UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended March 31, 2021

OR

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

For the transition period from_____ to _____

Commission file number 001-36548

ATARA BIOTHERAPEUTICS, INC.

(Exact name of Registrant as specified in its Charter)

Delaware	**46-0920988**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
611 Gateway Blvd., Suite 900 South San Francisco, CA	**94080**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (650) 278-8930

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, par value $0.0001 per share	**ATRA**	**The Nasdaq Stock Market LLC**

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a 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 ☒

The number of outstanding shares of the Registrant's Common Stock as of April 26, 2021 was84,076,737 shares.

ATARA BIOTHERAPEUTICS, INC.

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NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. Such forward-looking statements, which represent our intent, belief or current expectations, involve risks and uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. In some cases you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "predict," "plan," "expect" or the negative or plural of these words or similar expressions. The forward-looking statements include, but are not limited to, statements about:

- our expectations regarding the timing of initiating clinical studies, opening client sites, enrolling clinical studies and reporting results of clinical studies for our programs, including in light of the COVID-19 pandemic;
- the likelihood and timing of regulatory submissions or related approvals for our product candidates, including the initiation, completion and expectations about the timing of approvals for our BLA for tab-cel® for patients with EBV+ PTLD;
- the potential indications for our product candidates, if approved for commercial use;
- the potential market opportunities for commercializing our product candidates;
- our Research, Development and License Agreement with Bayer, including potential milestone and royalty payments under the agreement;
- our expectations regarding the potential market size and the size of the patient populations for our product candidates, if approved for commercial use;
- estimates of our expenses, capital requirements and need for additional financing;
- our expectation regarding the length of time that our existing capital resources will be sufficient to enable us to fund our planned operations;
- our ability to commercialize our product candidates, if approved for commercial use;
- our ability to develop, acquire and advance product candidates into, and successfully complete, clinical studies;
- the initiation, timing, progress and results of future preclinical studies and clinical studies and our research and development programs;
- the scope of protection we are able to obtain and maintain for the intellectual property rights covering our product candidates;
- our financial performance;
- developments and projections relating to our competitors and our industry;
- our ability to manufacture our product candidates for our clinical studies, or if approved, for commercial sale;
- the impact of COVID-19 to our business and operations, as well as the businesses and operations of third parties on which we rely;
- our ability to sell or manufacture approved products at commercially reasonable values; and
- timing and costs related to qualification of our manufacturing plant for commercial production.

These statements are only current predictions and are subject to known and unknown risks, uncertainties, including, without limitation, risks and uncertainties associated with the costly and time-consuming pharmaceutical product development process and the uncertainty of clinical success; the COVID-19 pandemic, which may significantly impact (i) our business, research, clinical development plans and operations, including our operations in South San Francisco and Southern California and at our clinical trial sites, as well as the business or operations of our third-party manufacturer, contract research organizations or other third parties with whom we conduct business, (ii) our ability to access capital, and (iii) the value of our common stock; the sufficiency of our cash resources and need for additional capital, and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in this report in greater detail under the heading "1A. Risk Factors" and elsewhere in this report. You should not rely upon forward-looking statements as predictions of future events. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risks and uncertainties.

In this Quarterly Report on Form 10-Q, unless the context requires otherwise, "Atara," "Atara Biotherapeutics," "Company," "we," "our," and "us" means Atara Biotherapeutics, Inc. and, where appropriate, its subsidiaries.

Summary Risk Factors

Our business is subject to numerous risks and uncertainties that may have a material adverse effect on our business, financial condition or results of operations. These risks are more fully described below. These risks include, among others:

- we have incurred substantial losses since our inception and anticipate that we will continue to incur substantial and increasing losses for the foreseeable future;
- we currently have no approved products and thus have no revenues from commercialization of any products and may never generate product revenues or achieve profitability;
- we are early in our development efforts, and we will need to successfully complete preclinical and clinical testing of our product candidates before we can seek regulatory approval and potentially generate commercial sales;
- we will require substantial additional financing to achieve our goals, which may not be available to us on acceptable terms, or at all;
- our future success depends on our ability to retain our executive officers and to attract, retain and motivate qualified personnel;
- the results of preclinical studies or earlier clinical studies are not necessarily predictive of future results, and product candidates we advance into clinical studies may not have favorable results in later clinical studies or receive regulatory approval;
- clinical drug development, both in the U.S. and international jurisdictions, involves a lengthy and expensive process with an uncertain outcome and even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties;
- our T-cell immunotherapy product candidates and our next-generation CAR T programs represent new therapeutic approaches that could result in heightened regulatory scrutiny and delays in or our inability to achieve regulatory approval, commercialization or payor coverage of our product candidates;
- the market opportunities for our product candidates may be limited to those patients who are ineligible for or have failed prior treatments and may be small;
- we may not be able to obtain or maintain orphan drug exclusivity for our product candidates;
- the COVID-19 pandemic continues to impact our business and operations and could materially and adversely affect our business and operations in the future, as well as the businesses and operations of third parties on which we rely;
- our success depends upon our ability to obtain and maintain sufficient intellectual property protection for our product candidates, and we may not be able to protect our intellectual property rights throughout the world;
- our principal stockholders own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval; and
- we may not be able to obtain and maintain the relationships with third parties that are necessary to develop, commercialize and manufacture some or all of our product candidates.

