available, the life of a patent, and the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such product candidates are commercialized. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be open to competition from biosimilar or generic medications. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing product candidates similar or identical to ours. Our patents issued as of October 30, 2020 will expire on dates ranging from 2023 to 2037, subject to any patent extensions that may be available for such patents. If patents are issued on our patent applications pending as of October 30, 2020, the resulting patents are projected to expire on dates ranging from 2023 to 2041. In addition, although upon issuance in the United States a patent's life can be increased based on certain delays caused by the USPTO, this increase can be reduced or eliminated based on certain delays caused by the patent applicant during patent prosecution. A patent term extension based on regulatory delay may be available in the United States. However, only a single patent can be extended for each marketing approval, and any patent can be extended only once, for a single product. Moreover, the scope of protection during the period of the patent term extension does not extend to the full scope of the claim, but instead only to the scope of the product as approved. Laws governing analogous patent term extensions in foreign jurisdictions vary widely, as do laws governing the ability to obtain multiple patents from a single patent family. Additionally, we may not receive an extension if we fail to exercise due diligence during the testing phase or regulatory review process, apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. If we are unable to obtain patent term extension or restoration, or the term of any such extension is less than we request, the period during which we will have the right to exclusively market our product will be shortened and our competitors may obtain approval of competing products following our patent expiration and may take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data to launch their product earlier than might otherwise be the case, and our revenue could be reduced, possibly materially. If we do not have sufficient patent life to protect our products, our business and results of operations will be adversely affected.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We may be subject to claims that former employees, collaborators, or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our product candidates or as a result of questions regarding co-ownership of potential joint inventions. For example, we may have inventorship disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such intellectual property. Litigation may be necessary to defend against these and other claims challenging inventorship. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

We or our licensors may have relied on third-party consultants or collaborators or on funds from third parties, such as the U.S. government, such that we or our licensors are not the sole and exclusive owners of the patents we in-licensed. If other third parties have ownership rights or other rights to our patents, including in-licensed patents, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, results of operations, and prospects.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our current or future trademarks or trade names may be challenged, infringed, circumvented or declared generic or descriptive determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. During trademark registration proceedings, we may receive rejections of our applications by the USPTO or in other foreign jurisdictions. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected. We may license our trademarks and trade names to third parties, such as distributors. Though these license agreements may provide guidelines for how our trademarks and trade names may be used, a breach of these agreements or misuse of our trademarks and tradenames by our licensees may jeopardize our rights in or diminish the goodwill associated with our trademarks and trade names.

Moreover, any name we have proposed to use with our product candidate in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. Similar requirements exist in Europe. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. If the FDA (or an equivalent administrative body in a foreign jurisdiction) objects to any of our proposed proprietary product names, it may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. Furthermore, in many countries, owning and maintaining a trademark registration may not provide an adequate defense against a subsequent infringement claim asserted by the owner of a senior trademark. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. If we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

Our internal computer systems, or those used by our third-party research institution collaborators, CROs, CDMOs, or other contractors or consultants, may fail or suffer security breaches.

We are increasingly dependent upon information technology systems, infrastructure and data to operate our business. In the ordinary course of business, we collect, store and transmit confidential information (including but not limited to intellectual property, proprietary business information and personal information). It is critical that we do so in a secure manner to maintain the confidentiality and integrity of such confidential information. We also have outsourced elements of our operations to third parties, and as a result we manage a number of third-party contractors who have access to our confidential information, including third party vendors of IT and data security systems and services. While we generally have agreements requiring such vendors to use industry standard practices for data security, we have no operational control over them.

Despite the implementation of security measures (including edge technology designed to identify and protect our network from infiltration by third party systems), our internal computer systems and those of our CROs, CDMOs, and other contractors and consultants as well as third party vendors of IT and data security systems and services are vulnerable to damage and interruptions from security breaches, computer viruses, ransomware, fraud and similar incidents involving the loss or unauthorized access of confidential information. One such third party vendor is SolarWinds Corporation (SolarWinds), a provider of IT monitoring and management products and services, including its Orion Platform products, which are used by over 30,000 businesses, including ours. SolarWinds experienced a cyberattack that appears likely to be the result of a supply chain attack by an outside nation state. SolarWinds has stated that, as a result of the attack, software updates related to its Orion Platform products delivered between March and June 2020 included vulnerabilities, and that its investigation is ongoing. Since being notified of the attack, we have taken steps to mitigate the vulnerabilities identified within the Orion Platform products. Although investigations remain ongoing regarding the extent to which our confidential information was accessed, lost or stolen as a result of this cyberattack on SolarWinds, any such access, loss or theft could have a materially adverse effect on our business.

While we have not to our knowledge experienced any material system failure, accident or security breach to date, because techniques used to obtain unauthorized access to or to sabotage systems are constantly evolving, change frequently, and generally are not recognized until they are launched against a target, we cannot be sure that our continued data protection efforts and investment in information technology will prevent future significant breakdowns, data leakages, breaches in our systems or the systems of our third party contractors and collaborators, or other cyber incidents that could have a material adverse effect upon our reputation, business, operations or financial condition. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our programs and the development of our product candidates could be delayed. For example, the loss of or inability to access clinical trial data for our product candidates could result in delays in further development and commercialization of our product candidates and in our regulatory and marketing approval efforts and significantly increase our costs to recover or reproduce the data. Furthermore, significant disruptions or security breaches of our internal information technology systems or our third party contractors and collaborators' information technology systems could result in the loss, misappropriation, and/or unauthorized access, use, or disclosure of, or the prevention of access to, our confidential information (including trade secrets or other intellectual property, proprietary business information, and personal information), which could also result in financial, legal, business, and reputational harm to us. Any such event that leads to unauthorized access, use, or disclosure of personal information, including personal information regarding our clinical trial subjects or employees, could delay further development and commercialization of our product candidates, harm our reputation directly, require us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information, which could result in significant legal and financial exposure and reputational damages that could potentially have an adverse effect on our business.

We have and will continue to enter into collaboration, license, contract research and/or manufacturing relationships with contract organizations that operate in certain countries that are at heightened risk of theft of technology, data and intellectual property through direct intrusion by private parties or foreign actors, including those affiliated with or controlled by state actors. Accordingly, our efforts to protect and enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license, and we may be at heightened risk of losing our proprietary intellectual property rights around the world, including outside of such countries, to the extent such theft or intrusion destroy the proprietary nature of our intellectual property.

Risks Related to Ownership of Our Common Stock

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of June 30, 2021, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates owned approximately 64.7% of our outstanding voting stock. Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders.

Future sales of our common stock in the public market could cause our common stock price to fall.

Our common stock price could decline as a result of sales of a large number of shares of common stock or the perception that these sales could occur. These sales, or the possibility that these sales may occur, might also make it more difficult for us to sell equity securities in the future at a time and price that we deem appropriate. As of June 30, 2021, 187.8 million shares of our common stock were outstanding. Substantially all shares of common stock sold in our IPO (excluding any shares sold to our directors or officers in the directed share program) are freely tradable without restriction or further registration under the Securities Act of 1933, as amended (Securities Act), unless held by our "affiliates" as defined in Rule 144 under the Securities Act. Shares issued upon the exercise of stock options outstanding under our equity incentive plans or pursuant to future awards granted under those plans will become available for sale in the public market to the extent permitted by the provisions of applicable vesting schedules, as well as Rules 144 and 701 under the Securities Act. As of June 30, 2021, the holders of approximately 134.1 million shares of our common stock, or 71.4% of our outstanding shares, will have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or our other stockholders. We also registered the offer and sale of all shares of common stock that we may issue under our equity compensation plans. Accordingly, these shares may be able to be sold in the public market upon issuance. In addition, in the future, we may issue additional shares of common stock, or other equity or debt securities convertible into common stock, in connection with a financing, acquisition, employee arrangement, or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause the price of our common stock to decline.

We do not currently intend to pay dividends on our common stock and, consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation of the value of our common stock.

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to support operations and to finance the growth and development of our business. We do not intend to declare or pay any cash dividends on our capital stock in the foreseeable future. As a result, any investment return on our common stock will depend upon increases in the value for our common stock, which is not certain.

Provisions in our amended and restated certificate of incorporation and our amended and restated bylaws and Delaware law might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the market price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could depress the market price of our common stock by acting to discourage, delay, or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- establish a staggered Board divided into three classes serving staggered three-year terms, such that not all members of the Board will be elected at one time;
- authorize our Board to issue new series' of preferred stock without stockholder approval and create, subject to applicable law, a series of preferred stock with preferential rights to dividends or our assets upon liquidation, or with superior voting rights to our existing common stock;
- eliminate the ability of our stockholders to call special meetings of stockholders;
- eliminate the ability of our stockholders to fill vacancies on our Board;
- establish advance notice requirements for nominations for election to our Board or for proposing matters that can be acted upon by stockholders at our annual stockholder meetings;
- permit our Board to establish the number of directors;
- provide that our Board is expressly authorized to make, alter or repeal our amended bylaws;
- provide that stockholders can remove directors only for cause and only upon the approval of not less than 66 2/3% of all outstanding shares of our voting stock;
- require the approval of not less than 66 2/3% of all outstanding shares of our voting stock to amend our bylaws and specific provisions of our certificate of incorporation; and
- the jurisdictions in which certain stockholder litigation may be brought.

As a Delaware corporation, we will be subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in a business combination specified in the statute with an interested stockholder (as defined in the statute) for a period of three years after the date of the transaction in which the person first becomes an interested stockholder, unless the business combination is approved in advance by a majority of the independent directors or by the holders of at least two-thirds of the outstanding disinterested shares. The application of Section 203 of the Delaware General Corporation Law could also have the effect of delaying or preventing a change of control of our company.

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

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum, to the fullest extent permitted by law, for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a breach of a fiduciary duty owed by any director, officer or other employee to us or our stockholders, (iii) any action asserting a claim against us or any director, officer, or other employee arising pursuant to the Delaware General Corporation Law, (iv) any action to interpret, apply, enforce, or determine the validity of our second amended and restated certificate of incorporation or amended and restated bylaws, or (v) any other action asserting a claim that is governed by the internal affairs doctrine, shall be the Court of Chancery of the State of Delaware (or another state court or the federal court located within the State of Delaware if the Court of Chancery does not have or declines to accept jurisdiction), in all cases subject to the court's having jurisdiction over indispensable parties named as defendants. In addition, our amended and restated certificate of incorporation provides that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act but that the forum selection provision will not apply to claims brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended (Exchange Act).

Although we believe these provisions benefit us by providing increased consistency in the application of Delaware law for the specified types of actions and proceedings, the provisions may have the effect of discouraging lawsuits against us or our directors and officers. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, financial condition, and operating results. For example, under the Securities Act, federal courts have concurrent jurisdiction over all suits brought to enforce any duty or liability created by the Securities Act, and investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Any person or entity purchasing or otherwise acquiring any interest in our shares of capital stock shall be deemed to have notice of and consented to this exclusive forum provision, but will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Under the Tax Cuts and Jobs Act of 2017, as modified by the Coronavirus Aid, Relief, and Economic Stability Act, or CARES Act, our federal net operating losses, or NOLs, generated in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal NOLs in tax years beginning after December 31, 2020, is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to the Tax Cuts and Jobs Act of 2017, or the CARES Act. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards, or NOLs, and other pre-change tax attributes (such as research and development tax credits) to offset its post-change income or taxes may be limited. We may have experienced ownership changes in the past and may experience ownership changes as a result of subsequent shifts in our stock ownership (some of which are outside our control). As a result, our ability to use our pre-change NOLs and tax credits to offset post-change taxable income, if any, could be subject to limitations. Similar provisions of state tax law may also apply. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. For example, California recently imposed limits on the usability of California state NOLs and tax credits to offset California taxable income in tax years beginning after 2019 and before 2023. As a result, even if we attain profitability, we may be unable to use a material portion of our NOLs and tax credits.

General Risk Factors

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

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our operations with our existing cash, cash equivalents, and marketable securities, any future equity or debt financings, and upfront, milestone, and royalties payments, if any, received under any future licenses or collaborations. If we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a holder of our common stock. In addition, the possibility of such issuance may cause the market price of our common stock to decline. Debt financing, if available, may result in increased fixed payment obligations and involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends, or acquiring, selling, or licensing intellectual property rights or assets, which could adversely impact our ability to conduct our business.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution, or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, technologies, future revenue streams, or product candidates or grant licenses on terms that may not be favorable to us. We could also be required to seek funds through arrangements with collaborators or others at an earlier stage than otherwise would be desirable. Any of these occurrences may have a material adverse effect on our business, operating results, and prospects.

We or the third parties upon whom we depend may be adversely affected by earthquakes or other natural disasters, and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Our corporate headquarters and other facilities, including the industrial space we lease on which we plan to build out and operate our manufacturing facility, are located in areas that have experienced significant natural disasters, including the San Francisco Bay Area and Seattle, Washington, each of which have experienced severe effects from wildfires and, in the case of the San Francisco Bay Area, severe earthquakes. We do not carry earthquake insurance. Earthquakes, wildfires or other natural disasters could severely disrupt our operations, and could materially and adversely affect our business, financial condition, results of operations and prospects.

If a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our headquarters, that damaged critical infrastructure or that otherwise disrupted operations, it may be difficult or, in certain cases, impossible, for us to continue our business for a substantial period of time. The disaster recovery and business continuity plans we have in place currently are limited and are unlikely to prove adequate in the event of a serious disaster or similar event. We may incur substantial expenses as a result of the limited nature of our disaster recovery and business continuity plans, which, particularly when taken together with our lack of earthquake insurance, could have a material adverse effect on our business.

In addition, if in the future a natural disaster, power outage or other event occurred that prevented us from using all or a significant portion of our manufacturing facility, we may not be able to conduct our clinical trials or commercialize our products in accordance with our timelines or at all. Furthermore, integral parties in our supply chain are similarly vulnerable to natural disasters or other sudden, unforeseen and severe adverse events. If such an event were to affect our manufacturing facility or our supply chain, it could have a material adverse effect on our business.

We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws, and anti-money laundering laws and regulations. Compliance with these legal standards could impair our ability to compete in domestic and international markets. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, the U.S. Foreign Corrupt Practices Act of 1977, as amended (FCPA), the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors, and other collaborators from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties to sell our products outside the United States, to conduct clinical trials, and/or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors, and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

The withdrawal of the United Kingdom from the European Union, commonly referred to as "Brexit," may adversely impact our ability to obtain regulatory approvals of our product candidates in the European Union, result in restrictions or imposition of taxes and duties for importing our product candidates into the European Union, and may require us to incur additional expenses in order to develop, manufacture and commercialize our product candidates in the European Union.

Following the result of a referendum in 2016, the United Kingdom left the European Union on January 31, 2020, commonly referred to as "Brexit." Pursuant to the formal withdrawal arrangements agreed between the United Kingdom and the European Union, the United Kingdom was subject to a transition period until December 31, 2020 (the Transition Period), during which time EU rules continued to apply. Negotiations between the United Kingdom and the European Union continue in relation to the customs and trading relationship between the United Kingdom and the European Union following the expiry of the Transition Period.

Since a significant proportion of the regulatory framework in the United Kingdom applicable to our business and our product candidates is derived from EU directives and regulations, Brexit, could materially impact the regulatory regime with respect to the development, manufacture, importation, approval and commercialization of our product candidates in the United Kingdom or the European Union. For example, as a result of the uncertainty surrounding Brexit, the EMA relocated to Amsterdam from London. Following the Transition Period, the United Kingdom is no longer be covered by the centralized procedures for obtaining EU-wide marketing authorization from the EMA and, unless a specific agreement is entered into, a separate process for authorization of drug products, including our product candidates, will be required in the United Kingdom, the potential process for which is currently unclear. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a result of Brexit or otherwise, would prevent us from commercializing our product candidates in the United Kingdom or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. In addition, we may be required to pay taxes or duties or be subjected to other hurdles in connection with the importation of our product candidates into the European Union, or we may incur expenses in establishing a manufacturing facility in the European Union in order to circumvent such hurdles. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom or the European Union for our product candidates, or incur significant additional expenses to operate our business, which could significantly and materially harm or delay our ability to generate revenues or achieve profitability of our business. Any further changes in international trade, tariff and import/export regulations as a result of Brexit or otherwise may impose unexpected duty costs or other non-tariff barriers on us. These developments, or the perception that any of them could occur, may significantly reduce global trade and, in particular, trade between the impacted nations and the United Kingdom.

From the beginning of 2021 (when the Transitional Period expired), we have been required to comply with the GDPR as well as the UK GDPR. Each regime has the ability to fine us up to the greater of €20 million (£17.5 million) or 4% of global turnover for non-compliance. The relationship between the UK and the EU in relation to transfers of personal data from the EU to the UK is not fully settled by the Brexit Trade and Cooperation Agreement (TCA). Instead, the TCA establishes a four- to six-month grace period during which transfers of personal data from the EU to the UK can continue without additional safeguards, provided that the UK maintains its pre-TCA data protection laws. During this time, the European Commission may adopt a UK adequacy decision which organizations can then rely on for EU to UK personal data transfers but, if no UK adequacy decision is adopted, the UK will be considered a third country at the end of the grace period and we will be required to implement additional safeguards for personal data transfers —some of which are subject currently being scrutinized or challenged—which could lead to additional costs and increase our overall risk exposure.

Even if approved, our products may not gain market acceptance, in which case we may not be able to generate product revenues, which will materially adversely affect our business, financial condition, and results of operations.

Even if the FDA or any comparable foreign regulatory authority approves the marketing of any product candidates that we develop, physicians, healthcare providers, patients, or the medical community may not accept or use them. Additionally, the product candidates that we are developing are based on our proprietary platforms, which are new technologies. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenues or any profits from operations. The degree of market acceptance of any of our product candidates will depend on a variety of factors, including:

- the timing of market introduction;
- the terms of any approvals and the countries in which approvals are obtained;
- the number and clinical profile of competing products;
- our ability to provide acceptable evidence of safety and efficacy;
- the prevalence and severity of any side effects;
- relative convenience and ease of administration;
- cost-effectiveness;
- patient diagnostics and screening infrastructure in each market;
- marketing and distribution support;
- adverse publicity about our product candidates;
- availability of coverage, adequate reimbursement and sufficient payment from health maintenance organizations and other insurers, both public and private, for our product candidates, or the procedures utilizing our product candidates, if approved;
- the willingness of patients to pay out-of-pocket in the absence of coverage by third-party payors and government authorities; and
- other potential advantages over alternative treatment methods.

In addition, although we are not utilizing replication competent vectors, adverse publicity due to the ethical and social controversies surrounding the therapeutic use of such technology, and reported side effects from any clinical trials using these technologies or the failure of such trials to demonstrate that these therapies are safe and effective may limit market acceptance of our product candidates. If our product candidates are approved but fail to achieve market acceptance among physicians, patients, hospitals, cancer treatment centers or others in the medical community, we will not be able to generate significant revenue.

If our product candidates fail to gain market acceptance, this will have a material adverse impact on our ability to generate revenues to provide a satisfactory, or any, return on our investments. Even if some products achieve market acceptance, the market may prove not to be large enough to allow us to generate significant revenues.

We may not be able to protect our intellectual property rights throughout the world.

Patents are of national or regional effect, and filing, prosecuting, maintaining and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can have a different scope and strength than do those in the United States. In addition, the laws of some foreign countries, particularly certain developing countries, do not protect intellectual property rights to the same extent as federal and state

laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement rights are not as strong as those in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or adequate to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property, particularly those relating to biopharmaceutical products, which could make it difficult in those jurisdictions for us to stop the infringement or misappropriation of our patents or other intellectual property rights, or the marketing of competing products in violation of our proprietary rights. Proceedings to enforce our patent and other intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Furthermore, such proceedings could put our patents at risk of being invalidated, held unenforceable, or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims of infringement or misappropriation against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Similarly, if our trade secrets are disclosed in a foreign jurisdiction, competitors worldwide could have access to our proprietary information, and we may be without satisfactory recourse. Such disclosure could have a material adverse effect on our business. Moreover, our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws. In addition, certain developing countries, including China and India, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In those countries, we and our licensors may have limited remedies if patents are infringed or if we or our licensors are compelled to grant a license to a third-party, which could materially diminish the value of those patents. In addition, many countries limit the enforceability of patents against government agencies or government contractors. This could limit our potential revenue opportunities. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Because of the expense and uncertainty of litigation, we may conclude that even if a third-party is infringing our issued patents, any patents that may be issued as a result of our pending or future patent applications or other intellectual property rights, the risk-adjusted cost of bringing and enforcing such a claim or action, which typically last for years before they are concluded, may be too high or not in the best interest of our company or our stockholders, or it may be otherwise impractical or undesirable to enforce our intellectual property against some third parties. Our competitors or other third parties may be able to sustain the costs of complex patent litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. In such cases, we may decide that the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings and that the more prudent course of action is to simply monitor the situation or initiate or seek some other non-litigious action or solution. In addition, the uncertainties associated with litigation could compromise our ability to raise the funds necessary to continue our clinical trials, continue our internal research programs, in-license needed technology or other product candidates, or enter into development partnerships that would help us bring our product candidates to market.

We may be involved in lawsuits to protect or enforce our patents or other intellectual property or the intellectual property of our licensors, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe our patents or other intellectual property or the intellectual property of our licensors. To cease such infringement or unauthorized use, we may be required to file patent infringement claims, which can be expensive and time-consuming and divert the time and attention of our management and scientific personnel. Our pending patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. In addition, in an infringement proceeding or a declaratory judgment action, a court may decide that one or more of our patents is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceeding could put one or more of our patents at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business.

Interference or derivation proceedings provoked by third parties or brought by the USPTO may be necessary to determine the priority of inventions with respect to, or the correct inventorship of, our patents or patent applications or those of our licensors. An unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license

on commercially reasonable terms. Litigation, interference, derivation or other proceedings may result in a decision adverse to our interests and, even if we are successful, may result in substantial costs and distract our management and other employees.

Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity and is therefore costly, time-consuming, and inherently uncertain. Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs associated with and may diminish our ability to protect our inventions and obtain, maintain, and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our owned and licensed patents. Recent patent reform legislation in the United States and other countries, including the Leahy-Smith America Invents Act (the Leahy-Smith Act) signed into law on September 16, 2011, could increase those uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art and provide more efficient and cost-effective avenues for competitors to challenge the validity of patents. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. After March 2013, under the Leahy-Smith Act, the United States transitioned to a first inventor to file system in which, assuming that the other statutory requirements are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third-party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before we file an application covering the same invention, could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either (i) file any patent application related to our product candidates and other proprietary technologies we may develop or (ii) invent any of the inventions claimed in our or our licensor's patents or patent applications. Even where we have a valid and enforceable patent, we may not be able to exclude others from practicing the claimed invention where the other party can show that they used the invention in commerce before our filing date or the other party benefits from a compulsory license. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents once obtained. Depending on decisions by Congress, the federal courts, the USPTO and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. For example, in the 2013 case *Assoc. for Molecular Pathology v. Myriad Genetics, Inc.*, the U.S. Supreme Court held that certain claims to naturally-occurring substances are not patentable. Although we do not believe that any of the patents owned or licensed by us will be found invalid based on this decision, we cannot predict how future decisions by Congress, the federal courts or the USPTO may impact the value of our patents.