ATARA BIOTHERAPEUTICS, INC.
Condensed Consolidated Balance Sheets
(Unaudited)
(In thousands, except per share amounts)

	March 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 151,097	$ 200,404
Short-term investments	284,064	300,255
Restricted cash - short-term	194	194
Accounts receivable	9,610	1,250
Prepaid expenses and other current assets	19,342	21,170
Total current assets	464,307	523,273
Property and equipment, net	51,471	50,517
Operating lease assets	11,930	12,303
Restricted cash - long-term	1,200	1,200
Other assets	729	827
Total assets	$ 529,637	$ 588,120
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 17,355	$ 7,118
Accrued compensation	12,786	20,458
Accrued research and development expenses	10,655	15,813
Deferred revenue	35,497	33,455
Other current liabilities	7,901	6,057
Total current liabilities	84,194	82,901
Deferred revenue - long-term	31,811	27,795
Operating lease liabilities - long-term	12,569	13,041
Other long-term liabilities	2,026	2,044
Total liabilities	130,600	125,781
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Common stock—$0.0001 par value, 500,000 shares authorized as of March 31, 2021 and December 31, 2020; 84,075 and 83,372 shares issued and outstanding as of March 31, 2021 and December 31, 2020, respectively	8	8
Additional paid-in capital	1,601,784	1,586,616
Accumulated other comprehensive income	161	296
Accumulated deficit	(1,202,916)	(1,124,581)
Total stockholders' equity	399,037	462,339
Total liabilities and stockholders' equity	$ 529,637	$ 588,120

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(In thousands, except per share amounts)

	Three Months Ended March 31,	
	2021	2020
License and collaboration revenue	$ 3,552	$ —
Operating expenses:		
Research and development	64,059	57,659
General and administrative	17,738	17,038
Total operating expenses	81,797	74,697
Loss from operations	(78,245)	(74,697)
Interest and other (expense) income, net	(90)	1,188
Net loss	$ (78,335)	$ (73,509)
Other comprehensive loss:		
Unrealized loss on available-for-sale securities	(135)	(16)
Comprehensive loss	$ (78,470)	$ (73,525)
Net loss per common share:		
Basic and diluted net loss per common share	$ (0.86)	$ (1.20)
Weighted-average shares outstanding used to calculate basic and diluted net loss per common share	91,456	61,208

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
Condensed Consolidated Statements of Changes in Stockholders' Equity
(Unaudited)
(In thousands)

For the Three Months Ended March 31, 2021	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
Balance as of December 31, 2020	83,372	$ 8	$ 1,586,616	$ 296	$ (1,124,581)	$ 462,339
Issuance of common stock through ATM facilities, net of commissions and offering costs of $139	146	—	2,382	—	—	2,382
RSU settlements, net of shares withheld	449	—	(1,231)	—	—	(1,231)
Issuance of common stock pursuant to employee stock awards	108	—	1,749	—	—	1,749
Stock-based compensation expense	—	—	12,268	—	—	12,268
Net loss	—	—	—	—	(78,335)	(78,335)
Unrealized loss on available-for-sale securities	—	—	—	(135)	—	(135)
Balance as of March 31, 2021	84,075	$ 8	$ 1,601,784	$ 161	$ (1,202,916)	$ 399,037

For the Three Months Ended March 31, 2020	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
Balance as of December 31, 2019	56,806	$ 6	$ 1,108,516	$ 220	$ (817,961)	$ 290,781
Issuance of common stock through ATM facilities, net of commissions and offering costs of $704	1,528	—	22,987	—	—	22,987
Exercise of pre-funded warrants	57	—	—	—	—	—
RSU settlements, net of shares withheld	455	—	(1,395)	—	—	(1,395)
Issuance of common stock pursuant to employee stock awards	94	—	1,330	—	—	1,330
Stock-based compensation expense	—	—	12,644	—	—	12,644
Net loss	—	—	—	—	(73,509)	(73,509)
Unrealized loss on available-for-sale securities	—	—	—	(16)	—	(16)
Balance as of March 31, 2020	58,940	$ 6	$ 1,144,082	$ 204	$ (891,470)	$ 252,822

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(In thousands)