We may be subject to claims that our employees, consultants, or independent contractors have wrongfully used or disclosed confidential information of third parties.

We have received confidential and proprietary information from third parties. In addition, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants, or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or our employees' former employers or that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees. If our defenses to these claims fail, in addition to requiring us to pay monetary damages, a court could prohibit us from using technologies or features that are

essential to our product candidates, if such technologies or features are found to incorporate or be derived from the trade secrets or other proprietary information of the former employers. Moreover, any such litigation or the threat thereof may adversely affect our reputation, our ability to form strategic alliances or sublicense our rights to collaborators, engage with scientific advisors or hire employees or consultants, each of which would have an adverse effect on our business, results of operations and financial condition. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

Our stock price may be volatile or may decline regardless of our operating performance, resulting in substantial losses for investors.

The market price of our common stock may be highly volatile and may fluctuate substantially as a result of a variety of factors, some of which are related in complex ways. The market price of our common stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including the factors listed below and other factors describe in this "Risk Factors" section:

- the commencement, enrollment, or results of current and future preclinical studies and clinical trials and trials we may conduct, or changes in the development status of our product candidates;
- any delay in our regulatory filings for our product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including, without limitation, the issuance by the FDA of a "refusal to file" letter or a request for additional information;
- adverse results or delays in clinical trials;
- our decision to initiate a preclinical study or clinical trial, not to initiate a preclinical study or clinical trial or to terminate an existing preclinical study or clinical trial;
- adverse actions taken by regulatory agencies with respect to our preclinical studies or clinical trials, manufacturing supply chain or sales and marketing activities, including failure to receive regulatory approval of our product candidates;
- changes in laws or regulations, including, but not limited to, preclinical study or clinical trial requirements for approvals;
- any adverse changes to our relationship with manufacturers or suppliers;
- manufacturing, supply or distribution shortages;
- our failure to commercialize our product candidates;
- changes in the structure of healthcare payment systems;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to the use of our product candidates;
- disputes or other developments relating to proprietary rights, including patents, litigation matters, and our ability to obtain patent protection for our technologies;
- variations in our results of operations;
- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or *in vivo* and *ex vivo* cell engineering products in particular, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- announcements made by us or our competitors about new product and service offerings, success or setbacks related to product or service offerings that exist or are under development, acquisitions, strategic relationships, joint ventures, or capital commitments;
- our inability to establish collaborations, if needed;
- our ability to effectively manage our growth;
- the size and growth of our initial target markets;
- changes in the market valuations of similar companies;
- press reports, whether or not true, about our business;

- sales or perceived potential sales of our common stock by us or our stockholders in the future;
- overall fluctuations in the equity markets;
- ineffectiveness of our internal controls;
- changes in accounting practices or principles;
- changes or developments in the global regulatory environment;
- litigation involving us, our industry or both, or investigations by regulators into our operations or those of our competitors;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, the stock market in general, and biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. If the market price of our common stock does not exceed your purchase price, you may not realize any return on, and may lose some or all of, your investment.

Our quarterly operating results may fluctuate significantly or may fall below the expectations of investors or securities analysts, each of which may cause our stock price to fluctuate or decline.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- timing and variations in the level of expense related to the current or future development of our programs;
- timing and status of enrollment for our clinical trials;
- impacts from the COVID-19 pandemic on us or third parties with which we engage;
- results of clinical trials, or the addition or termination of clinical trials or funding support by us or potential future partners;
- our execution of any collaboration, licensing or similar arrangements, and the timing of payments we may make or receive under potential future arrangements or the termination or modification of any such potential future arrangements;
- any intellectual property infringement, misappropriation or violation lawsuit or opposition, interference or cancellation proceeding in which we may become involved;
- additions and departures of key personnel;
- strategic decisions by us or our competitors, such as acquisitions, divestitures, spin-offs, joint ventures, strategic investments or changes in business strategy;
- if any product candidate we may develop receive regulatory approval, the timing and terms of such approval and market acceptance and demand for such product candidates;
- the timing and cost to establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval and intend to commercialize on our own or jointly with current or future collaborators;
- regulatory developments affecting current or future product candidates or those of our competitors;
- the amount of expense or gain associated with the change in value of the success payments and contingent consideration; and
- changes in general market and economic conditions.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company's securities. This type of litigation, if instituted, could result in substantial costs and a diversion of management's attention and resources, which would harm our business, operating results, or financial condition. Additionally, the dramatic increase in the cost of directors' and officers' liability insurance may cause us to opt for lower overall policy limits or to forgo insurance that we may otherwise rely on to cover significant defense costs, settlements, and damages awarded to plaintiffs.

If securities or industry analysts either do not publish research about us or publish inaccurate or unfavorable research about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the trading price or trading volume of our common stock could decline.

The trading market for our common stock will be influenced in part by the research and reports that securities or industry analysts may publish about us, our business, our market, or our competitors. If one or more of these analysts initiate research with an unfavorable rating or downgrade our common stock, provide a more favorable recommendation about our competitors or publish inaccurate or unfavorable research about our business, our common stock price would likely decline. If any analyst who may cover us were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the trading price or trading volume of our common stock to decline.

We are an emerging growth company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to emerging growth companies, including:

- not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act);
- reduced disclosure obligations regarding executive compensation in our periodic reports and annual report on Form 10-K; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Our status as an emerging growth company will end as soon as any of the following takes place:

- the last day of the fiscal year in which we have more than $1.07 billion in annual revenue;
- the date we qualify as a "large accelerated filer," with at least $700 million of equity securities held by non-affiliates;
- the date on which we have issued, in any three-year period, more than $1.0 billion in non-convertible debt securities; or
- the last day of the fiscal year ending after the fifth anniversary of the completion of our initial public offering, which is December 31, 2026.

As of June 30, 2021, the fair market value of our common stock held by non-affiliates exceeded $700.0 million. Therefore, we will cease to be an emerging growth company as of December 31, 2021.

We cannot predict if investors will find our common stock less attractive if we choose to rely on any of the exemptions afforded to emerging growth companies. If some investors find our common stock less attractive because we rely on any of these exemptions, there may be a less active trading market for our common stock and the market price of our common stock may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to use this extended transition period for any new or revised accounting standards during the period in which we remain an emerging growth company (or we affirmatively and irrevocably opt out of the extended transition period); however, we may adopt certain new or revised accounting standards early. As a result, these financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

The requirements of being a public company may strain our resources, result in more litigation, and divert management's attention.

As a public company, we will be subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act), the listing requirements of Nasdaq, and other applicable securities rules and regulations. Complying with these rules and regulations has increased and will increase our legal and financial compliance costs, make some activities more difficult, time consuming or costly, and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly, and current reports with respect to our business and operating results. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are required to disclose changes made in our internal control and procedures on a quarterly basis. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could adversely affect our business and operating results. We may also need to hire additional employees or engage outside consultants to comply with these requirements, which will increase our costs and expenses.

In addition, changing laws, regulations, and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs, and making some activities more time consuming. These laws, regulations, and standards are subject to varying interpretations, in many cases due to their lack of specificity and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations, and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations, and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be adversely affected.

These new rules and regulations may make it more expensive for us to obtain director and officer liability insurance and, in the future, we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our Board, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

By disclosing information in the periodic filings required of a public company, our business and financial condition will become more visible, which we believe may result in threatened or actual litigation, including by competitors and other third parties. If those claims are successful, our business could be seriously harmed. Even if the claims do not result in litigation or are resolved in our favor, the time and resources needed to resolve them could divert our management's resources and seriously harm our business.

If we fail to maintain proper and effective internal controls over financial reporting our ability to produce accurate and timely financial statements could be impaired.

Pursuant to Section 404 of the Sarbanes-Oxley Act, our management will be required to report upon the effectiveness of our internal control over financial reporting beginning with the annual report for our fiscal year ending December 31, 2021. When we lose our status as an "emerging growth company" and become an "accelerated filer" or a "large accelerated filer," our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing, and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we will need to implement additional financial and management controls, reporting systems, procedures, and hire additional accounting and finance staff.

We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations, or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC, or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

We are subject to the periodic reporting requirements of the Exchange Act. We must design our disclosure controls and procedures to reasonably assure that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. For example, our directors or executive officers could inadvertently fail to disclose a new relationship or arrangement causing us to fail to make a required related party transaction disclosure. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

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

Recent Sales of Unregistered Securities

Unregistered securities sold by us from January 1, 2021 through June 30, 2021, for which share numbers have been adjusted to reflect the 1-for-4 reverse stock split which became effective on January 27, 2021, consisted of 73,289 shares of common stock issued upon the exercise of options for aggregate proceeds of approximately $0.1 million.

Use of Proceeds from our Initial Public Offering of Common Stock

On February 3, 2021, our Registration Statement on Form S-1 (File No. 333-252061) relating to our IPO was declared effective. On February 8, 2021, we closed our IPO and issued 27.0 million shares of common stock, including 3.5 million shares of common stock sold pursuant to the underwriters' full exercise of their option to purchase additional shares, at a public offering price of $25.00 per share, for aggregate net proceeds of $626.4 million. Morgan Stanley & Co. LLC, Goldman Sachs & Co. LLS, J.P. Morgan Securities LLC, and BofA Securities, Inc. acted as joint bookrunning managers of the IPO and as representatives of the underwriters. No offering expenses were paid directly or indirectly to any of our directors or officers (or their associates) or persons owning 10.0% or more of any class of our equity securities or to any other affiliates.

There has been no material change in the planned use of proceeds from the IPO from that described in the prospectus filed with the SEC pursuant to Rule 424(b)(4) under the Securities Act on February 3, 2021.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

(a)

Not applicable.

(b)

Not applicable.

Item 6. Exhibits

Exhibit Number	Description
3.1	Amended and Restated Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-39941), filed with the SEC on February 8, 2021).
3.2	Amended and Restated Bylaws (incorporated herein by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 001-39941), filed with the SEC on February 8, 2021).
4.1	Reference is made to Exhibits 3.1 through 3.2
4.2	Form of Common Stock Certificate (incorporated herein by reference to Exhibit 3.1 to the Company's Registration Statement on Form S-1 (File No. 333-252061), filed with the SEC on January 28, 2021).
10.1*†	Lease Agreement, effective July 13, 2021, by and between the Company and Pacific Commons Owner, LP.
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 Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*+	Certification of 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.

† Certain portions of this document that constitute confidential information have been redacted in accordance with Regulation S-K, Item 601(b)(10).

\+ The certification attached as Exhibit 32.1 and Exhibit 32.2 that accompany this Quarterly Report on Form 10-Q is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of the Company 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.

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.

Company Name

Date: August 4, 2021

By: /s/ Steven D. Harr, M.D.
Steven D. Harr, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

Date: August 4, 2021

By: /s/ Nathan Hardy
Nathan Hardy
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 10.1

CERTAIN CONFIDENTIAL INFORMATION IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) WOULD BE COMPETITIVELY HARMFUL IF PUBLICLY DISCLOSED

LEASE AGREEMENT

BETWEEN

PACIFIC COMMONS OWNER, LP,
a Delaware limited partnership,

AS LANDLORD

AND

SANA BIOTECHNOLOGY, INC.,
a Delaware corporation

AS TENANT

5567 Cushing Parkway
Fremont, California

LEASE AGREEMENT

This Lease Agreement ("**Lease**") is made and entered into as of July 13, 2021, by and between PACIFIC COMMONS OWNER, LP, a Delaware limited partnership ("**Landlord**") and SANA BIOTECHNOLOGY, INC., a Delaware corporation ("**Tenant**").

BASIC LEASE PROVISIONS

Premises:	Approximately 163,193 rentable square feet ("**RSF"**) as shown on Exhibit A attached hereto (the "**Premises**") consisting of the entire interior of the Building (as defined below).
Project:	"Pacific Commons South" consisting of a ten (10) building industrial project (the "**Project**") as further set forth on Exhibit A-1 attached hereto, owned by Landlord. The Project consists of such buildings, the legal parcel(s) on which such buildings are situated, and the other improvements located thereon.
Building:	The industrial building located at 5567 Cushing Parkway in the City of Fremont, County of Alameda, State of California (the "**Building**").
Tenant's Proportionate Share of Project:	9.5% (i.e., 163,193 RSF of the Premises / 1,718,490 RSF of the Project).
Tenant's Proportionate Share of Building:	100%.
Lease Term:	Beginning on the Commencement Date and ending on November 30, 2031.
Commencement Date:	July 9, 2021 (the "**Commencement Date**").
Option to Extend:	See Paragraph 45 herein.
Monthly Base Rent:	The monthly Base Rent during the initial Lease Term shall be as follows: Period of Lease Term:Monthly Base Rent:July 9, 2021 – June 30, 2022$[***] per monthJuly 1, 2022 – June 30, 2023$[***] per monthJuly 1, 2023 – June 30, 2024$[***] per monthJuly 1, 2024 – June 30, 2025$[***] per monthJuly 1, 2025 – June 30, 2026$[***] per monthJuly 1, 2026 – June 30, 2027$[***] per monthJuly 1, 2027 – June 30, 2028$[***] per monthJuly 1, 2028 – June 30, 2029$[***] per monthJuly 1, 2029 – June 30, 2030$[***] per monthJuly 1, 2030 – June 30, 2031$[***] per monthJuly 1, 2031 – November 30, 2031$[***] per month
Base Rent Credit:	See Paragraph 4(b) herein.
Initial Estimated Monthly Operating Expense Payments:	$[***] per month. Such amount does not include utilities, which are to be paid separately in accordance with Paragraph 7 herein.
Prepaid Rent:	$[***] (which amount represents one (1) months' worth of the initial Base Rent and initial estimated Operating Expenses) (the "Prepaid Rent").
Letter of Credit Amount:	$6,357,816.52. See Paragraph 5 herein.
Permitted Use:	Subject to compliance with Legal Requirements including applicable zoning regulations, general industrial, laboratory and warehouse use for manufacturing (including biotech manufacturing), assembly, storage, distribution and sales (but limited to wholesale sales) of products and merchandise made and/or distributed by Tenant, and incidental office and administrative use related thereto (the "**Permitted Use**").
Tenant's Notice Address:	Sana Biotechnology, Inc. 188 East Blain Street Seattle, WA 98102 Attn: Legal Department Sana Biotechnology, Inc. 188 East Blain Street Seattle, WA 98102 Attn: Director of Facilities
Landlord's Notice Address:	Pacific Commons Owner, LP [***]
Brokers:	CBRE, Inc. (Landlord's broker) CRESA (Tenant's broker)
Improvement Allowance:	$1,631,930.00.
Addenda:	Addendum 1 (Rules and Regulations); Exhibit A (Premises); Exhibit B (Base Building Specifications); Exhibit C (Tenant Work Letter); Exhibit D (Initial HazMat Certificate); Exhibit E (Additional Use Provisions) Exhibit F (Contractor Rules and Regulations); and Exhibit G (Form of Initial Letter of Credit)

LEASE

1. **Granting Clause; Lease Term; Early Access**.

(a) In consideration of the obligation of Tenant to pay rent as herein provided and in consideration of the other terms, covenants, and conditions hereof, Landlord leases to Tenant, and Tenant leases from Landlord, the Premises, to have and to hold for the Lease Term, subject to the terms, covenants and conditions of this Lease. The term of this Lease (the "**Lease Term**") shall commence on the Commencement Date specified in or established above, and except as otherwise provided herein, shall continue in full force and effect through the number of months provided in the Basic Lease Provisions; provided, however, that if the Commencement Date is a date other than the first day of a calendar month, the Lease Term shall consist of the remainder of the calendar month including and following the Commencement Date, plus said number of full calendar months. Tenant agrees to accept possession of the Premises at such time as Landlord is able to tender the same. After the Commencement Date, Tenant shall, upon demand, execute and deliver a letter of acceptance of delivery of the Premises specifying the Commencement Date and the expiration of the Lease Term. Subject to compliance with Legal Requirements, Tenant shall have the right to access the Premises twenty-four (24) hours per day, seven (7) days per week throughout the Lease Term.

(b) Subject to all Legal Requirements (as defined below), Tenant may have access to the Premises and Common Areas upon the mutual execution and delivery of this Lease solely for the purposes of performing inspections of the Premises and constructing and installing the Tenant Improvements (as defined in Exhibit C) and Tenant's racking, furniture, fixtures and equipment at the Premises. Notwithstanding the foregoing, in no event shall Tenant access or enter into the Premises until such time as Tenant has delivered to Landlord the Prepaid Rent, Letter of Credit and all other monetary amounts due, as well as written evidence that Tenant has fulfilled its obligation to provide insurance pursuant to the provisions of this Lease. Tenant agrees to coordinate with Landlord and Landlord's contractors during any such early access so as to minimize disruption of any ongoing work being performed by Landlord at the Project. Such early access to the Premises will not, in and of itself, advance the Commencement Date unless Tenant begins conducting business in any portion of the Premises (in which event the Commencement Date shall immediately occur). All of the provisions of this Lease shall apply to Tenant during any entry into the Premises prior to the Commencement Date, including, without limitation, the indemnities set forth in this Lease, but excluding only the obligation to pay Base Rent and Operating Expenses until the Commencement Date has occurred, whereupon Base Rent and Operating Expenses shall immediately commence. Notwithstanding anything to the contrary herein, Tenant shall be responsible for payment of all utility costs which are attributable to Tenant's activities at the Premises during any early entry by Tenant and Tenant shall pay such costs to Landlord promptly upon demand. During any early entry into the Premises, Landlord shall not be responsible for any loss, including theft, damage or destruction to any work or material installed or stored by Tenant at the Premises or for any injury to Tenant or its agents, employees, contractors, subcontractors, subtenants, assigns, licensees or invitees (each, a "**Tenant Party**"). Landlord shall have the right to post appropriate notices of non-responsibility in connection with any early entry by Tenant.

2. **Acceptance of Premises**. Subject to Landlord’s obligations expressly set forth in this Lease, including Exhibit C attached hereto, Tenant shall accept the Premises on the Commencement Date in its "as-is" condition, subject to all applicable laws, ordinances, regulations, covenants and restrictions, and Landlord shall have no obligation to perform or pay for any repair or other work therein. Landlord has made no representation or warranty as to the suitability of the Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Premises are suitable for Tenant's intended purposes. Tenant acknowledges and agrees that by taking possession of the Premises it shall be conclusive evidence that: (i) Tenant has inspected and accepted the Premises in an "As-Is, Where-Is" condition, (ii) the Building and improvements in the Premises are suitable for the purpose for which the Premises are leased and Landlord has made no warranty, representation, covenant, or agreement with respect to the merchantability or fitness for any particular purpose of the Premises, (iii) the Premises are in good and satisfactory condition at the time Tenant takes possession thereof, (iv) no representations as to the repair of the Premises, nor promises to alter, remodel or improve the Premises have been made by Landlord, and (v) there are no representations or warranties, expressed, implied or statutory, that extend beyond the description of the Premises, except to the extent expressly provided herein. Except as provided in Paragraph 10, in no event shall Landlord have any obligation for any defects in the Premises or any limitation on its use. The taking of possession of the Premises shall be conclusive evidence that Tenant accepts the Premises and that the Premises were in good condition at the time possession was taken except for items that are Landlord's responsibility under Paragraph 10, any punch-list items agreed to in writing by Landlord and Tenant.

3. **Use**.

(a) Subject to Tenant's compliance with all zoning ordinances and Legal Requirements, the Premises shall be used only for the Permitted Use and for no other use. To Landlord's Knowledge, as of the date of this Lease, Landlord does not know of any zoning information that prohibits Tenant from operating from the Premises for the Permitted Use. As of the date of this Lease, subject to Tenant's compliance with Legal Requirements, including without limitation, zoning ordinances, Landlord is not party to any third party agreement (such as, a prohibited use clause in a lease) that would prohibit Tenant from building-out or using the Premises for laboratory and biotech manufacturing purposes, and Landlord agrees not to consent in writing to any such restriction during the Term. Tenant shall not conduct or give notice of any auction, liquidation, or going out of business sales on the Premises. Tenant will use the Premises in a careful, safe and proper manner and will not commit waste, overload the floor or structure of the Premises or subject the Premises to use that would damage the Premises. Tenant shall not permit any objectionable or unpleasant odors, fumes, smoke, dust, gas, noise, or vibrations to emanate from the Premises, or take any other action that would constitute a nuisance or would disturb, interfere with, or endanger Landlord or any tenants of the Project. Outside storage, including without limitation, storage of trucks, vehicles or any of Tenant's personal property, products or merchandise, is strictly prohibited without Landlord's prior written consent, such consent not to be unreasonably withheld with regard to an outside mechanical yard area for Tenant's exclusive use, and for other minor outside use subject to compliance with Legal Requirements, review and approval of plans therefor by Landlord, and Landlord's reasonable rules and regulations with respect thereto (including appropriate screening of any such mechanical yard). Tenant shall not bring upon the Premises or any portion of the Building or Project or use the Premises or permit the Premises or any portion thereof to be used for the growing, manufacturing, administration, distribution (including without limitation, any retail sales), possession, use or consumption of any cannabis, marijuana or cannabinoid product or compound, or any other illicit drug under either State of California or United States law, regardless of the legality or illegality of the same. In addition, set forth on Exhibit E are additional provisions generally applicable to Tenant's use of the Premises as well as Tenant's use of portions of the Premises for laboratory and research and development purposes ("**Laboratory Use**").

(b) Tenant, at its sole expense, shall comply with all laws, including, without limitation, the Americans With Disabilities Act, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants, conditions and restrictions and all other matters of record now or hereafter applicable to the Premises, including without limitation, Appliable Laboratory Use Laws (collectively, "**Legal Requirements**"). The Premises shall not be used as a place of public accommodation under the Americans With Disabilities Act or similar state statutes or local ordinances or any regulations promulgated thereunder, all as may be amended from time to time. Tenant shall, at its expense, make any alterations or modifications to the Premises or the Building, that are required by Legal Requirements related to Tenant's specific use or occupation of the Premises. Further, if applicable to the Premises, Tenant shall, at its sole cost and expense, timely and fully comply with all obligations imposed upon "operators" under the Warehouse Indirect Source Rule or similar rule ("**Warehouse ISR**") to the extent implemented by the Bay Area Air Quality Management District ("**BAAQMD**"), including, without limitation, warehouse points compliance obligations, reporting, notification and recordkeeping requirements, and payment of mitigations fees, as applicable. Tenant will not use or permit the Premises to be used for any purpose or in any manner that would void Tenant's or Landlord's insurance, increase the insurance risk, or cause the disallowance of any sprinkler credits unless Tenant compensates Landlord for the extra insurance costs, or sprinkler credit loss, resulting from Tenant's particular use of the Premises. If any increase in the cost of any insurance on the Premises or the Project is caused by Tenant's particular use or improvement of the Premises, or because Tenant abandons the Premises, then Tenant shall pay the amount of such increase to Landlord. Any entrance into or occupation of the Premises by Tenant prior to the Commencement Date shall be subject to all non-monetary obligations of Tenant under this Lease.

(c) Landlord hereby discloses to Tenant, in accordance with California Civil Code Section 1938, and Tenant hereby acknowledges that the Premises have not undergone an inspection by a Certified Access Specialist (CASp) to determine whether the Premises meet all applicable construction-related accessibility standards pursuant to California Civil Code §55.51 et seq. As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually

agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." In furtherance of the foregoing, Landlord and Tenant hereby agree as follows: (i) any CASp inspection requested by Tenant shall be conducted, at Tenant's sole cost and expense, by a CASp reasonably approved in advance by Landlord; and (b) Landlord shall have no obligation to perform any work or repairs identified in any such CASp inspection.

(d) Tenant and its employees and invitees shall have the non-exclusive right to use, in common with others, all areas designated by Landlord from time to time as common areas for the use and enjoyment of all tenants and occupants of the Project (collectively, the "**Common Areas**"), including without limitation the driveways and parking area depicted on **Exhibit A** hereto. Tenant's use of Common Areas shall be subject to such reasonable rules and regulations as Landlord may promulgate from time to time pursuant to the terms and conditions of this Lease. During the Term, Landlord shall not direct other tenants or invitees (other than contractors and agents that have a reasonably need to access the parking area designated for the Premises) to park in parking spaces closest to Tenant's Premises nor shall Landlord enter into any parking agreements with non-tenants (i.e. fleet storage/parking) that would adversely impact access to or use of the parking area designated for the Premises.

4. **Base Rent**.

(a) Tenant shall pay monthly Base Rent in the amounts set forth on the first page of this Lease. The Prepaid Rent (as set forth in the Basic Lease Provisions above) shall be due and payable upon Tenant's execution and delivery of this Lease (and shall be applied against Base Rent and Operating Expenses first coming due under this Lease). Tenant promises to pay to Landlord in advance, without demand, deduction or set-off, monthly installments of Base Rent on or before the first day of each calendar month succeeding the Commencement Date. Payments of Base Rent for any fractional calendar month shall be prorated. All payments required to be made by Tenant to Landlord hereunder shall be payable at such address as Landlord may specify from time to time by written notice delivered in accordance herewith; provided, however, Tenant shall have the right to pay rent electronically pursuant to Landlord's ACH procedures. The obligation of Tenant to pay Base Rent and other sums to Landlord and the obligations of Landlord under this Lease are independent obligations and shall constitute rent. Tenant shall have no right at any time to abate, reduce, or set-off any rent due hereunder except where expressly provided in this Lease, and shall not be excused from paying any rent due hereunder for any reason whatsoever, except as expressly set forth to the contrary in this Lease. Tenant acknowledges that late payment by Tenant to Landlord of any rent due hereunder will cause Landlord to incur costs not contemplated by this Lease, the exact amount of such costs being extremely difficult and impractical to determine. Therefore, if Tenant is delinquent in any monthly installment of Base Rent, estimated Operating Expenses or other sums due and payable hereunder for more than [***] ([***]) days, Tenant shall pay to Landlord on demand a late charge equal to [***] percent ([***]%) of such delinquent sum. The parties agree that such late charge represents a fair and reasonable estimate of the costs that Landlord will incur by reason of such late payment by Tenant. The late charge shall be deemed to be rent, and the right to require it shall be in addition to all of Landlord's other rights and remedies for a payment failure of Tenant, including the right to charge interest on the past due amount.

(b) Subject to the terms and conditions of this Paragraph 4(b), provided that Tenant is not then in default under this Lease, Tenant shall be credited with the payment of monthly Base Rent with respect to the Premises for the first [***] ([***]) full calendar months of the initial Lease Term only (collectively, the "**Base Rent Credit**"), in each case as and when the same becomes due and payable, for a total Base Rent Credit equal to Eight Hundred Fifteen Thousand Nine Hundred Sixty-Five and No/100 Dollars ($815,965.00) in the aggregate. Such Base Rent Credit shall not reduce or limit any other amounts which are otherwise payable by Tenant under this Lease (including, without limitation, Operating Expenses).

5. **Letter of Credit**.

(a) Concurrently with Tenant's execution and delivery of this Lease, Tenant shall deliver to Landlord an irrevocable letter of credit (the "**Letter of Credit**") in favor of Landlord in the amount of Six Million Three Hundred Fifty-Seven Thousand Seven Hundred Eight Hundred Sixteen and 52/100 Dollars ($6,357,816.52) as security for the performance of Tenant's obligations under this Lease. The Letter of Credit initially delivered pursuant to this Paragraph 5(a) and all substitutions, replacements and renewals of it, must be consistent with and shall satisfy all the following requirements: (i) the Letter of Credit shall be clean, irrevocable and unconditional and effective

immediately upon issuance; (ii) the Letter of Credit must be issued by a national bank which is a member of the New York Clearing House and which has a banking office dedicated to the administration and payment of letters of credit in Los Angeles, California, which bank must be reasonably satisfactory to Landlord; (iii) the Letter of Credit shall have an expiration date no earlier than the first (1st) anniversary of the date of its issuance and shall provide for its automatic renewal from year to year unless terminated by the issuing bank by notice to Landlord given not less than [***] ([***]) days prior to its expiration date by registered or certified mail (and the final expiration date of the Letter of Credit and all renewals of it shall be no earlier than [***] ([***]) days following the expiration of the Lease Term); (iv) the Letter of Credit may be drawn at the Los Angeles, California banking office of the issuer and must allow for draws to be made at sight pursuant to a form of draw request reasonably satisfactory to Landlord; (v) the Letter of Credit must allow for one draw in the whole amount or multiple partial draws (and Landlord shall not, as a condition to any draw, be required to deliver any certificate, affidavit or other writing to the issuer expressing the basis for the draw; nor shall the issuer have the right to inquire as to the basis for the draw or require instruction or authorization from any party other than Landlord; nor shall issuer be permitted to withhold a draw, when requested by Landlord, as a result of any instruction from any other party); (vi) the Letter of Credit shall be freely transferable by Landlord; (vii) the Letter of Credit shall be governed by (A) the International Standby Practices (SP 98 published by the International Chamber of Commerce) and (B) the United Nations Convention on Independent Guarantees and Standby Letters of Credit; and (viii) the Letter of Credit shall otherwise be in such form and subject to such requirements as Landlord may reasonably require provided, Landlord hereby approves the form attached here as Exhibit G. Without limiting the generality of the foregoing, the Letter of Credit must be issued by a bank or financial institution acceptable to Landlord (x) that is chartered under the laws of the United States, any state thereof or the District of Columbia, and which is insured by the Federal Deposit Insurance Corporation, (y) whose long-term debt ratings on bank level senior debt obligations are rated in not lower than the second highest category by at least two of Fitch Ratings Ltd. ("**Fitch**"), Moody's Investors Service, Inc. ("**Moody's**") and Standard & Poor's Ratings Services ("**S&P**") or their respective successors (the "**Rating Agencies**") (which, as of the date hereof, shall mean AA from Fitch, Aa from Moody's or AA from S&P) and (z) which has a short-term deposit rating at the bank level in the highest category from at least two Rating Agencies (which shall mean F1 from Fitch, P-1 from Moody's and A-1 from S&P).

(b) Landlord may draw on the Letter of Credit, in whole or in part at Landlord's election, without advance notice to Tenant at any time or from time to time on or after (i) the occurrence of any Event of Default (as defined herein), or (ii) if Tenant, or anyone in possession of the Premises (or any portion thereof) through Tenant, holds over after the expiration or earlier termination of this Lease, or (iii) Landlord is given notice by the issuer of the Letter of Credit that it is terminating the Letter of Credit, or (iv) the Letter of Credit expires on a specified date by its terms and is not renewed or replaced at least [***] ([***]) days in advance of its expiration date, or (v) to the extent permitted by law, in the event any bankruptcy, insolvency, reorganization or any other debtor creditor proceeding is instituted by or against Tenant.

(c) If at any time the bank or financial institution that issues the Letter of Credit is declared insolvent, or is placed into receivership by the Federal Deposit Insurance Corporation or any other governmental or quasi-governmental institution, or if the bank or financial institution no longer satisfies the ratings requirements set forth in Paragraph 5(a) above then following written notice from Landlord, Tenant shall have [***] ([***]) days to replace the Letter of Credit with a new letter of credit from a bank or financial institution reasonably acceptable to Landlord. If Tenant does not replace the Letter of Credit with a new letter of credit from a bank or financial institution reasonably acceptable to Landlord within such [***] ([***]) day period, then notwithstanding anything to the contrary herein, Tenant shall be in default under this Lease (without any notice or opportunity to cure), and Landlord shall have the right to draw upon the Letter of Credit for the full amount of the Letter of Credit, and such amount shall be held by Landlord as a cash security deposit for application, at Landlord's election, to future sums owing to Landlord under this Lease, in such order and priority as Landlord elects in its absolute discretion.

(d) Following a Tenant default, Landlord may apply any sum drawn on the Letter of Credit to amounts owing to Landlord under this Lease in such order and priority as Landlord elects in its absolute discretion. If any of the proceeds drawn on the Letter of Credit are not applied immediately to sums owing to Landlord under this Lease, Landlord may retain any such excess proceeds as a cash security deposit for application, at Landlord's election, to future sums owing to Landlord under this Lease, in such order and priority as Landlord elects in its absolute discretion. Tenant shall, within [***] ([***]) days after Landlord's demand, restore the amount of the Letter of Credit drawn so that the sum of the restored Letter of Credit amount plus any cash proceeds from the draw retained by Landlord as a cash security deposit, equals the original amount of the Letter of Credit.

(e) Landlord's draw and application of all or any portion of the proceeds of the Letter of Credit shall not impair any other rights or remedies provided under this Lease or under applicable law and shall not be construed as a payment of liquidated damages. So long there is no uncured Tenant default, the Letter of Credit shall be returned to Tenant or, if Landlord has drawn on the Letter of Credit, the remaining proceeds of the Letter of Credit which are in excess of sums due the Landlord shall be repaid to Tenant, without interest, within [***] ([***]) days after the expiration or termination of the Lease Term.

(f) On any request by Landlord made during the Lease Term, Tenant shall cooperate in accomplishing any reasonable modification of the Letter of Credit requested by Landlord. If the Letter of Credit should be lost, mutilated, stolen or destroyed, Tenant shall cooperate in obtaining the issuance of a replacement. Tenant shall not assign or grant any security interest in the Letter of Credit and any attempt to do so shall be void and of no effect. In the event of a voluntary sale or transfer of Landlord's estate or interest in the Premises, Landlord shall transfer the Letter of Credit to the transferee (to the extent not required to satisfy obligations of Tenant to Landlord), Tenant shall pay any transfer fees charged in connection with such transfer and Landlord shall thereafter be considered released by Tenant from all liability for the return of the Letter of Credit. Tenant shall cooperate with Landlord and the transferee in effecting any such transfer.

(g) Landlord and Tenant acknowledge and agree that in no event or circumstance shall the Letter of Credit or any renewal thereof or substitute therefor be (1) deemed to be or treated as a "security deposit" within the meaning of California Civil Code Section 1950.7, (2) subject to the terms of such Section 1950.7, or (3) intended to serve as a "security deposit" within the meaning of such Section 1950.7. The parties hereto (xx) recite that the Letter of Credit is not intended to serve as a security deposit and such Section 1950.7 and any and all other laws, rules and regulations applicable to security deposits in the commercial context ("**Security Deposit Laws**") shall have no applicability or relevancy thereto, and (yy) waive any and all rights, duties and obligations either party may now or, in the future, will have relating to or arising from the Security Deposit Laws.

(h) Notwithstanding the foregoing, if the Reduction Preconditions (defined below) are then satisfied and continue to be satisfied thereafter, then as of July 1, 2023 ("**LC Reduction Date**"), the LC Amount shall be reduced by $5,809,522.16 to equal $548,294.36. Following the LC Reduction Date, and Landlord's written confirmation to Tenant that the Reduction Preconditions were satisfied as of such date (which confirmation shall not be unreasonably withheld), Tenant shall be permitted to deliver to Landlord a new Letter of Credit (a "**Replacement Letter of Credit**") which satisfies all of the terms and conditions described above in this Paragraph 5, or, at Tenant's option, an amendment to the then-current letter of credit modifying the LC Amount as described herein, which Landlord will promptly execute. Upon Landlord's receipt of a Replacement Letter of Credit that satisfies the terms and conditions of this Paragraph 5 (including that such Replacement Letter of Credit shall not be delivered unless and until the Landlord has confirmed in writing that the Reduction Preconditions have been satisfied), Landlord shall no longer be permitted to draw upon any existing Letter of Credit previously delivered by Tenant pursuant to this Paragraph 5, and Landlord shall return to Tenant any such existing Letter of Credit then in Landlord's possession within [***] ([***]) days following Landlord's receipt of the Replacement Letter of Credit. As used herein, the term "**Reduction Preconditions**" means that (x) there is no Tenant default hereunder and (y) neither the Lease nor Tenant's right to possession of the Premises has been terminated.

6. **Operating Expenses**.

(a) During each month of the Lease Term, on the same date that Base Rent is due, Tenant shall pay Landlord an amount equal to 1/12th of the annual cost, as estimated by Landlord from time to time, of Tenant's Proportionate Share (as hereinafter defined) of Operating Expenses. Payments thereof for any fractional calendar month shall be prorated. The provisions of this Paragraph 6 shall survive the expiration or earlier termination of the Lease.

(b) The term "**Operating Expenses**" means all costs and expenses incurred by Landlord in connection with the ownership, maintenance, and/or operation of the Project including, but not limited to costs of: utilities serving any Common Areas of the Project; maintenance, repair and replacement of all portions of the Project, including without limitation, paving and parking areas, roads, roofs, roof membrane, alleys, and driveways; mowing, snow removal, landscaping, and exterior painting; the cost of maintaining utility lines, exterior lighting and mechanical

and building systems serving the Building or Project; amounts paid to contractors and subcontractors for work or services performed in connection with any of the foregoing; charges or assessments of any owners association to which the Building or the Project is subject; costs incurred in connection with any easement, covenants, conditions or restrictions pertaining to or affecting the Project, including, without limitation, costs to maintain landscaping, monitoring wells, parking areas under easements, project signage, transportation demand management program, or any other recurring costs to satisfy any conditions of approval of the Project, conditions imposed upon the Project and/or and comply with water quality laws and/or stormwater treatment requirements and other applicable Hazardous Materials Laws (as defined in Exhibit E below); fees payable to tax consultants and attorneys for consultation and contesting taxes; environmental insurance, environmental management fees and environmental audits; the cost of any insurance deductibles for insurance maintained by Landlord; property management fees payable to a property manager, including any affiliate of Landlord, or if there is no property manager, an administration fee of [***] percent ([***]%) of Operating Expenses payable to Landlord; security services, if any; trash collection, sweeping and removal; and all modifications, additions or alterations made by Landlord to the Project or the Building in order to comply with Legal Requirements (other than those expressly required herein to be made by Tenant) or that are appropriate to the continued operation of the Building as a commercial warehouse or industrial facility and the Project in the market area. In addition, Operating Expenses shall include (1) all Taxes (hereinafter defined) due and payable each calendar year during the Lease Term, and (2) the cost of insurance maintained by Landlord for the Project for each calendar year during the Lease Term. The cost of any repairs, replacements, modifications, additions or alterations to the Project performed by Landlord that are required to be capitalized for federal income tax purposes shall be amortized with interest (at a rate reasonably determined by Landlord) on a straight line basis over a period equal to the useful life thereof for federal income tax purposes and included in Operating Expenses only to the extent of the amortized amount for the respective calendar year.

(c) Notwithstanding the foregoing, Operating Expenses do not include (1) debt service under mortgages or ground rent under ground leases; (2) costs of restoration to the extent of net insurance proceeds received by Landlord with respect thereto; (3) leasing commissions or the costs of renovating space for tenants; (4) any costs or legal fees incurred in connection with a dispute with any particular tenant; (5) costs allocated to, and paid by, a specific Project tenant or third party; (6) depreciation, (7) reserves, (8) costs to remedy initial Project construction defects; (9) costs to address Hazardous Substances with regard to contamination on or about the Project prior to the date of this Lease; (10) fine art acquisition or restoration, (11) costs of developing undeveloped portions of the Project; (12) any costs that are materially in excess of competitive rates and charges for similar services or materials in the geographic location of the Project; (13) late fees, fines or charges related to any delinquent payments or violations of Legal Requirements by Landlord or Landlord’s agents; (14) costs covered by project oversight fees charged to and paid by specific tenants; and (15) repairs, replacements, modifications, additions or alterations to the Project performed by Landlord that are required to be capitalized for federal income tax purposes other than the amortized cost therefor pursuant to the terms of Paragraph 6(b) above. In addition, should Tenant agree to perform, at Tenant’s direct cost, repair and maintenance obligations on its Premises that are allocated to Landlord in other Project Leases, then Landlord shall exclude such costs from Operating Expenses to account for same.

(d) If Tenant's total payments of Operating Expenses for any year are less than Tenant's Proportionate Share of actual Operating Expenses for such year, then Tenant shall pay the difference to Landlord within [***] ([***]) days after demand, and if more, then Landlord shall retain such excess and credit it against Tenant's next payments. For purposes of calculating Tenant's Proportionate Share of Operating Expenses, a year shall mean a calendar year except the first year, which shall begin on the Commencement Date, and the last year, which shall end on the expiration of this Lease.

(e) With respect to Operating Expenses which Landlord allocates to the entire Project, Tenant's "Proportionate Share" shall be the percentage set forth on the first page of this Lease as Tenant's Proportionate Share of the Project as reasonably adjusted by Landlord in the future for changes in the physical size of the Premises or the Project; and, with respect to Operating Expenses which Landlord allocates only to the Building, Tenant's "Proportionate Share" shall be the percentage set forth on the first page of this Lease as Tenant's Proportionate Share of the Building as reasonably adjusted by Landlord in the future for changes in the physical size of the Premises or the Building. Landlord may equitably increase Tenant's Proportionate Share for any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Premises or only a portion of the Project or Building that includes the Premises or that varies with occupancy or use provided Landlord makes similar adjustments in similar cases for all other Project tenants. The estimated Operating Expenses for the Premises

set forth on the first page of this Lease are only estimates, and Landlord makes no guaranty or warranty that such estimates will be accurate. The Premises, the Building, and the Project are stipulated for all purposes to contain the number of rentable square feet, respectively, as set forth in the Basic Lease Provisions, and the same will be conclusive and binding on Landlord and Tenant, except that Tenant's Proportionate Share of Building, Tenant's Proportionate Share of Project, the rentable area of the Premises, and the rentable area of the Building and Project, may reasonably be adjusted by Landlord in the future for changes in the physical size or area of the Premises, the Building, the Project, or the Common Areas. Except as otherwise set forth above, any statement of square footage set forth in this Lease, or that may have been used in calculating rental, is an approximation which Landlord and Tenant agree is reasonable and the rental based thereon is not subject to revision.

(f) Provided Tenant is not then in default beyond any applicable cure period of its obligations to pay rent, or any other payments required to be made by it under this Lease, Tenant shall have the right, once each calendar year, to cause a Qualified Person (as defined below) to reasonably review supporting data for any portion of an actual statement of annual Operating Expenses delivered by Landlord (the "**Actual Statement**") (provided, however, Tenant may not have an audit right to all documentation relating to Building operations as this would far-exceed the relevant information necessary to properly document a pass-through billing statement, but real estate tax statements, and information on utilities, repairs, maintenance and insurance will be available), in accordance with the following procedure:

(1) Tenant shall, within [***] ([***]) days after any Actual Statement is delivered, deliver a written notice to Landlord specifying the portions of the Actual Statement that are claimed to be incorrect, and Tenant shall simultaneously pay to Landlord all amounts due from Tenant to Landlord as specified in the Actual Statement. In no event shall Tenant be entitled to withhold, deduct, or offset any monetary obligation of Tenant to Landlord under the Lease (including without limitation, Tenant's obligation to make all payments of rent and all payments of Tenant's Operating Expenses) pending the completion of and regardless of the results of any review of records under this Paragraph. The right of Tenant under this Paragraph may only be exercised once for any Actual Statement, and if Tenant fails to meet any of the above conditions as a prerequisite to the exercise of such right, the right of Tenant under this Paragraph for a particular Actual Statement shall be deemed waived.

(2) Tenant acknowledges that Landlord maintains its records for the Project at the office of Landlord's property manager ("**Property Manager**"), and Tenant agrees that any review of records under this Paragraph shall be at the sole expense of Tenant and shall be conducted by a Qualified Person. Tenant acknowledges and agrees that any records reviewed under this Paragraph constitute confidential information of Landlord, which shall not be disclosed to anyone other than the Qualified Person performing the review, the principals of Tenant who receive the results of the review, and Tenant's accounting employees. The disclosure of such information to any other person, whether or not caused by the conduct of Tenant, shall constitute a material breach of this Lease.

(3) Any errors disclosed by the review shall be promptly corrected by Landlord, provided, however, that if Landlord disagrees with any such claimed errors, Landlord shall have the right to cause another review to be made by a Qualified Person. In the event of a disagreement between the two (2) reviews, the two (2) Qualified Persons who conducted Landlord's and Tenant's reviews shall jointly designate a third (3rd) Qualified Person, at Tenant's sole cost and expense (except as otherwise indicated in this Lease), to conduct a review of Landlord's records. The review of such third (3rd) Qualified Person shall be deemed correct and binding upon the parties. In the event that the final results of such review of Landlord's records reveal that Tenant has overpaid obligations for the preceding period, the amount of such overpayment shall be credited against Tenant's subsequent installment obligations to pay the estimated Operating Expenses; provided, however, if Tenant has overpaid by more than [***] percent ([***]%), Landlord shall pay the reasonable out-of-pocket cost of the review of Landlord's records by Tenant's Qualified Person and the reasonable out-of-pocket cost of the review of Landlord's records by the third (3rd) Qualified Person. If this Lease has expired, Landlord shall return the amount of such overpayment to Tenant within [***] ([***]) days after such reviews have been made. In the event that such results show that Tenant has underpaid its obligations for a preceding period, the amount of such underpayment shall be paid by Tenant to Landlord with the next succeeding installment obligation of estimated Operating Expenses. A "**Qualified Person**" means an accountant or other person experienced in accounting for income and expenses of industrial projects engaged solely by Tenant on terms which do not entail any compensation based or measured in any way upon any savings in rent or reduction in Operating Expenses achieved through the inspection process.

7. **Utilities**.