	Three Months Ended March 31,	
	2021	**2020**
Operating activities		
Net loss	$ (78,335)	$ (73,509)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	12,268	12,644
Depreciation and amortization expense	2,222	1,949
Amortization of investment premiums	360	42
Non-cash operating lease expense	373	364
Asset retirement obligation accretion expense	21	19
Changes in operating assets and liabilities:		
Accounts receivable	(8,360)	—
Prepaid expenses and other current assets	1,828	(1,888)
Other assets	38	(209)
Accounts payable	9,555	(590)
Accrued compensation	(7,672)	(5,030)
Accrued research and development expenses	(5,158)	(514)
Other current liabilities	1,510	(169)
Deferred revenue	6,058	—
Operating lease liabilities	(406)	(153)
Net cash used in operating activities	(65,698)	(67,044)
Investing activities		
Purchases of short-term investments	(94,055)	(56,851)
Proceeds from maturities and sales of short-term investments	109,751	97,157
Purchases of property and equipment	(2,197)	(1,333)
Net cash provided by investing activities	13,499	38,973
Financing activities		
Proceeds from issuance of common stock through ATM facilities, net	2,457	24,277
Proceeds from employee stock awards	1,749	1,330
Taxes paid related to net share settlement of restricted stock units	(1,231)	(1,395)
Principal payments on finance lease obligations	(66)	(90)
Other financing activities, net	(17)	(165)
Net cash provided by financing activities	2,892	23,957
Decrease in cash, cash equivalents and restricted cash	(49,307)	(4,114)
Cash, cash equivalents and restricted cash at beginning of period	201,798	75,711
Cash, cash equivalents and restricted cash at end of period	$ 152,491	$ 71,597
Non-cash investing and financing activities		
Property and equipment purchases included in accounts payable and other accrued liabilities	$ 1,245	$ 1,098
Accrued costs related to underwritten public offering	$ 176	$ —
Accrued costs related to ATM facilities	$ 75	$ 112
Finance lease assets obtained in exchange for lease obligations	$ —	$ 281
Supplemental cash flow disclosure		
Cash paid for interest	$ 10	$ 17
Cash paid for income taxes	$ 8	$ —

See accompanying notes.

1. Description of Business

Atara Biotherapeutics, Inc. ("Atara", "we", "our" or "the Company") was incorporated in August 2012 in Delaware. Atara is a pioneer in T-cell immunotherapy, leveraging its novel allogeneic EBV T-cell platform to develop transformative therapies for patients with serious diseases, including solid tumors, hematologiccancers and autoimmune disease.

We have several T-cell immunotherapies in clinical development and are progressing multiple next-generation allogeneic chimeric antigen receptor T-cell ("CAR T") programs. We have entered into a research, development and license agreement ("Bayer License Agreement") with Bayer AG ("Bayer") pursuant to which we granted to Bayer an exclusive, field-limited license under the applicable patents and know-how owned or controlled by us and our affiliates covering or related to ATA2271 and ATA3271. See Note 6 for further information.

We have licensed rights to T-cell product candidates from Memorial Sloan Kettering Cancer Center ("MSK"), rights related to our next-generation CAR T programs from MSK and from H. Lee Moffitt Cancer Center ("Moffitt"), and rights to know-how and technology from the Council of the Queensland Institute of Medical Research ("QIMR Berghofer"). See Note 7 for further information.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of Atara and its wholly owned subsidiaries and have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") and the requirements of the Securities and Exchange Commission ("SEC") for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. GAAP can be condensed or omitted. These condensed consolidated financial statements have been prepared on the same basis as the Company's annual consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020. In the opinion of management, the condensed consolidated financial statements reflect all adjustments, consisting only of normal recurring adjustments, which are necessary for a fair presentation of the Company's consolidated financial statements. The results of operations for any interim period are not necessarily indicative of the results to be expected for the full year or any other future period. The condensed consolidated balance sheet as of December 31, 2020 has been derived from audited consolidated financial statements at that date but does not include all of the information required by U.S. GAAP for complete consolidated financial statements.

Liquidity

We have incurred significant operating losses since inception and have relied primarily on public and private equity financings and receipts from license and collaboration agreements to fund our operations. As we continue to incur losses, our transition to profitability will depend on the successful development, approval and commercialization of product candidates and on the achievement of sufficient revenues to support our cost structure. We may never achieve profitability, and unless and until we do, we will need to continue to raise additional capital. We expect that existing cash, cash equivalents and short-term investments as of March 31, 2021 will be sufficient to fund our planned operations for at least the next twelve months from the date of issuance of these financial statements.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates, assumptions, and judgments that affect the amounts reported in the financial statements and accompanying notes. Significant estimates relied upon in preparing these financial statements include estimates related to revenue recognition, clinical study and other accruals, stock-based compensation expense and income taxes. Actual results could differ materially from those estimates.

Recent Accounting Pronouncements

We consider the applicability and impact of any Accounting Standards Update ("ASU") issued by the Financial Accounting Standards Board ("FASB"). Based on our assessment, the ASUs were determined to be either not applicable or are expected to have minimal impact on our condensed consolidated financial statements.