(a) Tenant shall contract with and directly pay when due utility company charges for all water, gas, electricity, heat, light, power, telephone, sewer, sprinkler services, refuse and trash collection, and other utilities and services used on the Premises, all maintenance charges for utilities, and any storm sewer charges or other similar charges for utilities imposed upon the Premises by any governmental entity or utility provider, together with any taxes, penalties, surcharges or the like pertaining to Tenant's use of the Premises. Landlord shall have no responsibilities whatsoever in connection with the foregoing. Electrical, gas (if any) and water shall be, separately metered. Landlord may cause at Tenant's expense any utilities to be separately metered or charged directly to Tenant by the provider. Tenant shall pay its share of all charges for jointly metered utilities based upon consumption, as reasonably determined by Landlord. Tenant agrees to limit use of water and sewer for normal restroom and office use. No interruption or failure of utilities shall result in the termination of this Lease or the abatement of rent; however, in the event that Tenant requests Landlord's assistance in restoring disrupted utility service, Landlord shall promptly cooperate with Tenant to assist Tenant to cause same to be restored, it being understood that any costs of same will be treated as Operating Expenses. Landlord shall not voluntarily cause or authorize any disruption or diminution of utility service to the Premises without the prior written consent of Tenant, which may be withheld in Tenant's sole but reasonable discretion.

(b) Tenant shall, at its sole cost and expense, contract directly with a janitorial service and shall pay for all janitorial services used on or for the Premises. Landlord shall have no obligations whatsoever in connection therewith.

(c) Tenant shall store all trash and garbage within the Premises or in a trash dumpster or similar container approved by Landlord as to type, location and screening; and Tenant shall arrange for the regular pick-up of such trash and garbage at Tenant's expense. Tenant shall comply with applicable Legal Requirements related to trash and recycling.

(d) **Consumption Data**. If required by Legal Requirements, Tenant shall reasonably cooperate with Landlord and provide utility use information necessary for Landlord's legal compliance. All such information shall be kept confidential, except as required for Legal compliance.

(e) **Benchmarking**. When energy and/or water benchmarking are required by local, state or federal codes, Tenant shall reasonably cooperate with Landlord to comply with such Legal Requirements.

(i) **Data Center**. Tenant may not operate a Data Center within the Premises without the express written consent of Landlord. The term "**Data Center**" shall have the meaning set forth in the U.S. Environmental Protection Agency's ENERGY STAR® program and is a space specifically designed and equipped to meet the needs of high-density computing equipment, such as server racks, used for data storage and processing. The space will have dedicated, uninterruptible power supplies and cooling systems. Data Center functions may include traditional enterprise services, on-demand enterprise services, high-performance computing, internet facilities and/or hosting facilities. A Data Center does not include space within the Premises utilized as a "server closet," main distribution frame, or for a computer training area. In conjunction with the completion and operation of the Data Center, Tenant shall furnish the following information to Landlord:

(1) Within [***] ([***]) days of completion, Tenant shall report to Landlord the total gross floor area (in square feet) of the Data Center measured between the principal exterior surfaces of the enclosing fixed walls and including all supporting functions dedicated for use in the Data Center, such as any raised-floor computing space, server rack aisles, storage silos, control console areas, battery rooms, mechanical rooms for cooling equipment, administrative office areas, elevator shafts, stairways, break rooms and restrooms. If Tenant alters or modifies the area of the Data Center, Tenant shall furnish an updated report to Landlord on the square footage within [***] ([***]) days following completion of the alterations or modifications.

(2) Within [***] ([***]) days following the close of each month of operation of the Data Center, monthly IT Energy Readings at the output of the Uninterruptible Power Supply (UPS), measured in total kWh utilized for the preceding month (as opposed to instantaneous power readings), failing which in addition to same being an Event of Default, Tenant shall be obligated to pay to Landlord the Late Reporting Fee.

8. **Taxes**. Landlord shall pay all taxes, assessments, special assessments, improvement districts, and governmental charges that accrue against the Project and are applicable to any period during the Lease Term (collectively referred to as "**Taxes**"). Taxes that are applicable to any period during the Lease Term shall be included as part of the Operating Expenses charged to Tenant pursuant to Paragraph 6 hereof during each year of the Lease Term, based upon Landlord's reasonable estimate of the amount of Taxes, and shall be subject to reconciliation and adjustment pursuant to Paragraph 6 once the actual amount of Taxes is known. Taxes shall include, without limitation, any increase in any of the foregoing based upon construction of improvements on the Project or changes in ownership (as defined in the California and Revenue Taxation Code). Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or liens thereof and any costs incurred in such contest may be included as part of Taxes. All capital levies or other taxes assessed or imposed on Landlord upon the rents payable to Landlord under this Lease and any franchise tax, any excise, transaction, sales or privilege tax, assessment, levy or charge measured by or based, in whole or in part, upon such rents from the Premises and/or the Project or any portion thereof shall be paid by Tenant to Landlord monthly in estimated installments or upon demand, at the option of Landlord, as additional rent; provided, however, in no event shall Tenant be liable for any net income taxes imposed on Landlord unless such net income taxes are in substitution for any Taxes payable hereunder. If any such tax or excise is levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the same at such times and in such manner as the taxing authority shall require. Tenant shall be liable for all taxes levied or assessed against any personal property or fixtures placed in the Premises, whether levied or assessed against Landlord or Tenant, and if any such taxes are levied or assessed against Landlord or Landlord's property and (a) Landlord pays them or (b) the assessed value of Landlord's property is increased thereby and Landlord pays the increased taxes, then Tenant shall pay to Landlord such taxes within [***] ([***]) days after Landlord's request therefor.

9. **Insurance; Waivers; Subrogation**.

(a) **Tenant's Insurance**. Effective as of the earlier of: (1) the date Tenant enters or occupies the Premises; or (2) the Commencement Date, and continuing throughout the Lease Term, Tenant shall maintain the following insurance policies: (A) commercial general liability insurance of not less than $[***] per occurrence, with an annual aggregate limit of not less than $[***], which shall apply on a per location basis, or, following the expiration of the initial Lease Term, such other amounts as Landlord may from time to time reasonably require (and, if the use and occupancy of the Premises include any activity or matter that is or may be excluded from coverage under a commercial general liability policy [e.g., the sale, service or consumption of alcoholic beverages], Tenant shall obtain such endorsements to the commercial general liability policy or otherwise obtain insurance to insure all liability arising from such activity or matter [including liquor liability, if applicable] in such amounts as Landlord may reasonably require), insuring Tenant, Landlord, the Property Manager, [***] ("**Asset Manager**"), [***] ("[***]") against all liability for injury to or death of a person or persons or damage to property arising from the use and occupancy of the Premises and (without implying any consent by Landlord to the installation thereof) the installation, operation, maintenance, repair or removal of Tenant's equipment with an additional insured endorsement in form CG 2026 04/13 (or another equivalent form approved in writing by Landlord); (B) Automobile Liability covering any owned, non-owned, leased, rented or borrowed vehicles of Tenant with limits no less than $[***] combined single limit for property damage and bodily injury, naming Landlord, the Property Manager, Asset Manager and [***] as additional insureds; (C) Special Risk Property insurance (which, if available at a commercially reasonable cost, shall include protection against loss or damage from earthquakes) covering the full value of all Tenant-Made Alterations and improvements and betterments in the Premises, naming Landlord and its lender as additional loss payees as their interests may appear; (D) Special Risk Property insurance (which, if available at a commercially reasonable cost, shall include protection against loss or damage from earthquakes) covering the full value of all furniture, trade fixtures and personal property (including property of Tenant or others) in the Premises or otherwise placed in the Project by or on behalf of a Tenant Party it being understood that no lack or inadequacy of insurance by Tenant shall in any event make Landlord subject to any claim by virtue of any theft of or loss or damage to any uninsured or inadequately insured property; (E) contractual liability insurance sufficient to cover Tenant's indemnity obligations hereunder (but only if such contractual liability insurance is not already included in Tenant's commercial general liability insurance policy); (F) worker's compensation insurance in amounts not less than statutorily required, and Employers' Liability insurance with limits of not less than $[***]; (G) business interruption insurance in an amount that will reimburse Tenant for direct or indirect loss of earnings attributable to all perils insured against under Paragraph9(a)(C) or attributable to the prevention of access to the Building or the Premises, naming Tenant, Landlord, Landlord's lender and [***] as loss payees with respect to loss of rents coverage; (H) in the event Tenant performs any alterations or repairs in, on, or to the Premises, Builder's Risk Insurance on a Special Risk basis (including collapse) on a completed value (non-

reporting) form, or by endorsement including such coverage pursuant to Paragraph9(a)(C) hereinabove, for full replacement value covering all work incorporated in the Building and all materials and equipment in or about the Premises; and (I) such other insurance or any changes or endorsements to the insurance required herein, including increased limits of coverage, as Landlord, or any mortgagee or lessor of Landlord, may reasonably require from time to time. Tenant's insurance shall provide primary coverage to Landlord and shall not require contribution by any insurance maintained by Landlord, when any policy issued to Landlord provides duplicate or similar coverage, and in such circumstance Landlord's policy will be excess over Tenant's policy. Tenant shall furnish to Landlord certificates of such insurance, with an additional insured endorsement in form CG 2026 04/13 (or another equivalent form approved in writing by Landlord), and such other evidence satisfactory to Landlord of the maintenance of all insurance coverages required hereunder at least [***] ([***]) days prior to the earlier of the Commencement Date or the date Tenant enters or occupies the Premises, and at least [***] ([***]) days prior to each renewal of said insurance, and Tenant shall obtain a written obligation on the part of each insurance company to endeavor to notify Landlord at least [***] ([***]) days before cancellation of any such insurance policies. All such insurance policies shall be in form, and issued by companies licensed to do business in the State of California and with a Best's rating of A:VII or better, reasonably satisfactory to Landlord. If Tenant fails to comply with the foregoing insurance requirements or to deliver to Landlord the certificates or evidence of coverage required herein, Landlord, in addition to any other remedy available pursuant to this Lease or otherwise, may, but shall not be obligated to, obtain such insurance and Tenant shall pay to Landlord on demand the premium costs thereof, plus an administrative fee of [***] percent ([***]%) of such cost. It is expressly understood and agreed that the foregoing minimum limits of insurance coverage shall not limit the liability of Tenant for its acts or omissions as provided in this Lease.

(b) **Landlord's Insurance**. Throughout the Lease Term, Landlord shall maintain, as a minimum, the following insurance policies: (1) property insurance for the Building's replacement value (excluding property required to be insured by Tenant), less a commercially-reasonable deductible if Landlord so chooses; and (2) commercial general liability insurance in an amount of not less than $[***]. Landlord may, but is not obligated to, maintain such other insurance and additional coverages as it may deem necessary. Tenant shall pay its Proportionate Share of the cost of all insurance carried by Landlord with respect to the Project. The foregoing insurance policies and any other insurance carried by Landlord shall be for the sole benefit of Landlord and under Landlord's sole control, and Tenant shall have no right or claim to any proceeds thereof or any other rights thereunder.

(c) **No Subrogation**. Notwithstanding any other provision of this Lease to the contrary, neither Landlord nor Tenant nor their respective officers, directors, members, partners, agents or employees shall be liable to the other for any injury, damage to or theft, destruction, loss, or loss of use of any property (collectively, a "**Loss**") caused by any risk, to the extent the same is insured against under any insurance policy that covers the Building, the Premises, Landlord's or Tenant's fixtures, personal property, leasehold improvements, or business, or is required to be insured against under the terms hereof (whether or not such insurance is in fact in effect), regardless of cause or origin, including if the negligence of the other party hereto, or the negligence of its officers, directors, members, partners, agents or employees, caused such Loss, and each of Landlord and Tenant hereby waives any rights of recovery against the other and its respective officers, directors, members, partners, agents or employees for any Loss on account of such insured risks. Landlord and Tenant each hereby waive any right of subrogation and right of recovery or cause of action for injury including death or disease to respective employees of either as covered by worker's compensation (or which would have been covered if Tenant or Landlord as the case may be, was carrying the insurance as required by this Lease). Each party shall cause its insurance carrier to endorse all applicable policies waiving the carrier's rights of recovery under subrogation or otherwise against the other party. Landlord and Tenant each acknowledges that the waivers and releases set forth in this Paragraph 9(c) are intended to produce the result that any Loss which is covered by insurance would be borne by the insurance carriers of Landlord or Tenant, as the case may be, or by the party having the insurable interest if such Loss is not covered by insurance but this Lease requires such party to maintain insurance to cover such Loss. Landlord and Tenant agree that such waivers and releases were freely bargained for and willingly and voluntarily agreed to by Landlord and Tenant and do not constitute a violation of public policy.

(d) **Tenant Indemnity**. Subject to Paragraph 9(c), Tenant shall indemnify, defend and hold harmless Landlord and its affiliates and their investment advisors, members, agents, servants, directors, property managers, officers and employees (collectively, "**Landlord Indemnitees**"), from and against all third-party claims, demands, liabilities, causes of action, suits, judgments, damages, losses and expenses (including reasonable, out-of-pocket attorneys' fees) ("**Claims**") resulting from: (1) any injury to or death of any person or any Loss arising from

any occurrence in the Premises or as a result of the use of the Common Areas by any Tenant Party; or (2) Tenant's failure to perform its obligations under this Lease, except to the extent caused by the negligence or willful misconduct of Landlord or any of the Landlord Indemnitees. The indemnities set forth in this Paragraph 9(d) shall survive the termination or expiration of this Lease and shall not terminate or be waived, diminished or affected in any manner by any abatement or apportionment of Rent under any provision of this Lease. If any proceeding is filed for which indemnity is required hereunder, Tenant agrees, upon request therefor, to defend Landlord in such proceeding at its sole cost utilizing counsel reasonably satisfactory to Landlord.

(e) **Landlord Indemnity**. Subject to Paragraph 9(c), Landlord shall indemnify, defend and hold harmless Tenant and its affiliates and their members, agents, servants, directors, property managers, officers and employees (collectively, "**Tenant Indemnitees**"), from and against all claims, demands, liabilities, causes of action, suits, judgments, damages, losses and expenses (including reasonable, out-of-pocket attorneys' fees) arising from and against any and all Claims by third parties resulting from the negligence or willful misconduct of Landlord or its employees, contractors, subcontractors, representatives, consultants, licensees or invitees; provided, however, notwithstanding the foregoing or anything to the contrary in this Lease, Landlord shall not have any obligation to indemnify Tenant or any Tenant Indemnitees for any Claims to the extent caused by the negligence or willful misconduct of Tenant or any of the Tenant Indemnitees. If any proceeding is filed for which indemnity is required hereunder, Landlord agrees, upon request therefor, to defend Tenant in such proceeding at its sole cost utilizing counsel reasonably satisfactory to Tenant.

10. **Landlord's Repairs**. This Lease is intended to be a net lease. Subject to Paragraphs 15 and 16 of this Lease and any damages caused by Tenant or any Tenant Party, Landlord shall, at Landlord's sole cost, except as otherwise set forth in this Lease, maintain only the structural elements of: (a) the roof of the Building (not including the roof membrane, which shall be maintained and repaired as part of Operating Expenses), (b) the exterior walls of the Building (not including painting and caulking, which shall be maintained as part of Operating Expenses), and (c) the foundations for the Building (collectively, the "**Building Structural Elements**"), including repairs to the Building Structural Elements necessitated by subgrade movement not caused by Tenant or any of its agents, contractors or employees. In addition, Landlord shall maintain, repair and replace (as needed), as part of Operating Expenses, only the following elements of the Project: (i) storm drainage and backflow systems serving the Building and Project; and (ii) the exterior parking areas, driveways and landscaping surrounding the Building (provided that regular sweeping of the parking areas and driveways and maintenance and repair of electrical vehicle charging stations shall be Tenant's responsibility pursuant to Paragraph 11 below). Notwithstanding the foregoing, subject to Paragraph 9(c) above, maintenance, repairs and/or replacements necessitated in any material respect by any breach by Tenant or any negligent act or omission of Tenant or any Tenant Party shall be performed at Tenant's cost and expense. The term "walls" as used in this Paragraph 10 shall not include windows, glass or plate glass, doors or overhead doors, special store fronts, dock bumpers, dock plates or levelers, or office entries, all of which shall be maintained by Tenant. Tenant shall promptly give Landlord written notice of any repair required by Landlord pursuant to this Paragraph 10, after which Landlord shall have a reasonable opportunity to repair such item. Tenant hereby waives the benefit of California Civil Code Sections 1941 and 1942, and any other statute providing a right to make repairs and deduct the cost thereof from the rent.

11. **Tenant's Repairs**.

(a) Subject to Landlord's obligations in Paragraph 10, Tenant, at its sole expense, shall repair, replace and maintain in good condition and in compliance with all Legal Requirements all portions of the Premises, the Building and the Project and all areas, improvements and systems serving the Premises including, without limitation, dock, dock equipment and loading areas, truck doors, plumbing, water, and sewer lines up to points of common connection, entries, doors, door frames, ceilings, windows, window frames, interior walls, and the interior side of demising walls, heating, ventilation and air conditioning systems and other building and mechanical systems serving the Premises, the fire sprinklers and fire protection systems serving the Building (including the monitoring thereof), repairing and maintaining the electrical charging stations within the parking areas, and sweeping of the Project's parking areas and driveways. Such repair and replacements shall include capital expenditures and repairs whose benefit may extend beyond the Lease Term. Tenant shall have access to enter upon such parts of the Premises reserved to Landlord, and to Common Areas, for which entry is necessary to comply with the requirements herein. Tenant, at Tenant's expense, shall enter into commercially reasonable and customary maintenance service contracts for the maintenance and repair of the heating, ventilation and air conditioning systems and other mechanical and

building systems serving the Premises. Upon request, Landlord shall, at no material cost or expense to Landlord, reasonably cooperate with Tenant as necessary for Tenant to fully perform the requirements of this Paragraph.

(b) In the event that any repair or maintenance obligation required to be performed by Tenant hereunder may affect the structural integrity of the Building (e.g., roof, foundation, structural members of the exterior walls) or which would likely materially adversely affect building systems (e.g., plumbing, electrical, HVAC, fire and life safety), prior to commencing any such repair, Tenant shall provide Landlord with written notice of the necessary repair or maintenance and a brief summary of the structural component or components of the Building, and/or the Building systems, that may be affected by such repair or maintenance. Within [***] ([***]) business days after Landlord's receipt of Tenant's written notice, Landlord shall have the right, but not the obligation, to elect to cause such repair or maintenance to be performed by Landlord, or a contractor selected and engaged by Landlord, but at Tenant's sole cost and expense.

(c) Within the [***] ([***]) day period prior to the expiration or termination of this Lease, Tenant shall deliver to Landlord a certificate from an engineer reasonably acceptable to Landlord certifying that the hot water equipment, dock equipment, and the HVAC system are then in good repair and working order. If Tenant fails to perform any repair or replacement for which it is responsible within the time periods set forth herein and Tenant fails to commence such repair or replacement within [***] ([***]) Business Days (unless such repair will, due to the nature of the repair, reasonably require a period of time in excess of [***] ([***]) business days to commence such cure, then such additional period of time as is reasonably necessary) after receipt of Landlord's written notice (or sooner in the event of an emergency condition that poses an imminent threat to life or material damage to property), then Landlord may perform such work and be reimbursed by Tenant for its actual out-of-pocket costs in connection therewith within [***] ([***]) days after its receipt of written demand therefor (which demand shall be accompanied by reasonable supporting documentation).Subject to Paragraphs 9 and 15, Tenant shall bear the full cost of any repair or replacement to any part of the Building or Project that results from damage caused by Tenant, its agents, contractors, or invitees and any repair that benefits only the Premises.

12. **Tenant-Made Alterations and Trade Fixtures**.

(a) Any alterations, additions, or improvements made by or on behalf of Tenant to the Premises ("**Tenant-Made Alterations**") shall be subject to Landlord's prior written consent, which shall not be unreasonably withheld, conditioned or delayed. Tenant shall cause, at its expense, all Tenant-Made Alterations to comply with insurance requirements and with Legal Requirements and shall construct at its expense any alteration or modification required by Legal Requirements triggered by any Tenant-Made Alterations.

(b) All Tenant-Made Alterations shall be constructed in a good and workmanlike manner by licensed contractors reasonably acceptable to Landlord of Tenant’s selection and only good grades of materials shall be used. All plans and specifications for any Tenant-Made Alterations shall be submitted to Landlord for its approval, which shall not be unreasonably withheld, conditioned or delayed. Landlord may monitor construction of the Tenant-Made Alterations. Tenant shall pay to Landlord a construction supervision fee equal to [***] percent ([***]%) of the total hard and soft costs of the applicable Tenant-Made Alterations in order to compensate Landlord for its review of plans and specifications and in monitoring construction; provided, however, notwithstanding the foregoing, with regard to the initial Tenant Improvements constructed per the Work Letter attached hereto as Exhibit C, Tenant shall not pay the construction supervision fee referenced in this paragraph, but instead shall pay Landlord the project oversight fee described in the Work Letter. Landlord's right to review plans and specifications and to monitor construction shall be solely for its own benefit, and Landlord shall have no duty to see that such plans and specifications or construction comply with applicable laws, codes, rules and regulations.

(c) Tenant shall provide Landlord with the identities and mailing addresses of all persons performing work or supplying materials, prior to beginning such construction, and Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall furnish security or make other arrangements satisfactory to Landlord to assure payment for the completion of all work free and clear of liens and shall provide certificates of insurance for worker's compensation and other coverage in amounts and from an insurance company satisfactory to Landlord protecting Landlord against liability for personal injury or property damage during construction. Upon completion of any Tenant-Made Alterations, Tenant shall deliver to Landlord sworn statements setting forth the names of all contractors and subcontractors who did work on the Tenant-Made Alterations and final

lien waivers from all such contractors and subcontractors. Notwithstanding the foregoing, lien waiver requirements for the initial Tenant Improvements shall be as described in the Work Letter.

(d) Upon surrender of the Premises all Tenant-Made Alterations, Tenant Improvements and any other leasehold improvements constructed by Landlord or Tenant shall remain on the Premises as Landlord's property provided that Landlord has notified Tenant of such removal requirement at the time that Landlord approved such Tenant-Made Alterations, Tenant Improvements or other leasehold improvements, in which event Tenant shall only be obligated to remove (i) those Tenant Improvements and/or Tenant-Made Alterations that Landlord notified Tenant in writing at the time Landlord provides its consent that it must remove at the end of the Lease Term, and (ii) those Tenant Improvements and/or Tenant-Made Alterations that Tenant did not timely seek or did not obtain Landlord's written consent to leave in place at the end of the Lease Term, and that Landlord ultimately requires Tenant to remove. Failure of Landlord to notify Tenant in writing at the time that Landlord issues its consent that a Tenant Improvement and/or Tenant-Made Alteration must be removed shall mean that Tenant shall not be obligated to remove the Tenant Improvement and/or Tenant-Made Alteration (as applicable) at the expiration or earlier termination of this Lease. Any Tenant Improvement and/or Tenant-Made Alterations, which Landlord has elected to not require Tenant to remove shall remain on the Premises as Landlord's property and shall be deemed abandoned by Tenant at the expiration or earlier termination of the Lease. If Landlord requires the removal of such Tenant Improvements and/or Tenant-Made Alterations, Tenant shall at its sole cost and expense, forthwith and with all due diligence (but in any event not later than [***] ([***]) days after the expiration or earlier termination of the Lease) remove all or any portion of any Tenant Improvements and/or Tenant-Made Alterations made by Tenant which are designated by Landlord to be removed and repair and restore the Premises in a good and workmanlike manner to a condition that is substantially similar to their original condition, reasonable wear and tear and modifications due to a change in applicable Legal Requirements excepted. All construction work done by Tenant within the Premises shall be performed in a good and workmanlike manner with new or like-new materials of first-class quality, lien-free and in compliance with all Legal Requirements.

(e) Tenant, at its own cost and expense and without Landlord's prior approval, may erect such shelves, bins, racks, equipment, machinery, laboratory equipment and trade fixtures (collectively "**Trade Fixtures**") in the ordinary course of its business provided that such items do not alter the basic character of the Premises, do not overload or damage the Premises, and may be removed without injury to the Premises (unless repaid by Tenant), and the construction, erection, and installation thereof complies with all Legal Requirements and with Landlord's requirements set forth in this Paragraph 12 above. Prior to the expiration or termination of this Lease, Tenant, at its sole expense, shall remove its Trade Fixtures and shall repair any and all damage caused by such removal.

(f) Excepting the Tenant Improvements constructed pursuant to the terms of the Work Letter, any and all Tenant-made Alterations performed by Tenant will be performed in accordance with Landlord's "Contractor Rules and Regulations" attached hereto as Exhibit F and any modifications thereto by Landlord, notwithstanding any more permissive local building codes or ordinances.

(g) Tenant may install a security system within the Premises (collectively, "**Tenant's Security Systems**"), at Tenant's sole cost and expense, provided that (a) Landlord approves in advance the plans and specifications therefor (consent not to be unreasonably withheld, conditioned or delayed), (b) Tenant shall supply Landlord with accessibility for emergency purposes and to the extent required for Landlord to perform its obligations under this Lease, and (c) Landlord shall have no liability therefor and Tenant removes same at Landlord's request upon expiration or earlier termination of this Lease. Tenant's Security Systems may include, among other things, continuously monitored video surveillance, roving security guards/patrols, lobby attendants, security lighting, key-card systems, access gates, the right to escort Landlord and any third parties while the same are at the Premises (to the extent such escorts are made reasonably available), the right to require visitors to wear badges while in the Premises and the right to prohibit photographs of the interior of the Premises without Tenant's prior written consent (which consent may be withheld in Tenant's sole discretion).

13. **Signs**. Subject to compliance with all Legal Requirements and all matters of record, Tenant shall have the right to install its name and/or company logo on the exterior of the Building and on any monument sign serving the Building (collectively, "**Tenant's Signage**"); provided, however, the exact design, size, appearance, substance and location of Tenant's Signage shall be subject to Landlord's prior written approval and shall comply with Landlord's signage requirements for the Project and any requirements of the City of Fremont. Any and all costs relating

to the design, permitting, fabrication, installation, maintenance and removal of Tenant's Signage shall be borne solely by Tenant. Tenant agrees to maintain, repair and replace Tenant's Signage in good condition at all times. Any other decorations, advertising media, blinds, draperies and other window treatment or bars or other security installations visible from outside the Premises shall be subject to Landlord's prior written approval and shall conform in all respects to Landlord's requirements. Tenant shall not make any changes to the exterior of the Premises, install any exterior lights, decorations, balloons, flags, pennants, banners, or painting, or erect or install any signs, windows or door lettering, placards, decorations, or advertising media of any type which can be viewed from the exterior of the Premises, without Landlord's prior written consent. Landlord shall not be required to notify Tenant of whether it consents to any signage until it (a) has received detailed, to-scale drawings thereof specifying design, material composition, color scheme, and method of installation, and (b) has had a reasonable opportunity to review them. Tenant shall be responsible, at its sole cost and expense, for obtaining all applicable governmental permits and approvals for all signage and exterior treatments. Upon vacation of the Premises by Tenant or earlier termination of this Lease, Tenant shall be responsible, at its sole cost and expense, for the removal of all signage (including, without limitation, Tenant's Signage) and the repair, re-painting and/or replacement of the structure or surface to which such signage was attached, including remedying any discoloration caused by such installation or removal (so as to cause the same to be in its condition as of the date of installation, reasonable wear and tear excepted). If Tenant fails to perform such work, Landlord may cause the same to be performed, and the cost thereof shall be immediately due and payable upon demand therefor. Landlord’s consent, when required by this Paragraph 13, shall not be unreasonably withheld, delayed or conditioned.

14. **Parking**. Tenant shall be entitled to park its vehicles within the areas designed for parking on Exhibit A attached hereto (at a ratio of not less than [***] stalls/1,000 RSF), subject to Tenant’s obligation to comply with applicable Legal Requirements, the terms of this Lease and the rules and regulations. If Tenant informs Landlord that third parties are, on a regular basis, occupying parking spaces so as to prevent Tenant from utilizing its allotted number of parking spaces, then, subject to compliance with Legal Requirements, Landlord shall use commercially reasonable efforts to enforce Tenant's parking rights with reasonable diligence after written notice from Tenant. All motor vehicles (including all contents thereof) shall be parked in the Project’s parking areas at the sole risk of Tenant, it being expressly agreed and understood Landlord has no duty to insure any of said motor vehicles (including the contents thereof), and Landlord is not responsible for the protection and security of such vehicles. Such customers and invitees shall be entitled to park on the Project while visiting or attending meetings at the Premises, so long as no overnight parking by these customers or invitees is allowed. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN THIS LEASE, LANDLORD SHALL HAVE NO LIABILITY WHATSOEVER FOR ANY PROPERTY DAMAGE OR LOSS WHICH MIGHT OCCUR ON THE PARKING AREAS OR AS A RESULT OF OR IN CONNECTION WITH THE PARKING OF MOTOR VEHICLES IN ANY OF THE PARKING SPACES.

15. **Restoration**.

(a) If at any time during the Lease Term the Premises are damaged by a fire or other casualty, Landlord shall notify Tenant within [***] ([***]) days after such damage as to the amount of time Landlord reasonably estimates it will take to restore the Premises ("**Completion Estimate**"). If the restoration time is estimated to exceed [***] ([***]) months following the date Landlord learns of the damage, then, Tenant may elect to terminate this Lease, and if the restoration time is estimated to exceed [***] ([***]) months following the date Landlord learns of the damage, then, Landlord may elect to terminate this Lease, in each case upon notice to the other party given no later than [***] ([***]) days after the date of delivery of the Completion Estimate. If neither party elects to terminate this Lease then Landlord shall promptly restore the Premises (excluding any Tenant Improvements and/or Tenant-Made Alterations) provided, if the Premises are destroyed or substantially damaged by any peril not covered by the insurance required to be maintained by Landlord hereunder, and such damage was not caused by Landlord's gross negligence or willful misconduct, Landlord may elect to terminate this Lease by written notice to Tenant, provided, further, however, Tenant may elect to override Landlord's election by giving notice of such election ("**Tenant's Override Notice**") and paying any amounts necessary to restore the Premises not covered by the insurance maintained (or required to be maintained) by Landlord hereunder within [***] ([***]) Business Days after Tenant's receipt of Landlord's termination notice to Landlord, whereupon Landlord's termination notice shall be of no force or effect, and Landlord's restoration obligations shall again apply. If Tenant fails timely to deliver Tenant's Override Notice or timely to pay the shortfall, then Tenant shall have no further rights under this section and the Lease will terminate as set forth above. For purposes of this Paragraph 15, an uninsured casualty does not include a hazard or peril that Landlord is required to insure against hereunder, but for which the cost to repair the damage and undertake the restoration work is less than

the deductible on Landlord's insurance policy(ies). If Landlord's restoration work exceeds the anticipated completion date set forth in the Completion Estimate by more than [***] ([***]) days, subject to Force Majeure and delays caused by Tenant, then Tenant shall again have the right to terminate the Lease by written notice to Landlord provided, however, if Landlord substantially completes the restoration in said [***] ([***]) day notice period, Tenant's notice of termination shall be null and void and this Lease shall continue in full force and effect. In addition, Tenant may terminate this Lease if the Premises are damaged during the last [***] ([***]) months of the Lease Term and Landlord reasonably estimates that it will take more than [***] ([***]) [***] following the date that Landlord learns of the damage to repair such damage. Base Rent and Tenant's Proportionate Share of Operating Expenses shall be abated for (i) the period of repair and restoration by Landlord in the proportion which the area of the Premises, if any, that is rendered unusable for the reasonable conduct of Tenant's business because of the casualty or related restoration work bears to the total area of the Premises, and (ii) for such additional period reasonably required for Tenant's restoration of Tenant Improvements and/or Tenant-Made Alterations or equipment installed by Tenant but only to the extent that Landlord has rent loss insurance proceeds with respect to such additional period. If Tenant or Landlord terminates the Lease pursuant to the terms of this Paragraph 15, then notwithstanding anything to the contrary in this Lease, (i) Tenant shall have no restoration obligations, (ii) Landlord shall return the Letter of Credit to Tenant within [***] ([***]) days after Lease termination, (iii) Tenant shall be entitled to retain all insurance proceeds of any type, and in any amount, payable pursuant to Tenant's insurance policies, and neither Landlord nor Landlord's lender shall have any claim or right to said proceeds, and (iv) Landlord shall be entitled to retain all insurance proceeds of any type, and in any amount, payable pursuant to Landlord's insurance policies, and Tenant shall have no claim or right to said proceeds. Notwithstanding the foregoing, if all or any portion of Premises are wholly or partially damaged or destroyed as a result of the willful misconduct of Tenant or any Tenant Party, then Tenant shall (i) not be entitled to terminate this Lease (notwithstanding the provisions of subparagraph (a) above), and (ii) pay to Landlord the full amount of the deductible under Landlord's insurance policy (which deductible shall be commercially reasonable, based on the deductibles of other institutional owners of commercial properties similar to the Premises in the market in which the Premises is located), and this Lease shall continue in full force and effect without any abatement or reduction in Base Rent or Operating Expenses or other payments owed by Tenant. The provisions of this Paragraph 15 shall constitute Tenant's sole and exclusive remedy in the event of damage or destruction to the Premises or Project, and Tenant waives and releases all statutory rights and remedies in favor of Tenant in the event of damage or destruction, including without limitation those available under California Civil Code Sections 1932 and 1933(4). No damages, compensation or claim shall be payable by Landlord for any inconvenience, any interruption or cessation of Tenant's business, or any annoyance, arising from any damage or destruction of all or any portion of the Premises or Project.

16. **Condemnation**. If any part of the Premises or Common Areas should be taken for any public or quasi-public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof (a "**Taking**" or "**Taken**"), and the Taking would prevent or materially interfere with access to or Tenant's use of the Premises then Tenant, by written notice to Landlord, may terminate this Lease. If part of the Premises shall be Taken, and this Lease is not terminated as provided above, the Base Rent payable hereunder during the unexpired Lease Term shall be reduced to such extent as may be fair and reasonable under the circumstances, and Landlord shall restore the Premises as near as reasonably attainable to its condition prior to the Taking. In the event of any such Taking, Landlord shall be entitled to receive the portion of the award appliable to condemnation of the land and loss of the portion of the Building constructed by Landlord, and Tenant shall be entitled to receive the portion of the award applicable to loss of or damage to Tenant's trade fixtures or personal property, interruption of Tenant's business, Tenant's loss of goodwill; Tenant's moving costs; and Tenant's interest in the Tenant Improvements (to the extent the same were paid solely by Tenant without the benefit of the Tenant Improvement Allowance) and any Tenant-Made Alterations. Tenant hereby acknowledges and agrees that a governmentally mandated closure of the Premises, Building and/or Project and/or of Tenant's business for the purpose of protecting public health and safety (including, without limitation, to protect against acts of war or the spread of communicable diseases or infestations) shall not constitute a temporary Taking for "public use" entitling Tenant to an abatement of Rent, award or any other remedy under this Lease, at law or in equity. This Lease sets forth the terms and conditions upon which this Lease may terminate in the event of any Taking. Accordingly, Landlord and Tenant each hereby waive the provisions of any statutes (including, without limitation, Section 1265.130 of the California Code of Civil Procedure) permitting either party to terminate this Lease as a result of a Taking.

17. **Assignment and Subletting**.

(a) Without Landlord's prior written consent (which shall not be unreasonably withheld, conditioned or delayed), Tenant shall not assign this Lease or sublease the Premises or any part thereof or mortgage, pledge, or hypothecate its leasehold interest or grant any concession or license within the Premises (each being a "**Transfer**") and any attempt to do any of the foregoing shall be void and of no effect. For purposes of this Paragraph 17, a transfer of the ownership interests controlling Tenant shall not be deemed a Transfer of this Lease so long as Tenant is a publicly traded company. Notwithstanding the above, Tenant may assign or sublet the Premises, or any part thereof to (a "**Permitted Transfer**") (X) any entity controlling Tenant, controlled by Tenant or under common control with Tenant (a "**Tenant Affiliate**"), (Y) to any entity that purchases all or substantially all of Tenant's business, purchases all or substantially all of the assets of Tenant, or purchases all or substantially all of, or a majority or controlling share of, the stock, partnership interests or other membership interests of Tenant; or (Z) to the surviving entity following a merger, consolidation or other reorganization of Tenant, without the prior written consent of Landlord; provided, however, Tenant shall provide at least [***] ([***]) days written notice prior to assigning this Lease to, or entering into any sublease with, any Tenant Affiliate, and in the case of (Z) above, the assignee must have a net worth (calculated in accordance with generally accepted accounting principles, consistently applied) greater than or equal to that of Tenant as of the date of this Lease. Tenant shall reimburse Landlord for all of Landlord's reasonable out-of-pocket expenses in connection with any Transfer, other than to a Tenant Affiliate. Tenant acknowledges and agrees that Landlord may withhold its consent to any proposed assignment or subletting for any reasonable basis including, but not limited to: (i) Tenant is in default of this Lease; (ii) the assignee or subtenant is unwilling to assume in writing all of Tenant's obligations hereunder; (iii) the assignee or subtenant has a financial condition which is reasonably unsatisfactory to Landlord or Landlord's mortgagee; (iv) the Premises will be used for different purposes than those set forth in Paragraph 3(a), or (v) the proposed assignee or subtenant or an affiliate thereof is an existing tenant in the Project or is or is currently party to a Letter of Intent with Landlord regarding space within the Project and Landlord has sufficient vacant space in the Project available to lease to said proposed assignee or subtenant.

(b) Notwithstanding any Transfer, Tenant and any guarantor or surety of Tenant's obligations under this Lease shall at all times remain fully responsible and liable for the payment of the rent and for compliance with all of Tenant's other obligations under this Lease (regardless of whether Landlord's approval has been obtained for any such Transfer). In the event that the rent due and payable by a sublessee or assignee (or a combination of the rental payable under such sublease or assignment plus any bonus or other consideration therefor or incident thereto) less all actual and reasonable costs or expenses incurred by Tenant in connection with the sublease or assignment, including, without limitation, reasonable tenant concessions and allowances, including, without limitation, tenant improvement costs and allowances and any free rent periods, brokerage fees (not to exceed market rates), and reasonable legal fees with respect to the sublease or assignment, exceeds the rental payable under this Lease, exceeds the rental payable under this Lease, then Tenant shall be bound and obligated to pay Landlord as additional rent hereunder [***] percent ([***]%) of such excess rental and other excess consideration within [***] ([***]) days following receipt thereof by Tenant. If such Transfer is for less than all of the Premises, such excess rental and other excess consideration shall be calculated on a rentable square foot basis, but shall also take into account the square footage of shared space (i.e. a shared lab) made available to the transferee. Tenant shall not be required to share rent for an assignment or sublease that is a Permitted Transfer.

(c) If this Lease is assigned or if the Premises is subleased (whether in whole or in part) or in the event of the mortgage, pledge, or hypothecation of Tenant's leasehold interest or grant of any concession or license within the Premises or if the Premises be occupied in whole or in part by anyone other than Tenant, then upon a default by Tenant hereunder Landlord may collect rent from the assignee, sublessee, mortgagee, pledgee, party to whom the leasehold interest was hypothecated, concessionee or licensee or other occupant and, except to the extent set forth in the preceding subparagraph, apply the amount collected to the next rent payable hereunder; and all such rentals collected by Tenant shall be held in trust for Landlord and immediately forwarded to Landlord. No such transaction or collection of rent or application thereof by Landlord, however, shall be deemed a waiver of these provisions or a release of Tenant from the further performance by Tenant of its covenants, duties, or obligations hereunder. Any approved assignment or sublease shall be expressly subject to the terms and conditions of this Lease. Landlord's consent to any Transfer shall not waive Landlord's rights as to any subsequent Transfers. Notwithstanding anything to the contrary contained in this Lease, if Tenant or any proposed transferee claims that Landlord has unreasonably withheld or delayed its consent under this Paragraph 17 or otherwise has breached or acted unreasonably under this Paragraph 17, then Tenant shall have the right to seek any and all remedies available at law or in equity; provided,

however, that Tenant hereby waives any right at law or equity to terminate this Lease including, without limitation, its rights under Section 1995.310 of the California Civil Code or under any similar law, statute or ordinance now or hereafter in effect.

18. **Intentionally Omitted.**

19. **Inspection and Access**. Landlord and its agents, representatives, and contractors may enter the Premises (upon not less than [***] ([***]) Business Days' prior written notice (an "**Entry Notice**"), except in the event of an emergency in which case only so much notice as is reasonable under the circumstances, if any, shall be required) during Business Hours (or at any time in the event of an emergency) to (a) inspect the Premises and to make such repairs as may be required or permitted pursuant to this Lease, (b) show the Premises to prospective purchasers, or (c) during the last [***] ([***]) months of the Lease Term, to prospective tenants. Each Entry Notice shall include the following information: (i) the proposed dates and times of such entry (which dates and times shall conform to the requirements of this Paragraph 19); (ii) the purpose of such entry (including whether such entry is required by Landlord's lender, or Landlord's lender's agents and/or contractors); and (iii) to the extent such information is then available to Landlord, the identity of the persons entering the Premises. Tenant may institute reasonable security protocols. In connection with any entry into the Premises by Landlord, its agents, representatives or contractors, Landlord shall (x) schedule entries in advance with Tenant, (y) comply with all applicable Legal Requirements applicable to Tenant’s use and operations within the Premises, and (z) use reasonable efforts to minimize any unreasonable interference with Tenant's business operations.

20. **Quiet Enjoyment**. So long as there is no Tenant Event of Default, Tenant shall, subject to the terms of this Lease, all Legal Requirements and matters of record existing as of the date of this Lease, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under Landlord.

21. **Surrender**. No act by Landlord shall be an acceptance of a surrender of the Premises, and no agreement to accept a surrender of the Premises shall be valid unless it is in writing and signed by Landlord. Upon termination of the Lease Term or earlier termination of Tenant's right of possession, subject to the removal requirements set forth in Paragraph 12(d), Tenant shall surrender the Premises to Landlord in good usable condition, broom clean, ordinary wear and tear and casualty loss and condemnation covered by Paragraphs 15 and 16 excepted. A minimum of [***] ([***]) days prior to the expiration or earlier termination of this Lease, Landlord and Tenant shall coordinate a joint inspection of the Premises. Any Trade Fixtures, Tenant-Made Alterations and property not removed by Tenant prior to Lease expiration or termination shall be deemed abandoned and may be stored, removed, and disposed of by Landlord (at Tenant's expense if the Lease required removal), and Tenant waives all claims against Landlord for any damages resulting from Landlord's retention and disposition of such property. If Tenant fails to perform any obligation prior to the expiration or earlier termination of this Lease, Landlord may, but shall not be obligated to, perform such obligation and Tenant shall pay Landlord all costs associated therewith, plus an administrative fee of [***]% of such costs, promptly upon Landlord's delivery to Tenant of an invoice therefor together with reasonably supporting documentation. The provisions of this paragraph shall survive the expiration or earlier termination of this Lease for [***] months after Lease expiration or termination.

22. **Holding Over**. If Tenant fails to vacate the Premises after the termination of the Lease Term, Tenant shall be, at Landlord's sole election, a tenant at will or at sufferance, and Tenant shall pay, in addition to any other rent or other sums then due Landlord, base rental equal to [***]% of the Base Rent in effect on the expiration or termination date, computed on a monthly basis for each month or part thereof during such holdover, even if Landlord consents to such holdover (which consent shall be effective only if in writing). All other payments shall continue under the terms of this Lease. In addition, if Landlord provides Tenant with written notice of any succeeding contractual obligations of Landlord with a bona fide third party that requires Landlord to obtain possession of the Premises (which notice may be given prior to the expiration or earlier termination of the Lease Term), then Tenant shall be liable to Landlord for, and Tenant shall indemnify, protect, defend and hold Landlord harmless from and against, any Claims suffered by Landlord in connection with such contractual obligations as a result of any holding over by Tenant that continues for more than [***] ([***]) days after Landlord's delivery of such notice (including the right to recover consequential damages suffered by Landlord), including, without limitation, damages and costs related to any successor tenant of the Premises to whom Landlord could not deliver possession of the Premises when promised. No holding over by Tenant, whether with or without consent of Landlord, shall operate to extend this Lease except as otherwise expressly provided, and this Paragraph 22 shall not be construed as consent for Tenant to retain possession of the Premises.

23. **Events of Default**. Each of the following events shall be an event of default ("**Event of Default**") by Tenant under this Lease:

(a) Tenant shall fail to pay any installment of Base Rent or any other payment required herein when due, and such failure shall continue for a period of [***] ([***]) days from Tenant's receipt of written notice of delinquency from Landlord.

(b) Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in Paragraph 23(a) above, and except as otherwise expressly provided herein, such default shall continue for more than [***] ([***]) days after Landlord shall have given Tenant written notice of such default (unless such performance will, due to the nature of the obligation, require a period of time in excess of [***] ([***]) days, then after such period of time as is reasonably necessary but in no event longer than [***] ([***]) days from Landlord's notice).

Notwithstanding anything to the contrary in this Lease, Tenant shall not be deemed to be, or to have been, in "Event of Default" of Tenant's Lease obligations unless and until Tenant has failed to comply with a Lease requirement, received written notice of same from Landlord, and failed to cure the non-compliance within the time limits set forth in this Paragraph 23.

24. **Landlord's Remedies**. Upon the occurrence of any Event of Default, Landlord shall have the following rights and remedies, in addition to those allowed by law or in equity, any one or more of which may be exercised or not exercised without precluding the Landlord from exercising any other remedy provided in this Lease or otherwise allowed by law or in equity:

(a) **Termination of Lease**. Landlord may terminate this Lease and Tenant's right to possession of the Premises. If Tenant has abandoned and vacated the Premises, the mere entry of the Premises by Landlord in order to perform acts of maintenance, cure defaults, preserve the Premises or to attempt to relet the Premises, or the appointment of a receiver in order to protect the Landlord's interest under this Lease, shall not be deemed a termination of Tenant's right to possession or a termination of this Lease unless Landlord has notified Tenant in writing that this Lease is terminated. Notification of any default described in Paragraph 23 of this Lease shall be in lieu of, and not in addition to, any notice required under Section 1161 *et seq*. of the California Code of Civil Procedure. If Landlord terminates this Lease and Tenant's right to possession of the Premises, Landlord may recover from Tenant:

(1) The worth at the time of the award of unpaid rent which had been earned at the time of termination; plus

(2) The worth at the time of the award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(3) The worth at the time of the award of the amount by which the unpaid rent for the balance of the Lease Term after the time of the award exceeds the amount of such rental loss that Tenant proves could be reasonably avoided; plus

(4) Any other amounts necessary to compensate the Landlord for all of the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom.