3. Net Loss per Common Share

Basic net loss per common share is calculated by dividing net loss by the weighted-average number of shares of common stock and pre-funded warrants outstanding during the period, without consideration of common share equivalents. Diluted net loss per common share is computed by dividing net loss by the weighted-average number of shares of common stock, pre-funded warrants and common share equivalents outstanding for the period. The pre-funded warrants are included in the computation of basic and diluted net loss per common share as the exercise price is negligible and the pre-funded warrants are fully vested and exercisable. Common share equivalents are only included in the calculation of diluted net loss per common share when their effect is dilutive.

Potential dilutive securities have been excluded from the computation of diluted net loss per share, as the effect is antidilutive, and consist of unvested restricted stock units ("RSUs"), including unvested performance-based RSUs for which established performance criteria have been achieved as of the end of the respective periods; vested and unvested options to purchase common stock; and shares to be issued under our employee stock purchase plan ("ESPP"). Therefore, the denominator used to calculate both basic and diluted net loss per common share is the same in all periods presented.

The following table represents the potential common shares issuable pursuant to outstanding securities as of the related period end dates that were excluded from the computation of diluted net loss per common share, as their inclusion would have an antidilutive effect:

	As of March 31,	
	2021	2020
Unvested RSUs	4,900,248	3,630,713
Vested and unvested options	9,030,928	8,096,471
ESPP share purchase rights	164,954	178,397
Total	14,096,130	11,905,581

4. Financial Instruments

Our financial assets are measured at fair valueon a recurring basis using the following hierarchy to prioritize valuation inputs, in accordance with applicable U.S. GAAP:

Level 1:Quoted prices in active markets for identical assets or liabilities that we have the ability to access

Level 2:Observable market-based inputs or unobservable inputs that are corroborated by market data such as quoted prices, interest rates and yield curves

Level 3:Inputs that are unobservable data points that are not corroborated by market data

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels of certain securities within the fair value hierarchy. We recognize transfers into and out of levels within the fair value hierarchy in the period in which the actual event or change in circumstances that caused the transfer occurs. There have been no transfers between Level 1, Level 2 and Level 3 in any periods presented.

Financial assets and liabilities are considered Level 2 when their fair values are determined using inputs that are observable in the market or can be derived principally from or corroborated by observable market data such as pricing for similar securities, recently executed transactions, cash flow models with yield curves, and benchmark securities. In addition, Level 2 financial instruments are valued using comparisons to like-kind financial instruments and models that use readily observable market data as their basis. U.S. Treasury, government agency and corporate debt obligations, commercial paper and asset-backed securities are valued primarily using market prices of comparable securities, bid/ask quotes, interest rate yields and prepayment spreads and are included in Level 2.

Financial assets and liabilities are considered Level 3 when their fair values are determined using pricing models, discounted cash flow methodologies, or similar techniques, and at least one significant model assumption or input is unobservable. We have no Level 3 financial assets or liabilities.

The following tables summarize the estimated fair value and related valuation input hierarchy of our available-for-sale securities as of each period end:

As of March 31, 2021:	Input Level	Total Amortized Cost	Total Unrealized Gain	Total Unrealized Loss	Total Estimated Fair Value
			(in thousands)		
Money market funds	Level 1	$ 138,100	$ —	$ —	$ 138,100
U.S. Treasury obligations	Level 2	176,010	72	—	176,082
Government agency obligations	Level 2	25,218	15	(6)	25,227
Corporate debt obligations	Level 2	61,259	100	(20)	61,339
Commercial paper	Level 2	22,242	—	—	22,242
Asset-backed securities	Level 2	10,847	8	(8)	10,847
Total available-for-sale securities		433,676	195	(34)	433,837
Less: amounts classified as cash equivalents		(149,773)	—	—	(149,773)
Amounts classified as short-term investments		$ 283,903	$ 195	$ (34)	$ 284,064

As of December 31, 2020:	Input Level	Total Amortized Cost	Total Unrealized Gain	Total Unrealized Loss	Total Estimated Fair Value
			(in thousands)		
Money market funds	Level 1	$ 168,343	$ —	$ —	$ 168,343
U.S. Treasury obligations	Level 2	230,239	113	(6)	230,346
Government agency obligations	Level 2	22,537	22	(3)	22,556
Corporate debt obligations	Level 2	50,080	166	(1)	50,245
Commercial paper	Level 2	17,990	—	—	17,990
Asset-backed securities	Level 2	9,860	10	(5)	9,865
Total available-for-sale securities		499,049	311	(15)	499,345
Less: amounts classified as cash equivalents		(199,090)	—	—	(199,090)
Amounts classified as short-term investments		$ 299,959	$ 311	$ (15)	$ 300,255

The amortized cost and fair value of our available-for-sale securities by contractual maturity were as follows:

	As of March 31, 2021		As of December 31, 2020	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
	(in thousands)		(in thousands)	
Maturing within one year	$ 369,665	$ 369,805	$ 434,828	$ 435,023
Maturing in one to five years	64,011	64,032	64,221	64,322
Total available-for-sale securities	$ 433,676	$ 433,837	$ 499,049	$ 499,345

As of March 31, 2021, no significant facts or circumstances were present to indicate a deterioration in the creditworthiness of the issuers of the available-for-sale securities we hold, and the Company has no requirement or intention to sell these securities before maturity or recovery of their amortized cost basis. We considered the current and expected future economic and market conditions surrounding the COVID-19 pandemic and determined that our investments were not significantly impacted. For all securities with a fair value less than its amortized cost basis, we determined the decline in fair value below amortized cost basis to be immaterial and non-credit related, and therefore no allowance for losses has been recorded. During the three months ended March 31, 2021 and 2020, we did not recognize any impairment losses on our investments.

We have elected the practical expedient to exclude the applicable accrued interest from both the fair value and the amortized cost basis of our available-for-sale securities for purposes of identifying and measuring an impairment. We present accrued interest receivable related to our available-for-sale securities in prepaid expenses and other current assets, separate from short-term investments on our condensed consolidated balance sheet. As of March 31, 2021 and December 31, 2020, accrued interest receivable was $0.7 million. We have not written off any accrued interest receivables for the three months ended March 31, 2021 and 2020.

In addition, restricted cash collateralized by money market funds is a financial asset measured at fair value and is a Level 1 financial instrument under the fair value hierarchy. As of March 31, 2021 and December 31, 2020, restricted cash was $1.4 million.

The following table provides a reconciliation of cash, cash equivalents and restricted cash within the condensed consolidated balance sheets that sum to the total of the same such amounts in the condensed consolidated statement of cash flows:

	March 31, 2021	December 31, 2020
	(in thousands)	
Cash and cash equivalents	$ 151,097	$ 200,404
Restricted cash - short term	194	194
Restricted cash - long term	1,200	1,200
Total cash, cash equivalents and restricted cash	$ 152,491	$ 201,798

5. Property and Equipment

Property and equipment consisted of the following as of each period end:

	March 31, 2021	December 31, 2020
	(in thousands)	
Leasehold improvements	$ 50,132	$ 50,132
Lab equipment	10,125	8,033
Machinery and equipment	5,085	5,023
Computer equipment and software	4,060	4,060
Furniture and fixtures	2,096	2,066
Construction in progress	1,811	879
Property and equipment, gross	73,309	70,193
Less: accumulated depreciation and amortization	(21,838)	(19,676)
Property and equipment, net	$ 51,471	$ 50,517

Depreciation and amortization expense was $2.2 million and $1.9 million for the three months ended March 31, 2021 and 2020, respectively.

6. License and Collaboration Agreements

Bayer

Research, Development and License Agreement

In December 2020, we entered into the Bayer License Agreement to develop mesothelin-directed CAR T-cell therapies for the treatment of solid tumors, pursuant to which we granted to Bayer an exclusive, field-limited license under the applicable patents and know-how owned or controlled by us and our affiliates covering or related to ATA2271 and ATA3271 (the “Licensed Products”).

Under the terms of the Bayer License Agreement, we will be responsible at our cost for all mutually agreed preclinical and clinical activities for ATA2271 through the first in human Phase 1 clinical study in collaboration with MSK, following which Bayer will be responsible for the further development of ATA2271 at its cost. Bayer will be responsible for the development of ATA3271 at Bayer’s cost, except for certain mutually agreed preclinical, translational, manufacturing and supply chain activities to be performed by us relating to ATA3271. Bayer will also be solely responsible for commercializing the Licensed Products at its cost.

In December 2020, we received an upfront cash payment of $45.0 million from Bayer for the exclusive license grant, net of applicable withholding taxes, which we believe are recoverable, and an additional $15.0 million reimbursement payment for certain research and process development activities to be performed by us. We are also entitled to receive (i) up to an additional $5.0 million for additional, specified translational activities under the Bayer License Agreement, of which we have invoiced and received $1.3 million, and (ii) an aggregate of up to $610.0 million in milestone payments upon achieving certain development, regulatory and commercial milestones relating to the Licensed Products. In addition, we are eligible to receive from Bayer tiered royalties at percentages up to low double digits on worldwide net product sales of the Licensed Products on a country-by-country and product-by-product basis until the later of 12 years after the first commercial sale in such country or the expiration of specified patent rights in such country, subject to certain reductions and aggregate minimum floors.

Bayer and we have formed a joint steering committee ("JSC") that will provide oversight, decision making and implementation guidance regarding the collaboration activities covered under the agreement.

We assessed this arrangement in accordance with ASC 606 and concluded that the promises in the Bayer License Agreement represent transactions with a customer. We concluded that the Bayer License Agreement contains the following promises: (i) a development and commercialization license; (ii) performance of early-stage research and development ("R&D") services, including technology transfer services; (iii) JSC participation; and (iv) chemistry, manufacturing and control ("CMC") services. In accordance with ASC 606, we determined that the license, early-stage R&D and CMC services were not distinct from each other, as the license, early-stage R&D and CMC services are highly interdependent upon one another. Participation on the JSC to oversee the research and development activities are combined into the single performance obligation as these activities are highly interdependent with the other R&D and CMC services. Accordingly, we determined that these promises should be combined into a single performance obligation.