All computations of the "worth at the time of the award" of amounts recoverable by Landlord under (1) and (2) hereof shall be computed by allowing interest at the Default Rate. The "worth at the time of the award" recoverable by Landlord under (3) and the discount rate for purposes of determining any amounts recoverable under (4), if applicable, shall be computed by discounting the amount recoverable by Landlord at the discount rate of the Federal Reserve Bank, San Francisco, California, at the time of the award plus [***] percent ([***]%).

Upon termination of this Lease, whether by lapse of time or otherwise, Tenant shall immediately vacate the Premises and deliver possession to Landlord, and Landlord shall have the right to re-enter the Premises.

(b)**Lease to Remain in Effect**. Notwithstanding Landlord's right to terminate this Lease, Landlord may, at its option, even though Tenant has breached this Lease and abandoned the Premises, continue this Lease in full force and effect and not terminate Tenant's right to possession, and enforce all of Landlord's rights and remedies under this Lease. In such event, Landlord shall have the remedy described in California Civil Code Section 1951.4 (Landlord may continue the Lease in effect after Tenant's breach and abandonment and recover rent as it becomes due, if Tenant has a right to sublet or assign, subject only to reasonable limitations). Further, in such event Landlord shall be entitled to recover from Tenant all costs of maintenance and preservation of the Premises, and all costs, including attorneys' fees and receivers' fees, incurred in connection with appointment of and performance by a receiver to protect the Premises and Landlord's interest under this Lease. No re-entry or taking possession of the Premises by Landlord shall be construed as an election to terminate this Lease unless a notice (signed by a duly authorized representative of Landlord) of intention to terminate this Lease is given to Tenant.

(c)**All Sums Collectible as Rent**. All sums due and owing to Landlord by Tenant under this Lease shall be collectible by Landlord as rent.

(d)**No Surrender**. No act or omission by Landlord or its agents during the Lease Term shall be an acceptance of a surrender of the Premises, and no agreement to accept a surrender of the Premises shall be valid unless made in writing and signed by a duly authorized representative of Landlord. Landlord shall be entitled to a restraining order or injunction to prevent Tenant from defaulting under any of its obligations other than the payment of rent or other sums due hereunder.

(e)**Effect of Termination**. Neither the termination of this Lease nor the exercise of any remedy under this Lease or otherwise available at law or in equity shall affect Landlord's right of indemnification set forth in this Lease or otherwise available at law or in equity for any act or omission of Tenant, and all rights to indemnification and other obligations of Tenant intended to be performed after termination of this Lease shall survive termination of this Lease.

25. **Tenant's Remedies/Limitation of Liability**.

(a)Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within [***] ([***]) days after written notice from Tenant specifying such failure (unless such performance will, due to the nature of the obligation, require a period of time in excess of [***] ([***]) days, then after such period of time as is reasonably necessary). All obligations of Landlord hereunder shall be construed as covenants, not conditions. Except as otherwise expressly set forth in Paragraph 25(b) below, Tenant hereby waives the benefit of any laws granting it the right to perform Landlord's obligations or the right to terminate this Lease or withhold rent on account of any Landlord default. All obligations of Landlord under this Lease will be binding upon Landlord only during the period of its ownership of the Premises and not thereafter. The term "Landlord" in this Lease shall mean only the owner, for the time being of the Premises, and in the event of the transfer by such owner of its interest in the Premises, such owner shall thereupon be released and discharged from all obligations of Landlord thereafter accruing, but such obligations shall be binding during the Lease Term upon each new owner for the duration of such owner's ownership. Any liability of Landlord (and its partners, shareholders or members) to Tenant (or any person or entity claiming by, through or under Tenant) for any default by Landlord under this Lease or arising out of the relationship between Landlord and Tenant shall be limited solely to Tenant's actual direct, but not consequential, damages therefor and shall be recoverable only from Landlord's equity interest in the Project, and in no event shall any personal liability be asserted against Landlord’s, shareholders, members, directors, employees or agents in connection with this Lease nor shall any recourse be had to any other property or assets of Landlord.

(b)Notwithstanding the foregoing, in the event that Landlord fails within [***] ([***]) days after receipt of written notice from Tenant (or [***] ([***]) Business Days after written notice in the case of an emergency involving the likelihood of imminent harm to person or material damage to property) to perform any maintenance and/or make any repairs to the Premises which Landlord is required to perform and/or make pursuant to the terms of this Lease, then Tenant may give Landlord an additional [***] ([***]) Business Days written notice (one (1) Business Day in the case of emergency as described above) (such additional notice, a "**Self-Help Notice**")

specifying that Tenant is going to take such required action (which notice must describe in reasonable detail the action required of Landlord pursuant to this Lease, and state in the subject line in boldface, ALL CAPS that "**LANDLORD'S ATTENTION IS REQUIRED. IF LANDLORD FAILS TO COMMENCE PERFORMANCE OF ITS OBLIGATIONS WITHIN** [***] **(**[***]**) BUSINESS DAYS [**[***] **(**[***]**) BUSINESS DAY IN THE EVENT OF AN EMERGENCY] FOLLOWING LANDLORD'S RECEIPT OF THIS NOTICE, TENANT MAY EXERCISE IT'S "SELF-HELP " REMEDY PURSUANT TO PARAGRAPH 25(B) OF THE LEASE**"). If Landlord has not commenced to repair such problem (or reasonably objected to the required action described in Tenant's notice) within the applicable period after Landlord's receipt of the Self-Help Notice from Tenant (which Self-Help Notice must conform with the foregoing requirements), then Tenant shall have the right to perform the required action of Landlord and, provided that Landlord has not reasonably disputed or objected to the required action described in Tenant's notice, Landlord shall reimburse Tenant for the actual and reasonable costs thereof (except to the extent Tenant would otherwise ultimately have been responsible for such costs under this Lease, including through Operating Expenses), within [***] ([***]) days after presentation of a reasonably detailed invoice demonstrating the expenses incurred by Tenant. In the event Tenant takes such action, and such work may affect the structure, systems or exterior appearance of the Building, then (except in the case of an emergency involving the likelihood of imminent harm to person or material damage to property where use of the same is not reasonably practicable) Tenant shall use only those contractors used by Landlord in the Project for such work, if those contractors are readily available to perform such work and if not then by similarly qualified licensed contractors approved by Landlord (which approval shall not be unreasonably withheld, conditioned or delayed). All work performed by Tenant pursuant to this Paragraph 25(b) shall be subject to all of the terms and conditions of this Lease (including, without limitation, Paragraphs 11 and 12 above), except that Landlord's consent shall not be required (to the extent the other provisions of this paragraph have been complied with by Tenant). In no event shall Tenant be entitled to offset any amounts owed by Landlord to Tenant under this Lease against Tenant's obligations to Landlord; provided, however, if Tenant obtains a final unappealable judgment against Landlord confirming Landlord's obligation to reimburse Tenant (a "**Final Judgment**"), then Tenant may offset the amount of such Final Judgment against rent to the extent Landlord has not paid the same to Tenant.

26. **Dispute Resolution**. Each controversy, dispute or claim between Landlord and Tenant arising out of, based upon or relating to this Lease, with the exception of claims relating to Landlord’s exercise of any unlawful detainer rights pursuant to California law or rights or remedies used by Landlord to gain possession of the Premises or terminate Tenant’s right of possession of the Premises (which disputes shall be resolved by suit filed in the Superior Court of Alameda County, California), will be resolved by a reference proceeding in Alameda County, California in accordance with the provisions of Sections 638 *et seq*. of the California Code of Civil Procedure (“CCP”), or their successor sections. The Parties shall cooperate in good faith to ensure that all necessary and appropriate parties are included in the judicial reference proceeding. In the event litigation is filed based on any such dispute, the following shall apply:

(a)The proceeding shall be brought and held in Alameda County, unless Landlord and Tenant agree to an alternative venue. In disputes required to be submitted to a reference proceeding, either party may seek injunctive or other provisional relief from the referee or from a court of competent jurisdiction as set forth herein. At the outset of the dispute, a party may file an application for any provisional or injunctive remedy with the court, but only upon the ground that the decision to which the applicant may be entitled to may be rendered ineffectual without such provisional or injunctive relief.

(b)Landlord and Tenant shall agree upon a single referee who shall have the power to try any and all of the issues raised, whether of fact or of law, which may be pertinent to the matters in dispute, and to issue a statement of decision thereon to the court. The referee shall be (1) a retired Judge; and (2) selected by mutual agreement of Landlord and Tenant; provided, however, if they cannot so agree within [***] ([***]) days after the filing of any claim, the referee shall be promptly selected by the Presiding Judge of the Alameda County Superior Court (or its representative). Each party shall have one peremptory challenge pursuant to CCP 170.6. The referee shall be appointed to sit as a temporary judge, with all of the powers of a temporary judge, as authorized by law, and upon selection should take and subscribe to the oath of office as provided for in Rule 244 of the California Rules of Court (or any subsequently enacted Rule).

(c)The referee shall be required to determine all issues in accordance with existing case law and the statutory laws of the State of California. The rules of evidence applicable to proceedings at law in the State of California will be applicable to the reference proceeding. The referee shall be empowered to enter equitable as well

as legal relief, to provide all temporary and/or provisional remedies and to enter equitable orders that will be binding upon the Parties.

(d)The referee may require one or more pre-trial conferences.

(e)Landlord and Tenant shall be entitled to discovery, and the referee shall oversee discovery and may enforce all discovery orders in the same manner as any trial court judge.

(f)Except as expressly set forth in this Lease, the referee shall determine the manner in which the reference proceeding is conducted, including the time and place of all hearings, the order or presentation of evidence, and all other questions that arise with respect to the course of the reference proceeding.

(g)All proceedings and hearings conducted before the referee, except for trial, shall be conducted without a court reporter, except that when any party so requests, a court reporter will be used at any hearing conducted before the referee. The party making such a request shall have the obligation to arrange for and pay for the court reporter. A stenographic record of the trial shall be made. The cost of the court reporter at the trial shall be borne equally by Landlord and Tenant. To the extent permissible under the CCP, the parties shall instruct the referee to issue an order providing that all pleadings, motions, discovery responses, depositions, testimony, and documents exchanged or filed in relation to the judicial reference proceeding be kept strictly confidential. The parties agree that any party may seek a separate order from a court of competent jurisdiction enforcing the referee's order protecting the disclosure of pleadings, motions, discovery responses, depositions, testimony, and documents exchanged or filed in the arbitration, provided that such motion and responses thereto shall be filed under seal.

(h)The referee’s statement of decision shall contain findings of fact and conclusions of law to the extent applicable.

(i) The referee shall have the authority to rule on all post-trial motions in the same manner as a trial judge.

(j)Landlord and Tenant shall promptly and diligently cooperate with each other and the referee and perform such acts, as may be necessary, for an expeditious resolution of the dispute.

(k)All fees and costs of the referee shall be paid [***] by Landlord and [***] by Tenant. Each party shall initially bear its own costs and attorneys’ fees, but upon motion of the prevailing party, the referee shall, in his statement of decision, award all costs and expenses, including fees and costs paid to the referee, and reasonable attorneys’ fees (payable at standard hourly rates), to the prevailing party in accordance with California law. The prevailing party on appeal shall also be entitled to costs and reasonable attorneys’ fees incurred in connection with any appeal from any judgment entered by the Superior Court.

(l)The statement of decision of the referee upon all of the issues considered by the referee shall be binding upon the parties, and upon filing of the statement of decision with the clerk of the court, or with the judge where there is no clerk, judgment may be entered thereon. The referee shall issue an order providing, that any award issued by the referee shall be entered under seal in such court. The decision of the referee shall be appealable as if rendered by the court. This provision shall in no way be construed to limit any valid cause of action that may be brought by any party.

(m)The above procedures provide for resolution of disputes (except for unlawful detainer) through general judicial reference, or, in the alternative, binding arbitration. In either event, Landlord and Tenant expressly acknowledge and accept that they are waiving their respective rights to a jury trial. Each party further acknowledges and agrees that this paragraph has been negotiated at arms’ length with the assistance of legal counsel and the legal effect fully explained, and that its provisions constitute a knowing and voluntary agreement.

27. **Subordination**.

(a)Subject to the terms of this Paragraph 27, this Lease and Tenant's interest and rights hereunder are and shall be subject and subordinate at all times to the lien of any deed of trust or mortgage or any

ground lease, now existing or hereafter created on or against the Project or the Premises, and all amendments, restatements, renewals, modifications, consolidations, refinancing, assignments and extensions thereof, without the necessity of any further instrument or act on the part of Tenant. Tenant agrees, at the election of the holder of any such mortgage, to attorn to any such holder. Notwithstanding anything to the contrary contained herein, Tenant's obligation to subordinate Tenant's interest and rights hereunder to deeds of trust, mortgage and/or ground lease and Tenant's obligation to attorn to any holder shall be conditioned upon Tenant's receipt of a commercially reasonable subordination, attornment and non-disturbance agreement (an "**SNDA")** from the holder under any deed of trust or mortgage or ground lease encumbering the Premises that provides (a) Tenant's possession of the Premises and other rights hereunder shall not be disturbed in any proceeding to foreclose the mortgage or in any other action instituted in connection with such mortgage so long as Tenant is not in default beyond applicable notice and cure periods under this Lease, (b) Tenant shall not be named as a defendant in any foreclosure action or proceeding which may be instituted by the holder of such mortgage, (c) in the event of casualty or condemnation, the holder of the mortgage agrees to make available the insurance and condemnation proceeds for the repair and restoration of the Premises by Landlord in accordance with Sections 15 and 16 of this Lease, and (d) if the holder of the mortgage or any other person acquires title to the Premises through foreclosure or otherwise, the Lease shall continue in full force and effect as a direct lease between Tenant and the new owner, and the new owner shall assume and perform all of the terms, covenants and conditions of the Lease, in each case subject to commercially reasonable modifications customarily agreed to by similar tenants and institutional lenders. Tenant agrees within [***] ([***]) days after receipt of a written request therefor from Landlord, to execute, acknowledge and deliver any such substantially similar SNDA subject to commercially reasonable modifications customarily agreed to by similar tenants and institutional lenders.

(b)Notwithstanding the foregoing, any such holder may at any time subordinate its mortgage to this Lease, without Tenant's consent, by notice in writing to Tenant, and thereupon this Lease shall be deemed prior to such mortgage without regard to their respective dates of execution, delivery or recording and in that event such holder shall have the same rights with respect to this Lease as though this Lease had been executed prior to the execution, delivery and recording of such mortgage and had been assigned to such holder. The term "**mortgage**" whenever used in this Lease shall be deemed to include deeds of trust, security assignments and any other encumbrances, and any reference to the "**holder**" of a mortgage shall be deemed to include the beneficiary under a deed of trust.

(c)Tenant shall not seek to enforce any remedy it may have for any default on the part of Landlord without first giving written notice by certified mail, return receipt requested, specifying the default in reasonable detail to any mortgage holder whose address has been delivered to Tenant pursuant to the Lease notice provisions herein, and affording such mortgage holder a reasonable opportunity, not to exceed [***] ([***]) days (or such additional time as reasonably necessary to cure not to exceed [***] days), to perform Landlord's obligations hereunder. Notwithstanding any such attornment or subordination of a mortgage to this Lease, the holder of any mortgage shall not be liable for any acts of any previous landlord unless the same represent an ongoing obligation or breach, shall not be obligated to install any tenant improvements, and shall not be bound by any amendment to which it did not consent in writing nor any payment of rent made more than one month in advance.

28. **Mechanic's Liens**. Tenant has no express or implied authority to create or place any lien or encumbrance of any kind upon, or in any manner to bind the interest of Landlord or Tenant in, the Premises or to charge the rentals payable hereunder for any claim in favor of any person dealing with Tenant, including those who may furnish materials or perform labor for any construction or repairs. Landlord may record, at its election, notices of non-responsibility pursuant to California Civil Code Section 8444 in connection with any work performed by Tenant. Tenant covenants and agrees that it will pay or cause to be paid all sums legally due and payable by it on account of any labor performed or materials furnished in connection with any work performed on the Premises and that it will save and hold Landlord harmless from all loss, cost or expense based on or arising out of asserted claims or liens against the leasehold estate or against the interest of Landlord in the Premises or under this Lease. Tenant shall give Landlord immediate written notice of the placing of any lien or encumbrance against the Premises and cause such lien or encumbrance to be discharged within [***] ([***]) days of Tenant's awareness thereof; provided, however, Tenant may contest such liens or encumbrances as long as such contest prevents foreclosure of the lien or encumbrance and Tenant causes such lien or encumbrance to be bonded or insured over in a manner satisfactory to Landlord within such [***] ([***]) day period. Without limiting any other rights or remedies of Landlord, if Tenant fails for any reason to cause a lien or encumbrance to be discharged within [***] ([***]) days of the filing or recording thereof, then Landlord may take such action(s) as is reasonably necessary to cause the discharge of the same (including, without limitation,

by paying any amount demanded by the party who has filed or recorded such lien or encumbrance, regardless of whether the same is in dispute), and Landlord shall be reimbursed by Tenant for all costs and expenses incurred by Landlord in connection therewith within [***] ([***]) business days following written demand therefor.

29. **Estoppel Certificates**. Tenant agrees, from time to time, within [***] ([***]) days after request of Landlord, to execute and deliver to Landlord, or Landlord's designee, an estoppel certificate requested by Landlord, stating that this Lease is in full force and effect, the date to which rent has been paid, that, to Tenant's actual knowledge, Landlord is not in default hereunder (or specifying in detail the nature of Landlord's default), the termination date of this Lease and such other matters pertaining to this Lease as may be reasonably requested by Landlord. Landlord agrees, from time to time, within [***] ([***]) days after request of Tenant, to execute and deliver to Tenant, or Tenant's designee, an estoppel certificate requested by Tenant, stating that this Lease is in full force and effect, the date to which rent has been paid, that, to Landlord's actual knowledge, Tenant is not in default hereunder (or specifying in detail the nature of Tenant's default), the termination date of this Lease and such other matters pertaining to this Lease as may be reasonably requested by Tenant.

30. **Hazardous Materials**.

(a)Hazardous Materials Certificate. Prior to executing this Lease, Tenant has delivered to Landlord Tenant's executed initial Hazardous Materials Disclosure Certificate (the "**Initial HazMat Certificate**"), a copy of which is attached hereto as Exhibit D. Tenant covenants, represents and warrants to Landlord that the information in the Initial HazMat Certificate is true and correct and accurately describes the use(s) of Hazardous Materials (as defined in Exhibit E) which will be made and/or used on the Premises by Tenant. Tenant shall, commencing with the date which is [***] ([***]) [***] from the Commencement Date and continuing every year thereafter, deliver to Landlord, an executed Hazardous Materials Disclosure Certificate (the "**HazMat Certificate**") describing Tenant's then present use of Hazardous Materials on the Premises, and any other reasonably necessary documents as requested by Landlord. The HazMat Certificates required hereunder shall be substantially in the form attached hereto as Exhibit D.

(b)The terms of this Lease regarding Hazardous Materials, and the presence, use, storage, handling and disposal thereof in and from the Premises, are set forth in Exhibit E attached hereto.

(c)Landlord shall be responsible, at its sole cost and not as Operating Expenses, for the removal, clean-up or other remediation or abatement of any Hazardous Materials existing in, on, or under the Premises or Property as of the date of mutual execution of this Lease and which are classified as Hazardous Materials under applicable Hazardous Materials Laws as of the date of mutual execution of this Lease except to the extent such Hazardous Materials are brought to the Premises by Tenant or any Tenant Party. Landlord shall have the right to determine the form and scope of any such remediation or abatement provided that it complies with applicable Hazardous Materials Laws.

31. **Rules and Regulations**. Tenant shall, at all times during the Lease Term and any extension thereof, comply with all reasonable rules and regulations at any time or from time to time established by Landlord covering use of the Premises and the Project. The current rules and regulations are attached hereto. In the event of any conflict between said rules and regulations and other provisions of this Lease, the other terms and provisions of this Lease shall control. Notwithstanding anything to the contrary in this Lease, Tenant shall not be required to comply with new rules and regulations: (i) that are not applied equitably to other Property tenants to the extent applicable, (ii) that will increase Tenant's obligations, costs or liabilities (by more than a *de minimis* amount), or (iii) that will materially interfere with Tenant's use of or access to the Premises.

32. **Security Service**. Tenant acknowledges and agrees that, while Landlord may (but shall not be obligated to) monitor the Project, Landlord is not providing any security services with respect to the Premises and that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any other damage suffered or incurred by Tenant in connection with any unauthorized entry into the Premises or any other breach of security with respect to the Premises.

33. **Force Majeure**. Landlord and Tenant shall not be held responsible for delays in the performance of its obligations hereunder when resulting from or arising out of any foreseen or unforeseen causes beyond the reasonable control of Landlord or Tenant including, but not limited to, strikes, lockouts, labor disputes, acts of God,

inability to obtain or shortages in labor or materials or reasonable substitutes therefor, governmental restrictions, governmental regulations, governmental controls, governmental orders or directives, delay in issuance of permits, inspections or approvals, utility company delays, enemy or hostile governmental action, civil commotion, inclement weather, fire or other casualty, current or future pandemics (*e.g.*, the coronavirus disease (COVID-19)), epidemics and wide-spread public health emergencies, eviction moratoria, and other causes beyond the reasonable control of Landlord or Tenant ("**Force Majeure**") provided that this shall not (i) apply to excuse any failure of either party to comply with any monetary obligations hereunder, or (ii) apply to Tenant's obligation to vacate and surrender the Premises upon the expiration or earlier termination of this Lease (but subject to the provisions of Paragraph 22 above).

34. **Entire Agreement**. This Lease constitutes the complete and entire agreement of Landlord and Tenant with respect to the subject matter hereof. No representations, inducements, promises or agreements, oral or written, have been made by Landlord or Tenant, or anyone acting on behalf of Landlord or Tenant, which are not contained herein, and any prior agreements, promises, negotiations, or representations are superseded by this Lease. This Lease may not be amended except by an instrument in writing signed by both parties hereto.

35. **Severability**. If any clause or provision of this Lease is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby. It is also the intention of the parties to this Lease that in lieu of each clause or provision of this Lease that is illegal, invalid or unenforceable, there be added, as a part of this Lease, a clause or provision as similar in terms to such illegal, invalid or unenforceable clause or provision as may be possible and be legal, valid and enforceable.

36. **Brokers**. Tenant represents and warrants that it has dealt with no broker, agent or other person in connection with this transaction and that no broker, agent or other person brought about this transaction, other than the brokers set forth in the Basic Lease Provisions above (the "**Brokers**"), and Tenant agrees to indemnify and hold Landlord harmless from and against any claims by any other broker, agent or other person claiming a commission or other form of compensation by virtue of having dealt with Tenant with regard to this leasing transaction.