The transaction price at inception consisted of a $45.0 million upfront payment for the license, $15.0 million for certain research and process development activities and the $5.0 million for additional specified translational activities, and this amount was allocated to the single performance obligation. The potential development and commercial milestone payments that we are eligible to receive were excluded from the transaction price, as all milestone amounts were fully constrained based on the probability of achievement. None of the future royalty and sales-based milestone payments were included in the transaction price, as the potential payments represent sales-based consideration. We will reevaluate the transaction price at the end of each reporting period and as uncertain events are resolved or other changes in circumstances occur, and, if necessary, adjust our estimate of the transaction price.

Technology Transfer Agreement

In March 2021, we entered into a Technology Transfer Agreement with Bayer (the "Bayer Tech Transfer Agreement"), which was contemplated as part of the Bayer License Agreement, to transfer to Bayer the ATA3271 manufacturing process being developed as part of the CMC services in the Bayer License Agreement. Upon entering into the agreement, we invoiced Bayer 20 percent, or $3.1 million, of the total fee of $15.3 million under the Bayer Tech Transfer Agreement, which we have recorded in accounts receivable and believe to be recoverable. The remainder of the fee will be billed as follows: (i) 40 percent on January 1, 2022, (ii) 20 percent on January 1, 2023 and (iii) 20 percent upon the technology transfer completion.

We assessed this arrangement in accordance with ASC 606 and concluded that the promises in the Bayer Tech Transfer Agreement represent transactions with a customer. We concluded that the Bayer Tech Transfer Agreement should be combined with the Bayer License Agreement and accounted for as a modification of that agreement and that the Bayer Tech Transfer Agreement contains the following promises: (i) technology transfer services and (ii) supply of materials required for the technology transfer services. In accordance with ASC 606, we determined that the technology transfer services and supply of materials required for the technology transfer services were not distinct from each other, as they are highly interdependent upon one another. In addition, we concluded that the technology transfer services and supply of materials required for the technology transfer services were highly interdependent with the license, early-stage R&D and CMC services identified in the Bayer License Agreement. Accordingly, we determined that these promises should be combined into a single performance obligation.

Under the Bayer Tech Transfer Agreement, in order to evaluate the appropriate transaction price, we determined that the $5.3 million fee constituted the entire consideration to be included in the transaction price, and this amount was allocated to the single performance obligation as identified under the Bayer License Agreement.

We utilize a cost-based input method to recognize revenue based on the amount of actual costs incurred relative to the total budgeted costs expected to be incurred for the combined performance obligation.

Manufacturing and Supply Agreement

In March 2021, we entered into a Manufacturing and Supply Agreement with Bayer (the "Bayer Manufacturing Agreement"), which was contemplated as part of the Bayer License Agreement, to manufacture Phase 1 and 2 allogeneic mesothelin-directed CAR T-cell therapies for Bayer to use in clinical trials at a price based on our costs plus a margin, which is consistent with our standalone selling price. Under the Bayer Manufacturing Agreement, we will also provide storage and distribution services to Bayer at a price that is consistent with our standalone selling price for these services.

Upon entering into the Bayer Manufacturing Agreement, Bayer submitted, and we approved, a binding purchase order for manufacturing services and storage services. Any fees for the manufacturing services will be invoiced as follows: (i) 50 percent upon written acceptance by us of the binding purchase order, and (ii) the remainder upon delivery of the certification of analysis of such lots to Bayer. Storage and distribution services are billed monthly as those services are provided to Bayer.

In March 2021, we invoiced Bayer 50 percent of the total estimated supply price of $13.1 million for manufacturing services under the initial purchase order for the supply of six lots, or $6.6 million, which we have recorded in accounts receivable and believe to be recoverable. The remainder of the supply price will be billed upon the release of the lots ordered by Bayer.

We assessed this arrangement in accordance with ASC 606 and concluded that the promises in the manufacturing and supply agreement represent transactions with a customer. We concluded that the Bayer Manufacturing Agreement contains the following promises: (i) manufacturing services; (ii) storage services provided on a month-to-month basis, and (iii) distribution services. In accordance with ASC 606, we determined that the manufacturing services for the initial purchase order of six lots, that are expected to be provided prior to completion of the technology transfer, are not distinct as they are highly interdependent on the manufacturing process being developed and transferred under the Bayer License Agreement and the Tech Transfer Agreement. Accordingly, we determined that these promises should be combined into a single performance obligation. We also determined that each of the other services were distinct and separate performance obligations. We determined that the initial binding order for the manufacture and supply of six lots should be combined with the Bayer License Agreement and accounted for as a modification of that agreement along with the Bayer Tech Transfer Agreement. We also concluded that a binding purchase order from Bayer, together with the Bayer Manufacturing Agreement, form the contract for manufacturing services and storage services and a shipping order from Bayer forms the contract for distribution services. We also determined that the storage services provided on a month-to-month basis and distribution services are distinct and separate performance obligations. All the performance obligations identified above are priced at their standalone selling price.