37. **Miscellaneous**.

(a)Any payments or charges due from Tenant to Landlord hereunder shall be considered rent for all purposes of this Lease.

(b)If and when included within the term "Tenant," as used in this instrument, there is more than one person, firm or corporation, each shall be jointly and severally liable for the obligations of Tenant.

(c)All notices required or permitted to be given under this Lease shall be in writing and shall be sent by registered or certified mail, return receipt requested, or by a reputable national overnight courier service, with proof of delivery and postage prepaid, or by hand delivery and sent to the notice address for each party listed in the Basic Lease Provisions. Either party may by notice given aforesaid change its address for all subsequent notices. Except where otherwise expressly provided to the contrary, notice shall be deemed given upon delivery.

(d)Except as otherwise expressly provided in this Lease or as otherwise required by law, Landlord retains the absolute right to withhold any consent or approval.

(e)At Landlord's request from time to time Tenant shall furnish Landlord with true and complete copies of its most recent annual and quarterly financial statements prepared by Tenant or Tenant's accountants and any other financial information or summaries that Tenant typically provides to its lenders or shareholders. Such annual statements shall be audited by an independent certified public accountant at Tenant's sole cost and expense. Landlord shall hold such financial statements and information in confidence, and shall not disclose the same except: (1) to Landlord's lenders or potential lenders, (2) to potential purchasers of all or a portion of the Project, (3) to attorneys, accountants, consultants or other advisors, (4) otherwise as reasonably necessary for the operation of the Project or administration of Landlord's business, or (5) if disclosure is required by any judicial or administrative order or ruling. Notwithstanding the foregoing, Tenant will have no obligation to provide Landlord with financial statements so long as Tenant's financial information is publicly available.

(f)This Lease shall not be filed by or on behalf of Tenant or Landlord in any public record. At the time this Lease is mutually executed, Tenant and Landlord shall also execute a memorandum of lease ("**MOL**") (in the form reasonably approved by Landlord and Tenant**)** to be filed by Tenant, at Tenant's sole cost and expense, in the Official Records of Alameda County. Notwithstanding the foregoing, upon the expiration or earlier termination of this Lease, Tenant shall execute, acknowledge and deliver to Landlord, in recordable form, a memorandum of termination of lease, in such form as requested by Landlord, which memorandum of termination of lease Landlord shall be authorized to record. The obligation of Tenant to provide such memorandum of termination of lease shall survive the expiration or earlier termination of this Lease.

(g)Each party acknowledges that it has had the opportunity to consult counsel with respect to this Lease, and therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto.

(h)The submission by Landlord to Tenant of this Lease shall have no binding force or effect, shall not constitute an option for the leasing of the Premises, nor confer any right or impose any obligations upon either party until execution of this Lease by both parties.

(i) Words of any gender used in this Lease shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires. The captions inserted in this Lease are for convenience only and in no way define, limit or otherwise describe the scope or intent of this Lease, or any provision hereof, or in any way affect the interpretation of this Lease.

(j)Any amount not paid by Tenant within [***] [***]) days after its due date in accordance with the terms of this Lease shall bear interest from such due date until paid in full at the lesser of the highest rate permitted by applicable law or [***] percent ([***]%) per year. It is expressly the intent of Landlord and Tenant at all times to comply with applicable law governing the maximum rate or amount of any interest payable on or in connection with this Lease. If applicable law is ever judicially interpreted so as to render usurious any interest called for under this Lease, or contracted for, charged, taken, reserved, or received with respect to this Lease, then it is Landlord's and Tenant's express intent that all excess amounts theretofore collected by Landlord be credited on the applicable obligation (or, if the obligation has been or would thereby be paid in full, refunded to Tenant), and the provisions of this Lease immediately shall be deemed reformed and the amounts thereafter collectible hereunder reduced, without the necessity of the execution of any new document, so as to comply with the applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

(k)Construction and interpretation of this Lease shall be governed by the laws of the state in which the Project is located, excluding any principles of conflicts of laws.

(l)Time is of the essence as to the performance of Tenant's obligations under this Lease.

(m)All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof. In the event of a conflict between the rules and regulations attached hereto and the terms of this Lease, the terms of this Lease shall control.

(n)In the event either party shall commence an action to enforce any provision of this Lease, the prevailing party in such action shall be entitled to receive from the other party, in addition to damages, equitable or other relief, any and all costs and expenses incurred, including reasonable attorneys' fees and court costs and the fees and costs of expert witnesses, and fees incurred to enforce any judgment obtained. This provision with respect to attorneys’ fees incurred to enforce a judgment shall be severable from all other provisions of this Lease, shall survive any judgment, and shall not be deemed merged into the judgment. Tenant shall also reimburse Landlord for all costs incurred by Landlord in connection with enforcing its rights under this Lease in a bankruptcy proceeding, or other proceeding under Title 11 of the United States Code, as amended, including without limitation, legal fees, experts' fees and expenses, court costs and consulting fees.

(o)There shall be no merger of the leasehold estate hereby created with the fee estate in the Premises or any part thereof if the same person acquires or holds, directly or indirectly, this Lease or any interest in this Lease and the fee estate in the leasehold Premises or any interest in such fee estate.

(p)To the extent Tenant or its agents or employees discover any material water leakage, water damage or mold in or about the Premises or Project, Tenant shall promptly notify Landlord thereof in writing.

(q)Whenever Tenant requests, by written notice to Landlord, that Landlord take any action not required of it hereunder or give any consent required or permitted under this Lease, Tenant will reimburse Landlord for Landlord's reasonable, out-of-pocket costs payable to third parties and incurred by Landlord in reviewing the proposed action or consent, including reasonable attorneys', engineers' or architects' fees, within [***] days after Landlord's delivery to Tenant of written notice including a statement of such costs. Such fees shall be capped at $[***] total per request unless Landlord notifies Tenant of that costs will exceed such cap prior to commencing Landlord's review. Tenant will be obligated to make such reimbursement without regard to whether Landlord consents to any such proposed action.

(r)All providers of Telecommunications Services shall be required to comply with the rules and regulations of the Building and applicable Legal Requirements and if such services require the installation of conduit, to sign an access agreement on Landlord's commercially reasonable form. Tenant acknowledges that Landlord shall not be required to provide or arrange for any Telecommunications Services and that Landlord shall have no liability to a Tenant-related party in connection with the installation, operation or maintenance of Telecommunications Services or any equipment or facilities relating thereto. Tenant, at its cost and for its own account, shall be solely responsible for obtaining all Telecommunications Services.

(s)Tenant (if a corporation, partnership or other business entity) hereby represents and warrants to Landlord that Tenant is and will remain during the Term a duly formed and existing entity qualified to do business in the state in which the Premises are located, that Tenant has full right and authority to execute and deliver this Lease, that each person signing on behalf of Tenant is authorized to do so. Landlord hereby represents and warrants to Tenant that Landlord is a duly formed and existing entity qualified to do business in the state in which the Premises are located, that Landlord has full right and authority to execute and deliver this Lease, and that each person signing on behalf of Landlord is authorized to do so.

(t)Landlord and Tenant agree that all administrative fees and late charges prescribed in this Lease are reasonable estimates of the costs that Landlord will incur by reason of Tenant's failure to comply with the provisions of this Lease, and the imposition of such fees and charges shall be in addition to all of Landlord's other rights and remedies hereunder or at law, and shall not be construed as a penalty.

(u)***Deleted***.

(v)**Proposition 65**. Tenant acknowledges and agrees that it is exclusively responsible for compliance with California's Safe Drinking Water and Toxic Enforcement Act of 1986 (known as Proposition 65) on the Premises, including but not limited to the Building. Tenant specifically agrees that it is responsible to determine whether the Premises require Proposition 65 warning(s), and when warning obligation(s) are triggered, Tenant must provide clear and reasonable Proposition 65 warnings to persons as provided in the Proposition 65 statutes and regulations. Both parties expressly acknowledge that Landlord is not responsible to assess the Premises for compliance with Proposition 65 or review the adequacy of warnings provided by Tenant. To the extent the Premises are leased to Tenant with Proposition 65 warnings already thereon, these warnings are not a representation by Landlord that the Premises are currently compliant with Proposition 65, and Tenant expressly agrees it retains responsibility to maintain, update, and supplement those warnings, as is necessary for compliance. Tenant agrees to indemnify, defend and hold harmless Landlord and the Indemnitees from and against all claims, demands, liabilities, causes of action, suits, judgments, damages, and expenses (including attorneys' fees) and all losses and damages arising from any alleged violation of Proposition 65 on the Premises.

(w)Notwithstanding any other term or provision in this Lease to the contrary, Tenant shall have not less than [***] ([***]) days after receipt of written notice to pay any non-reoccurring bill or to respond to any Landlord request for written materials (without limiting Tenant's obligations under Paragraph 29 above). For purposes of clarification, this provision does not apply to Tenant's monthly Base Rent and Operating Expense payment, which is a reoccurring expense. Furthermore, any time periods that are not extended by this provision, and

which are for [***] ([***]) days or less, shall be interpreted to mean business days, and shall not include weekend days or holidays.

38. **Modification**. Should any current or prospective mortgagee or ground lessor for the Building or Project or the City of Fremont in connection with the City's approval of the Project require a modification of this Lease, which modification will not impair Tenant's rights or increase Tenant's obligations hereunder (in more than a *de minimis* amount), then and in such event, Tenant agrees that this Lease may be so modified by mutual execution of an Amendment signed by Landlord and Tenant.

39. ***Deleted***.

40. **Limitation of Liability of Landlord's Partners, and Others**. Tenant agrees that any obligation or liability whatsoever of Landlord which may arise at any time under this Lease, or any obligation or liability which may be incurred by Landlord pursuant to any other instrument, transaction, or undertaking contemplated hereby, shall not be personally binding upon, nor shall resort for the enforcement thereof be had to the property of the constituent partners of Landlord or any of their respective directors, officers, representatives, employees or agents, regardless of whether such obligation or liability is in the nature of contract, tort, or otherwise.

41. **OFAC**. Tenant represents and warrants to Landlord that Tenant is currently in compliance with and shall at all times during the Lease Term (including any extension thereof) remain in compliance with the regulations of the Office of Foreign Asset Control ("**OFAC**") of the Department of the Treasury (including those named on OFAC's Specially Designated and Blocked Persons List) and any statute, executive order (including the September 24, 2001, Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action relating thereto. Landlord represents and warrants to Tenant that Landlord is currently in compliance with and shall at all times during the Lease Term (including any extension thereof) remain in compliance with the OFAC regulations (including those named on OFAC's Specially Designated and Blocked Persons List) and any statute, executive order (including the September 24, 2001, Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action relating thereto.

42. **Easements; CC&R's**. Landlord reserves to itself the right, from time to time, to grant such easements, rights and dedications that Landlord deems necessary or desirable, and to cause the recordation of parcel maps, easement agreements and covenants, conditions and restrictions for the efficient operation of the Project, so long as such easements, rights, dedications, maps and covenants, conditions and restrictions (a) do not interfere (in any material respect) with the permitted use of the Premises by Tenant or (b) decrease, violate, or conflict (in any material respect) with any Tenant's rights hereunder, or (c) increase (in any material respect) Tenant's obligations hereunder. Tenant shall sign any of the aforementioned documents upon request of Landlord; provided, however, that such documents do not otherwise violate the terms of this Paragraph 42.

43. **Transportation Management**. Tenant agrees to cooperate with Landlord to the extent reasonably practicable to achieve the objectives of any applicable governmental authority, including the Trip Reduction and Transportation Demand Management Ordinance at Chapter 10.20 of the City’s municipal code ("TMO") and participation in a transportation program at a level of participation consistent with the number of employees of Tenant. In addition, Tenant shall fully comply with all present or future governmentally mandated programs intended to manage parking, transportation or traffic in and around the Building and/or Project, and in connection therewith, Tenant shall take responsible action for the transportation planning and management of all employees located at the Premises by working directly with Landlord, any governmental transportation management organization or any other transportation-related committees or entities.

44. ***Deleted***.

45. **Option to Extend**. Landlord hereby grants to Tenant two (2) options to extend the Lease Term (each, an "**Option**") for a period of five (5) years each (each, an "**Option Term**") commencing upon the expiration of the initial Lease Term, or the first Option Term, if applicable, upon each of the following conditions and terms:

(a)Tenant shall give to Landlord, and Landlord shall actually receive, on a date which is at least [***] ([***]) months and not more than [***] ([***]) months prior to the then scheduled expiration date of the Lease Term, a written notice of Tenant's exercise of the Option (the "**Option Notice**"), time being of the essence. If the Option Notice is not timely so given and received, the Option shall automatically expire.

(b)Tenant shall have no right to exercise the Option, notwithstanding any provision hereof to the contrary, (1) during the time commencing from the date Landlord gives to Tenant a notice of default pursuant to this Lease and continuing until the noncompliance alleged in said notice of default is cured, or (2) during the period of time commencing on the day after a monetary obligation to Landlord is due from Tenant and unpaid (without any necessity for notice thereof to Tenant) and continuing until the obligation is paid, or (3) if Tenant is in default of any of the terms, covenants or conditions of this Lease beyond applicable notice and cure periods.

(c)The period of time within which the Option may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Option because of the provisions of Paragraph 45(b) above.

(e)The Option is personal to the original Tenant named in this Lease (the "**Original Tenant**") and may be exercised only by the Original Tenant, or an assignee pursuant to a Permitted Transfer. The Option is not assignable separate and apart from this Lease, nor may the Option be separated from this Lease in any manner, either by reservation or otherwise.

(f)All of the terms and conditions of this Lease except where specifically modified by this Paragraph 45 or as otherwise stated to be applicable only to the initial Lease Term shall apply during any extended Lease Term.

(g)The initial monthly Base Rent payable during the Option Term shall be equal to the greater of (i) 100% of the then-current fair market rental value for the Premises, based on the Permitted Use herein, not including value attributable to improvements made by Tenant, at Tenant’s cost (i.e., above the value of the Tenant Improvement Allowance), or (ii) the monthly Base Rent payable during the last month of Lease Term immediately prior to applicable Option Term, and such Base Rent shall be subject to annual market escalations during the Option Term at the same escalation rate as for the initial Lease Term. The then-current fair market rental value for the Premises shall be determined as of the beginning of the Option Term, as follows:

(1)Promptly following receipt by Landlord of Tenant's Option Notice, Landlord and Tenant shall attempt to reach agreement on the Base Rent for the Option Term, which Base Rent shall be set in accordance with the criteria described above. If Landlord and Tenant are able to agree on the Base Rent for the Option Term, Landlord and Tenant shall immediately execute an amendment to this Lease stating the Base Rent for the Option Term.

(2)If the parties are unable to agree on the Base Rent for the Option Term within [***] ([***]) days following Landlord's receipt of the Option Notice, then each party, at its cost and by giving notice to the other party, shall have [***] ([***]) days within which to appoint a licensed commercial real estate broker with at least [***] ([***]) years’ experience in the in the market area in which the Premises are located, to determine and set the Base Rent for the Option Term at the then-current fair market rental value for the highest and best use of the Premises (but not less than the monthly Base Rent payable during the month immediately preceding the Option Term) for a term equal to the Option Term. If a party does not appoint a broker within such [***] ([***]) day period, the single broker appointed shall be the sole broker and shall set the Base Rent for the Option Term. If two brokers are appointed by the parties as stated in this paragraph, they shall meet promptly and attempt to set the Base Rent for the Option Term. If they are unable to agree within [***] ([***]) days after the second broker has been appointed, they shall attempt to select a third broker meeting the qualifications stated in this paragraph within [***] ([***]) days after the last day the two brokers are given to set the Base Rent for the Option Term. If they are unable to agree on the third broker, either of the parties to this Lease, by giving [***] ([***]) days’ notice to the other party, may apply to the presiding judge of the court of the county in which the Premises are located, for the selection of a third broker who meets the qualifications stated in this paragraph. Each of the parties shall bear the cost of its own broker and one-half (1/2) of the cost of appointing the third broker and of paying the third broker's fee. The third broker, however selected, shall be a person who has not previously acted in any capacity for either party.

(3) Within [***] ([***]) days after the selection of the third broker, the three brokers shall simultaneously exchange determinations of the Fair Market Rent. If the lowest determination of Fair Market Rent is not less than [***] percent ([***]%) of the highest determination, then [***] and the result shall be the Fair Market Rent. If the lowest determination is less than [***] percent ([***]%) of the highest determination, then the Fair Market Rent shall be deemed [***].

(h)If the Base Rent for the Option Term has not been determined by the commencement date of the Option Term, then until such Base Rent is determined, Tenant shall pay Base Rent to Landlord at the rate in effect immediately preceding the Option Term, and if the actual Base Rent for the Option Term is determined to be higher, then within [***] ([***]) days after the determination of such higher Base Rent, Tenant shall pay to Landlord the difference for each month of the Option Term for which Base Rent has already become due.

46. **Back-up Generator**. Subject to compliance with Legal Requirements, Tenant may (until the earlier of the expiration or earlier termination of the Lease Term), at Tenant's sole cost and expense, subject to the provisions of this Lease, install [***] ([***]) or more back-up generators (collectively, the "**Generators**"), at locations within or outside the Premises to be mutually agreed upon by the parties (and pursuant to plans and specifications approved in advance by Landlord, which approval shall not be unreasonably withheld, including as to the make and model of the Generators) for Tenant’s exclusive use. The Generators, and Tenant's rights with respect thereto, shall be subject to the additional following terms and conditions:

(a) Tenant shall pay Landlord, within [***] ([***]) days after demand, all actual out-of-pocket costs and expenses reasonably incurred by Landlord for any architectural, engineering, supervisory in connection with the Generators, including, without limitation, Landlord's review of the plans and specifications for the Generators; provided, however, if the Generators are approved and installed as part of the initial Tenant Improvements (as described in Exhibit C), then Tenant shall pay the project management fee referenced in the Work Letter attached hereto as Exhibit C, but shall not additionally be required to reimburse Landlord costs under this Section 46. All costs and expenses associated with the Generators, including, without limitation, all costs and expenses relating to soundproofing, screening, compliance with all Legal Requirements, rules, regulations and ordinances, safety, protection of property, installation, noise reduction, environmental monitoring and remediation, maintenance, repairs, replacements and removal, in each case to the extent reasonably necessary, shall be paid for by Tenant, promptly upon demand, at Tenant's sole cost and expense; without limiting the other terms of this Lease, Landlord may require that Tenant implement, at Tenant's sole cost and expense, any or all of the foregoing items set forth in this sentence (i.e., soundproofing, screening, etc.) as Landlord reasonably deems appropriate. Tenant shall deliver to Landlord full and complete plans and specifications with respect to the Generators, which shall be subject to the prior written approval of Landlord, such approval not to be unreasonably withheld, conditioned or delayed. Landlord's review of such plans and specifications shall be for its own benefit only, and Landlord shall have no liability to Tenant in connection with such review. Tenant shall ensure that the Generators comply at all times with Landlord's commercially reasonable rules and regulations that Tenant has received written notice of, and with all Legal Requirements, in all respects. Tenant shall ensure that the presence and use of the Generators does not unreasonably disturb or unreasonably interfere with any adjacent properties (or their owners or occupants) and does not create a nuisance or unreasonably interfere with any other tenants of the Premises (if any) or Landlord's activities in the Premises. Except as otherwise set forth herein, the Generators (and each element thereof) shall be considered a "Tenant-Made Alteration" under this Lease (and shall accordingly be subject to all of the terms of Paragraph 12 of this Lease, except that Tenant shall be required to remove the Generators on or before the expiration or earlier termination of the Lease Term, and Tenant, at its sole expense, shall repair any and all damage caused by such removal on or before the expiration or earlier termination of the Lease Term). Without limiting the foregoing, Landlord shall have the right, at any time in the case of emergency and upon reasonable prior notice and affording Tenant an opportunity to have a representative present at other times, to have access to the Generators, and may take whatever reasonable steps Landlord deems advisable to protect the Premises and Landlord's interest therein in connection therewith.

(b) Tenant agrees to have its commercial general public liability insurance insure against all Claims related to the Generators in the amounts and in accordance with the terms set forth in this Lease.

(c) Tenant's indemnification of Landlord and the Landlord Indemnities pursuant to Paragraph 18(a) above shall apply fully with respect to any and all Claims arising out of or in connection with the Generator, and Tenant shall repair all damage to the Premises and the Building contained therein arising in connection with the

Generator. Tenant's indemnification obligation pursuant to this paragraph shall survive the expiration or earlier termination of this Lease. Additionally, except to the extent resulting from Landlord’s negligence or willful misconduct but subject to the waiver of subrogation set forth above, Landlord shall have no liability whatsoever in connection with the Generators, and Tenant shall look to its insurance in connection with any claims or losses suffered in connection with the Generators. The presence and use of the Generators shall otherwise be subject to all of Tenant's obligations, liabilities and restrictions set forth in this Lease.

(d) Tenant, at Tenant's sole cost and expense, will, at all times in connection with the installation, use, operation and maintenance of the Generators, comply with all Legal Requirements, Landlord's commercially reasonable rules and regulations, and ordinances and matters of record affecting the installation, use, operation and maintenance of the Generators, including, without limitation, applicable building and fire codes. Tenant, at Tenant's sole cost and expense, shall be obligated to secure and obtain and provide Landlord with copies of all required permits, approvals and licenses for or with respect to the installation or operation of the Generators prior to the commencement of any installation activities hereunder, and Tenant shall be obligated to keep in full force and effect and renew, as applicable, all required permits, approvals and licenses required hereunder.

(remainder of page left intentionally blank)

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the date first set forth above.

LANDLORD:

PACIFIC COMMONS OWNER, LP,
a Delaware limited partnership

By:[***]

By:_____
Timur Tecimer, Authorized Signatory

TENANT:

SANA BIOTECHNOLOGY, INC.,
a Delaware corporation

By:_____
Name:_____
Title:_____

ADDENDUM 1

RULES AND REGULATIONS

[***]

EXHIBIT A

PREMISES

[***]

EXHIBIT A-1

PROJECT

[***]

EXHIBIT B

BASE BUILDING SPECIFICATIONS

[***]

EXHIBIT C

TENANT WORK LETTER

This Tenant Work Letter shall set forth the terms and conditions relating to the construction of initial tenant improvements to Premises.

SECTION 1

BASE BUILDING

Landlord has caused the Building to be constructed in substantial accordance with the specifications attached hereto as Exhibit B (the "**Base Building Specifications**"). Landlord shall deliver the Premises and "Base Building", as that term is defined below, to Tenant, and Tenant shall accept the Premises and Base Building from Landlord in their then existing "as-is" condition, subject to the specific terms and condition contained in the Lease The "Base Building" shall consist of those portions of the Premises which were in existence prior to the construction of the Tenant Improvements in the Premises.