Under the Bayer Manufacturing Agreement, in order to evaluate the appropriate transaction price, we determined that the $13.1 million fee constituted the entire consideration to be included in the transaction price, and this amount was allocated to the single performance obligation as identified under the Bayer License Agreement. Revenue for the manufacturing services for the initial six lots will be recognized based on the amount of actual costs incurred relative to the total budgeted costs expected to be incurred for the combined performance obligation. Revenue for the storage services will be recognized over time as those services are provided. Revenue for the distribution services will be recognized at a point in time when the product is delivered to a clinical site designated by Bayer.

We utilize a cost-based input method to recognize revenue based on the amount of actual costs incurred relative to the total budgeted costs expected to be incurred for the combined performance obligation. For the three months ended March 31, 2021, we recognized $3.6 million of revenue under the Bayer License Agreement, Bayer Tech Transfer Agreement and Bayer Manufacturing Agreement. We did not recognize any revenue in 2020 under Bayer License Agreement. Deferred revenue related to the Bayer License Agreement, Bayer Tech Transfer Agreement and Bayer Manufacturing Agreement aggregated to $67.3 million and $61.3 million as of March 31, 2021 and December 31, 2020, respectively. The $67.3 million of deferred revenue as of March 31, 2021, of which $35.5 million is included in current liabilities and $31.8 million is included in long-term liabilities, is expected to be recognized over approximately the next three years. No development or sales-based milestone payments have been received through March 31, 2021.

7. Commitments and Contingencies

MSK License and Collaboration Agreements

In June 2015, we entered into an exclusive license agreement with MSK for three clinical stage T-cell therapies. We are required to make payments to MSK based on achievement of specified regulatory and sales-related milestones, as well as mid-single-digit percentage tiered royalty payments based on future sales of products resulting from the development of the licensed product candidates, if any. In addition, under certain circumstances, we are required to make certain minimum annual royalty payments to MSK, which are creditable against earned royalties owed for the same annual period. We are also required to pay a low double-digit percentage of any consideration we receive for sublicensing the licensed rights. The license agreement expires on a product-by-product and country-by-country basis on the latest of: (i) expiration of the last licensed patent rights related to each licensed product, (ii) expiration of any market exclusivity period granted by law with respect to each licensed product, and (iii) a specified number of years after the first commercial sale of the licensed product in each country. Upon expiration of the license agreement, Atara will retain non-exclusive rights to the licensed products.

In May 2018 and December 2018, we licensed additional technology from MSK. We are obligated to make additional milestone payments based on achievement of specified development, regulatory and sales-related milestones, as well as mid-single-digit percentage tiered royalty payments based on future sales of products resulting from the development of the licensed product candidates, if any.

In March 2021, we amended and restated our license agreement with MSK to: (i) terminate our license to certain rights related to WT1 and cytomegalovirus ("CMV"); and (ii) license additional know-how rights not otherwise covered by our existing agreements.

QIMR Berghofer License and Collaboration Agreements

In October 2015, we entered into an exclusive license agreement and a research and development collaboration agreement with QIMR Berghofer. Under the terms of the license agreement, we obtained an exclusive, worldwide license to develop and commercialize allogeneic T-cell therapy programs utilizing technology and know-how developed by QIMR Berghofer. In September 2016, the exclusive license agreement and research and development collaboration agreement were amended and restated. Under the amended and restated agreements, we obtained an exclusive, worldwide license to develop and commercialize additional T-cell programs, as well as the option to license additional technology that we exercised in June 2018. We further amended and restated our license agreement and research and development collaboration agreements with QIMR Berghofer in August 2019 to terminate our license to certain rights related to CMV. In addition, we further amended and restated our license agreement and research and development collaboration agreement with QIMR Berghofer in August 2020 to terminate our license to certain rights related to BK polyomavirus and JC polyomavirus. Our current license agreement also provides for various milestone and royalty payments to QIMR Berghofer based on future product sales, if any. Under the terms of our current research and development collaboration agreement, we are also required to reimburse the cost of agreed-upon development activities related to programs developed under the collaboration. These payments are expensed on a straight-line basis over the related development periods. The agreement also provides for various milestone payments to QIMR Berghofer based on achievement of certain developmental and regulatory milestones.

Other License and Collaboration Agreements

From time to time, we have entered into other license and collaboration agreements with other parties. For example, we licensed additional rights related to our MSK-partnered next-generation CAR T programs from MSK in May 2018 and we licensed rights related to our next-generation CAR T programs from Moffitt Cancer Center in August 2018, and we agreed to collaborate through sponsored research in connection with each of these licenses. We also licensed rights related to our MSK-partnered next-generation CAR T programs from the National Institutes of Health in December 2018.

Milestones and royalties under each of the above agreements are contingent upon future events and will be recorded as expense when it is probable that the milestones will be achieved or royalties are due. As of March 31, 2021 and December 31, 2020, there were no material outstanding obligations for milestones and royalties under our license and collaboration agreements.