SECTION 2

TENANT IMPROVEMENTS

2.1 Tenant Improvement Allowance. Tenant shall be entitled to a one-time tenant improvement allowance ("**Tenant Improvement Allowance**") in the amount of One Million Six Hundred Thirty-One Thousand Nine Hundred Thirty and No/100 Dollars ($1,631,930.00) for the cost relating to the initial design and the actual cost of constructing certain interior improvements which are permanently affixed to the Premises and approved in advance by Landlord ("**Tenant Improvements**"). Notwithstanding anything to the contrary contained in this Tenant Work Letter, in no event shall Landlord be obligated to make disbursements pursuant to this Tenant Work Letter in a total amount which exceeds the Tenant Improvement Allowance, and in no event shall Tenant be entitled to any portion of the Tenant Improvement Allowance not requested by Tenant (in accordance with the terms and conditions of this Work Letter) on or prior to the date that is [***] ([***]) months following the Commencement Date.

2.2 Disbursement of the Tenant Improvement Allowance.

2.2.1 Tenant Improvement Allowance Items. Except as otherwise set forth in this Tenant Work Letter, the Tenant Improvement Allowance shall be disbursed by Landlord only for the following items and costs (collectively, the "**Tenant Improvement Allowance Items**"):

2.2.1.1 The payment of plan check, permit and license fees relating to construction of the Tenant Improvements;

2.2.1.2 The cost of construction of the Tenant Improvements, including, without limitation, testing and inspection costs and trash removal costs, and contractors' fees and general conditions;

2.2.1.3 The cost of any changes in the Base Building when such changes are required by the Construction Drawings (including if such changes are due to the fact that such work is prepared on an unoccupied basis), such cost to include all direct architectural and/or engineering fees and expenses incurred in connection therewith;

2.2.1.4 The cost of any changes to the Construction Drawings or Tenant Improvements required by applicable building codes (collectively, the "**Code**");

2.2.1.5 Sales and use taxes and Title 24 fees;

2.2.1.6Payment to Landlord of a construction management and supervision fee equal to $[***], which shall be compensation for Landlord's services relating to the coordination, monitoring and supervision of the construction of the Tenant Improvements;

2.2.1.7Costs for the payment of the fees of the Architect and the Engineers (as such terms are defined in Section 3.1 of this Tenant Work Letter), and Landlord's third-party consultants and engineers; and

2.2.1.8All other costs to be expended by Tenant and approved by Landlord in connection with the construction of the Tenant Improvements.

2.2.2 Disbursement of Improvement Allowance. Landlord shall make one disbursement of the Improvement Allowance for Improvement Allowance Items for the benefit of Tenant and shall authorize the release of monies for the benefit of Tenant as follows.

2.2.2.1 Disbursement. Subject to the provisions of this Work Letter, a check for the Improvement Allowance (or so much thereof as Tenant is entitled to) payable to Tenant shall be delivered by Landlord to Tenant following the substantial completion of construction of the Premises and Tenant's opening for business in the Premises, provided that (i) Tenant delivers to Landlord invoices from all of "Tenant's Agents," as that term is defined in Section 4.1.2 of this Tenant Work Letter, for labor rendered and materials delivered to the Premises in excess of [***] ($[***]) per Tenant Agent, (ii) Tenant delivers to Landlord properly executed mechanics lien releases in form and substance acceptable to Landlord and otherwise in compliance with California Civil Code Section 8136 or Section 8138, (iii) Architect delivers to Landlord a certificate, in a form reasonably acceptable to Landlord, certifying that the construction of the Improvements in the Premises has been substantially completed in accordance with the Construction Drawings, (v) Tenant delivers to Landlord a "close-out package" in both paper and electronic forms (including, as-built drawings, and final record CADD files for the associated plans, warranties and guarantees from all contractors, subcontractors and material suppliers providing labor or materials in excess of $[***]), (vi) Tenant delivers to Landlord a certificate of occupancy for the Premises (Landlord to cooperate with same if required), and (vii) Tenant has opened for business in the Premises.

2.2.2.2 Other Terms. Landlord shall only be obligated to make a disbursement from the Tenant Improvement Allowance to the extent costs are incurred by Tenant for Improvement Allowance Items.

SECTION 3

CONSTRUCTION DRAWINGS

3.1 Selection of Architect/Construction Drawings. Tenant shall retain CRB (the "**Architect**") to prepare the Construction Drawings. Tenant shall retain the engineering consultants designated by Landlord (the "**Engineers**") to prepare all plans and engineering working drawings relating to the structural, mechanical, electrical, plumbing, HVAC, life-safety, and sprinkler work in the Premises, which work is not part of the Base Building. The plans and drawings to be prepared by Architect and the Engineers hereunder shall be known collectively as the "**Construction Drawings**". All Construction Drawings shall comply with the drawing format and specifications acceptable to Landlord. Tenant and Architect shall verify, in the field, the dimensions and conditions as shown on the relevant portions of the base building plans, and Tenant and Architect shall be solely responsible for the same, and Landlord shall have no responsibility in connection therewith. Landlord's review of the Construction Drawings as set forth in this Section 3, shall be for its sole purpose and shall not imply Landlord's review of the same, or obligate Landlord to review the same, for quality, design, Code compliance or other like matters. Accordingly, notwithstanding that any Construction Drawings are reviewed by Landlord or its space planner, architect, engineers and consultants, and notwithstanding any advice or assistance which may be rendered to Tenant by Landlord or Landlord's space planner, architect, engineers, and consultants, Landlord shall have no liability whatsoever in connection therewith and shall not be responsible for any omissions or errors contained in the Construction Drawings, and Tenant's waiver and indemnity set forth in the Lease shall specifically apply to the Construction Drawings.

3.2 Approved Working Drawings. Landlord shall approve (or disapprove) the working drawings prepared by Architect within [***] ([***]) business days after Landlord receives the final Construction Drawings (as so approved by Landlord, the "**Approved Working Drawings**"). If Landlord disapproves (which disapproval shall be in writing and shall specify in reasonable detail the basis of such disapproval) of the Construction Drawings, Tenant shall revise such Construction Drawings within [***] ([***]) Business Days after receipt of Landlord's disapproval

and resubmit the revised Construction Drawings back to Landlord for Landlord's review. Thereafter, within [***] ([***]) Business Days following receipt of same, Landlord will either approve or disapprove the Construction Drawings. This process shall be repeated until the Construction Drawings are ultimately approved by Landlord such that they become Approved Working Drawings. Tenant shall submit the Approved Working Drawings to all applicable governmental agencies and diligently pursue its receipt of all applicable building permits and approvals. Tenant hereby agrees that neither Landlord nor Landlord's consultants shall be responsible for obtaining any building permit or certificate of occupancy for the Tenant Improvements and that obtaining the same shall be Tenant's responsibility; provided, however, that Landlord shall cooperate with Tenant in executing permit applications and performing other ministerial acts reasonably necessary to enable Tenant to obtain any such permit or certificate of occupancy. No changes, modifications or alterations in the Approved Working Drawings may be made without the prior written consent of Landlord, which consent may not be unreasonably withheld.

SECTION 4

CONSTRUCTION OF THE TENANT IMPROVEMENTS

4.1 Tenant's Selection of Contractors.

4.1.1 The Contractor. A general contractor (the "**Contractor**") shall be retained by Tenant to construct the Tenant Improvements and Tenant shall contract directly with such Contractor. Landlord shall file a Notice of Non-Responsibility regarding payments under Tenant's contract with the Contractor. Such Contractor shall be approved by Landlord, in its reasonable discretion. Landlord hereby pre-approves any of the following parties as the Contractor: Dome, XL Construction, DPR and Novo Construction.

4.1.2 Tenant's Agents. All subcontractors, laborers, materialmen, and suppliers used by Tenant (such subcontractors, laborers, materialmen, and suppliers, and the Contractor to be known collectively as "**Tenant's Agents**") must be approved in writing by Landlord, which approval shall not be unreasonably withheld or delayed. If Landlord does not approve any of Tenant's proposed subcontractors, laborers, materialmen or suppliers, Tenant shall submit other proposed subcontractors, laborers, materialmen or suppliers for Landlord's written approval.

4.2 Construction of the Tenant Improvements.

4.2.1 Construction Contract; Cost Budget. Prior to Tenant's execution of the construction contract and general conditions with the Contractor (the "**Contract**"), upon request by Landlord, Tenant shall submit the Contract to Landlord for its approval with regard to proper insurance and licensing requirements and any other areas which may adversely affect Landlord's interest in the Building, and which approval shall not be unreasonably withheld or delayed by more than [***] ([***]) business days after Landlord's receipt of the Contract. Prior to the commencement of the construction of the Tenant Improvements, and after Tenant has accepted all bids for the Tenant Improvements, Tenant shall provide Landlord with a detailed breakdown, by trade, of the final costs to be incurred or which have been incurred in connection with the design and construction of the Tenant Improvements to be performed by or at the direction of Tenant or the Contractor, which costs form a basis for the amount of the Contract (the "**Final Costs**"). Prior to the commencement of construction of the Tenant Improvements, and after written request of Landlord, Tenant shall supply Landlord with such bank account information as is appropriate to demonstrate that Tenant has cash or liquid assets sufficient to pay for the anticipated Final Costs of the Tenant Improvements. Tenant shall be responsible to pay Contractor the difference between the amount of the Final Costs (including increased costs of design and construction) and the amount of the Tenant Improvement Allowance.

4.2.2 Tenant's Agents.

4.2.2.1 Landlord's General Conditions for Tenant's Agents and Tenant Improvement Work. Tenant's and Tenant's Agent's construction of the Tenant Improvements shall comply with the following: (i) the Tenant Improvements shall be constructed in strict accordance with the Approved Working Drawings; (ii) Tenant's Agents shall submit schedules of all work relating to the Tenant's Improvements to Contractor and Contractor shall,

within [***] ([***]) business days of receipt thereof, inform Tenant's Agents of any changes which are necessary thereto, and Tenant's Agents shall adhere to such corrected schedule; and (iii) Tenant shall abide by all rules made by Landlord's project manager with respect to the use of freight elevators and loading docks, storage of materials, coordination of work with the contractors at the Project, and any other matters in connection with this Tenant Work Letter, including, without limitation, the construction of the Tenant Improvements.

4.2.2.2Indemnity. Tenant's indemnity of Landlord as set forth in the Lease shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to any act or omission of Tenant or Tenant's Agents, or anyone directly or indirectly employed by any of them, or in connection with Tenant's non-payment of any amount arising out of the Tenant Improvements and/or Tenant's disapproval of all or any portion of any request for payment. Such indemnity by Tenant, as set forth in the Lease, shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to Landlord's performance of any ministerial acts reasonably necessary (i) to permit Tenant to complete the Tenant Improvements, and (ii) to enable Tenant to obtain any permit or certificate of occupancy for the Premises.

4.2.2.3Requirements of Tenant's Agents. Each of Tenant's Agents shall guarantee to Tenant and for the benefit of Landlord that the portion of the Tenant Improvements for which it is responsible shall be free from any defects in workmanship and materials for a period of not less than one (1) year from the date of completion thereof. Each of Tenant's Agents shall be responsible for the replacement or repair, without additional charge, of all work done or furnished in accordance with its contract that shall become defective within [***] ([***]) year after the completion of the work performed by such contractor or subcontractors. The correction of such work shall include, without additional charge, all additional expenses and damages incurred in connection with such removal or replacement of all or any part of the Tenant Improvements, and/or the Project and/or common areas that may be damaged or disturbed thereby. All such warranties or guarantees as to materials or workmanship of or with respect to the Tenant Improvements shall be contained in the Contract or subcontract and shall be written such that such guarantees or warranties shall inure to the benefit of both Landlord and Tenant, as their respective interests may appear, and can be directly enforced by either. Tenant covenants to give to Landlord any assignment or other assurances which may be necessary to effect such right of direct enforcement.

4.2.2.4Lien-Free Basis. The Contractor and Tenant's Agents shall perform all work on a lien-free basis. If a lien is filed or recorded against the Project due to, or in any way associated with, the construction of the Tenant Improvements, Tenant agrees to have such lien released of record (in a manner and form approved by Landlord) within [***] ([***]) days of Landlord's notice to Tenant regarding same. If Tenant fails to cause the release of such lien within such [***] ([***]) day period to Landlord's satisfaction, Landlord may cause the removal of such lien, and Tenant agrees to repay Landlord for all costs and expenses incurred by Landlord to release the lien (including, but not limited to, the payment of the amount stated in the lien, any filing, processing, recording and attorneys' fees) within [***] ([***]) days of Landlord's request therefor, and such amount shall be considered additional rent due under the Lease. If Tenant fails to pay Landlord as aforesaid, such failure shall be deemed an uncured noticed material default under the Lease, and Landlord may pursue any remedy provided for under the Lease, at law or in equity.

4.2.2.5Insurance Requirements

4.2.2.5.1 General Coverages. All of Tenant's Agents shall carry worker's compensation insurance covering all of their respective employees, and shall also carry public liability insurance, including property damage, all with limits, in form and with companies as are required to be carried by Tenant as set forth in the Lease.

4.2.2.5.2 Special Coverages. Tenant or the Contractor shall carry "Builder's All Risk" insurance in an amount approved by Landlord covering the construction of the Tenant Improvements, and such other insurance as Landlord may require, it being understood and agreed that the Tenant Improvements shall be insured by Tenant pursuant to the Lease immediately upon completion thereof. Such insurance shall be in amounts and shall include such extended coverage endorsements as may be reasonably required by Landlord including, but not limited to, the requirement that all of Tenant's Agents shall carry excess liability and Products and Completed Operating Coverage insurance, each in amounts not less than $[***] for each incident, and $[***] in aggregate, and in form and with companies as are required to be carried by Tenant as set forth in the Lease.

4.2.2.5.3 General Terms. Certificates for all insurance carried pursuant to this Section 4.2.2.5 shall be delivered to Landlord before the commencement of construction of the Tenant Improvements and before the Contractor's equipment is moved onto the site. All such policies of insurance must contain a provision that the company writing said policy will give Landlord [***] ([***]) days prior written notice of any cancellation or lapse of the effective date or any reduction in the amounts of such insurance. In the event that the Tenant Improvements are damaged by any cause during the course of the construction thereof, Tenant shall immediately repair the same at Tenant's sole cost and expense. Tenant's Agents shall maintain all of the foregoing insurance coverage in force until the Tenant Improvements are fully completed and accepted by Landlord, except for any Products and Completed Operation Coverage insurance required by Landlord, which is to be maintained for [***] ([***]) years following completion of the work and acceptance by Landlord and Tenant. All policies carried under this Section 4.2.2.5 shall insure Landlord and Tenant, as their interests may appear, as well as the Contractor and Tenant's Agents. All insurance, except Workers' Compensation, maintained by Tenant's Agents shall preclude subrogation claims by the insurer against anyone insured thereunder. Such insurance shall provide that it is primary insurance as respects the owner and that any other insurance maintained by owner is excess and noncontributing with the insurance required hereunder. The requirements for the foregoing insurance shall not derogate from the provisions for indemnification of Landlord by Tenant under Section 4.2.2.2 of this Tenant Work Letter.

4.2.3 Governmental Compliance. The Tenant Improvements shall comply in all respects with the following: (i) the Code and other state, federal, city or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person; and (ii) applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters) and the National Electrical Code.

4.2.4 Inspection by Landlord. Landlord shall have the right to inspect the Tenant Improvements at all times, provided however, that Landlord's failure to inspect the Tenant Improvements shall in no event constitute a waiver of any of Landlord's rights hereunder nor shall Landlord's inspection of the Tenant Improvements constitute Landlord's approval of the same. Should Landlord disapprove any portion of the Tenant Improvements, Landlord shall notify Tenant in writing of such disapproval and shall specify the items disapproved. Any defects or deviations in, and/or disapproval by Landlord of, the Tenant Improvements shall be rectified by Tenant at no expense to Landlord; provided however, that in the event Landlord determines that a defect or deviation exists or disapproves of any matter in connection with any portion of the Tenant Improvements and such defect, deviation or matter might adversely affect the mechanical, electrical, plumbing, heating, ventilating and air conditioning or life-safety systems of the Building, the structure or exterior appearance of the Building or any other tenant's use of the Project, Landlord may, take such action as Landlord deems reasonably necessary, at Tenant's expense and without incurring any liability on Landlord's part, to correct any such defect, deviation and/or matter, including, without limitation, causing the cessation of performance of the construction of the Tenant Improvements until such time as the defect, deviation and/or matter is corrected to Landlord's satisfaction.

4.2.5 Meetings. Commencing upon the execution of this Lease, Tenant and Landlord shall hold meetings as required at a reasonable time, with the Architect and the Contractor regarding the progress of the preparation of Construction Drawings and the construction of the Tenant Improvements, which meetings shall be held at a location designated by the parties, and Landlord and/or its agents shall receive prior notice of, and shall have the right to attend, all such meetings, and, upon Landlord's request, certain of Tenant's Agents shall attend such meetings.

4.3 Notice of Completion; Copy of "As Built" Plans. Within [***] ([***]) days after completion of construction of the Tenant Improvements, Tenant shall cause a Notice of Completion to be recorded in the office of the recorder of the county in which the Premises is located, and shall furnish a copy thereof to Landlord upon such recordation. If Tenant fails to do so, Landlord may execute and file the same on behalf of Tenant as Tenant's agent for such purpose, at Tenant's sole cost and expense. At the conclusion of construction, (i) Tenant shall cause the Architect and Contractor (A) to update the Approved Working Drawings as necessary to reflect all changes made to the Approved Working Drawings during the course of construction, (B) to certify to the best of their knowledge that the "record-set" of as-built drawings are true and correct, which certification shall survive the expiration or termination of the Lease, and (C) to deliver to Landlord two (2) sets of copies of such as-built drawings within [***] ([***]) days following issuance of a certificate of occupancy for the Premises, and (ii) Tenant shall deliver to Landlord a copy of all warranties, guaranties, and operating manuals and information relating to the improvements, equipment, and systems in the Premises.

SECTION 5

MISCELLANEOUS

5.1 Tenant's Representative. Tenant has designated Stefan Shipman as its sole representative with respect to the matters set forth in this Tenant Work Letter, who shall have full authority and responsibility to act on behalf of the Tenant as required in this Tenant Work Letter.

5.2 Landlord's Representative. Landlord has designated Timur Tecimer as its sole representative with respect to the matters set forth in this Tenant Work Letter, who, until further notice to Tenant, shall have full authority and responsibility to act on behalf of the Landlord as required in this Tenant Work Letter.

5.3 Time of the Essence in This Tenant Work Letter. Time is of the essence with respect to the performance by Tenant of every provision of this Tenant Work Letter. Unless otherwise indicated, all references herein to a "number of days" shall mean and refer to calendar days. If any item requiring approval is timely disapproved by Landlord, the procedure for preparation of the document and approval thereof shall be repeated until the document is approved by Landlord.

5.4 Tenant's Lease Default. Notwithstanding any provision to the contrary contained in the Lease, if an event of default as described in the Lease or this Tenant Work Letter has occurred at any time, then (i) in addition to all other rights and remedies granted to Landlord pursuant to the Lease, Landlord shall have the right to withhold payment of all or any portion of the Tenant Improvement Allowance and/or Landlord may cause Contractor to cease the construction (in which case, Tenant shall be responsible for any delay in the substantial completion caused by such work stoppage), and (ii) all other obligations of Landlord under the terms of this Tenant Work Letter shall be forgiven until such time as such default is cured pursuant to the terms of the Lease (in which case, Tenant shall be responsible for any delay in the substantial completion caused by such inaction by Landlord).

5.5 Additional Services. If the construction of the Tenant Improvements shall require that additional services or facilities (including, but not limited to, hoisting, cleanup or other cleaning services, trash removal, field supervision, or ordering of materials) be provided by Landlord, then Tenant shall pay Landlord for such items at Landlord's actual cost or at a reasonable charge if the item involves time of Landlord's personnel only.

5.6 Construction Defects. Landlord shall have no responsibility for the Tenant Improvements and Tenant will remedy, at Tenant's own expense, and be responsible for any and all defects in the Tenant Improvements that may appear during or after the completion thereof whether the same shall affect the Tenant Improvements in particular or any parts of the Premises in general. Tenant shall indemnify, hold harmless and reimburse Landlord for any costs or expenses incurred by Landlord by reason of any defect in any portion of the Tenant Improvements constructed by Tenant or Tenant's contractor or subcontractors, or by reason of inadequate cleanup following completion of the Tenant Improvements.

5.7 Coordination of Labor. All of Tenant's contractors, subcontractors, employees, servants and agents must work in harmony with and shall not interfere with any labor employed by Landlord, or Landlord's contractors or by any other tenant or its contractors with respect to any portion of the Project.

5.8 Approval of Plans. Landlord will not check Tenant drawings for building code compliance. Approval of the Construction Drawings by Landlord is not a representation that the drawings are in compliance with the requirements of governing authorities, and it shall be Tenant's responsibility to meet and comply with all federal, state, and local code requirements. Approval of the Construction Drawings does not constitute assumption of responsibility by Landlord or its architect for their accuracy, sufficiency or efficiency, and Tenant shall be solely responsible for such matters.

5.9 Books and Records. At its option, Landlord, at any time within [***] ([***]) years after final disbursement of the Tenant Improvement Allowance to Tenant, and upon at least [***] ([***]) days prior written notice to Tenant, may cause an audit to be made of Tenant's books and records relating to Tenant's expenditures in connection with the construction of the Tenant Improvements. Tenant shall maintain complete and accurate books and

records in accordance with generally accepted accounting principles of these expenditures for at least [***] ([***]) years. Tenant shall make available to Landlord's auditor at the Premises within [***] ([***]) business days following Landlord's notice requiring the audit, all books and records maintained by Tenant pertaining to the construction and completion of the Tenant Improvements. In addition to all other remedies which Landlord may have pursuant to the Lease, Landlord may recover from Tenant the reasonable cost of its audit if the audit discloses that Tenant falsely reported to Landlord expenditures which were not in fact made or falsely reported a material amount of any expenditure or the aggregate expenditures.

EXHIBIT D

HAZARDOUS MATERIALS DISCLOSURE CERTIFICATE

[***]

EXHIBIT E

ADDITIONAL USE PROVISIONS - LABORATORY USE

[***]

EXHIBIT F

CONTRACTOR RULES AND REGULATIONS

[***]

EXHIBIT G

FORM OF LETTER OF CREDIT

[***]

Exhibit 31.1

CERTIFICATION 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

I, Steven D. Harr, M.D., certify that:

1. I have reviewed this quarterly report on Form 10-Q of Sana Biotechnology, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) 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

   (d) 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 4, 2021

By: /s/ Steven D. Harr, M.D.
Steven D. Harr, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION 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

I, Nathan Hardy, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Sana Biotechnology, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) 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

   (d) 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 4, 2021

By: /s/ Nathan Hardy
Nathan Hardy
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Sana Biotechnology, Inc. (the "Company") on Form 10-Q for the period ending June 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: August 4, 2021

By: /s/ Steven D. Harr, M.D.
Steven D. Harr, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Sana Biotechnology, Inc. (the "Company") on Form 10-Q for the period ending June 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: August 4, 2021

By: /s/ Nathan Hardy
Nathan Hardy
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)