Cognate Manufacturing Agreements

In December 2019, we entered into a Commercial Manufacturing Services Agreement (the "Cognate Manufacturing Agreement") with Cognate BioServices, Inc. ("Cognate"). Pursuant to the Cognate Manufacturing Agreement, Cognate provides manufacturing services for certain of our product candidates. The initial term of the Cognate Manufacturing Agreement is from January 1, 2020 until December 31, 2021 and is renewable with Cognate's approval for an additional one-year period. We may terminate the Cognate Manufacturing Agreement for convenience on six months' written notice to Cognate, or immediately if Cognate is unable to perform the services under the Cognate Manufacturing Agreement or fails to obtain or maintain certain necessary approvals. In March 2021, Charles River Laboratories Inc. ("CRL") acquired Cognate.

Other Research, Development and Manufacturing Agreements

We may enter into other contracts in the normal course of business with clinical research organizations for clinical trials, with contract manufacturing organizations for clinical supplies, and with other vendors for pre-clinical studies, supplies and other services for our operating purposes. These contracts generally provide for termination on notice. As of March 31, 2021 and December 31, 2020, there were no amounts accrued related to contract termination charges or minimum purchase volumes not being met.

Indemnification Agreements

In the normal course of business, we enter into contracts and agreements that contain a variety of representations and warranties and provide for indemnification for certain liabilities. The exposure under these agreements is unknown because it involves claims that may be made against us in the future but have not yet been made. To date, we have not paid any claims or been required to defend any action related to our indemnification obligations. However, we may record charges in the future as a result of these indemnification obligations. We also have indemnification obligations to our directors and executive officers for specified events or occurrences, subject to some limits, while they are serving at our request in such capacities. There have been no claims to date and we believe the fair value of these indemnification agreements to be minimal. Accordingly, we did not record liabilities for these agreements as of March 31, 2021 and December 31, 2020.

Contingencies

From time to time, we may be involved in legal proceedings, as well as demands, claims and threatened litigation, which arise in the normal course of our business or otherwise. The ultimate outcome of any litigation is uncertain and unfavorable outcomes could have a negative impact on our results of operations and financial condition. Regardless of outcome, litigation can have an adverse impact on us because of the defense costs, diversion of management resources and other factors. We are not currently involved in any material legal proceedings.

8. Stockholders' Equity

Our authorized capital stock consists of 520,000,000 shares, all with a par value of $0.0001 per share, of which 500,000,000 shares are designated as common stock and 20,000,000 shares are designated as preferred stock. There were no shares of preferred stock outstanding as of March 31, 2021 and December 31, 2020.

Equity Offerings

As part of our July 2019 underwritten public offering, we issued and sold pre-funded warrants to purchase 2,945,026 shares of common stock in an underwritten public offering pursuant to a shelf registration on Form S-3. Each pre-funded warrant entitles the holder to purchase one share of common stock at an exercise price of $0.0001 per share and expires seven years from the date of issuance. These warrants were recorded as a component of stockholders' equity within additional paid-in capital. Per the terms of the warrant agreement, a holder of the outstanding warrants is not entitled to exercise any portion of any pre-funded warrant if, upon exercise of the warrant, the holder's ownership (together with its affiliates) of our common stock or combined voting power of our securities beneficially owned by such holder (together with its affiliates) would exceed 9.99% after giving effect to the exercise ("Maximum Ownership Percentage"). Upon at least 61 days' prior notice to us by the holder, any holder may increase or decrease the Maximum Ownership Percentage to any other percentage not to exceed 19.99%. As of March 31, 2021, pre-funded warrants to purchase 2,888,526 shares of our common stock from the July 2019 underwritten public offering were outstanding.

In the second and fourth quarters of 2020, we issued and sold pre-funded warrants to purchase 2,866,961 and 2,040,816 shares of common stock, respectively, in underwritten public offerings pursuant to a shelf registration on Form S-3, with terms similar to those above. As of March 31, 2021, all of the pre-funded warrants issued and sold as part of the 2020 underwritten public offerings were outstanding.

ATM Facility

In February 2020, we entered into a sales agreement (the "2020 ATM Facility") with Cowen and Company, LLC ("Cowen"), which provides for the sale, in our sole discretion, of shares of our common stock having an aggregate offering price of up to $100.0 million through Cowen, as our sales agent. The issuance and sale of these shares by us pursuant to the 2020 ATM Facility are deemed "at the market" offerings as defined in Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"), and are registered under the Securities Act. We pay a commission of up to 3.0% of gross sales proceeds of any common stock sold under the 2020 ATM Facility.

During the three months ended March 31, 2021, we sold an aggregate of 145,630 shares of common stock under the 2020 ATM Facility, at an average price of $17.31 per share, for gross proceeds of $2.5 million and net proceeds of $2.4 million, after deducting commissions and other offering expenses payable by us. As of March 31, 2021, $77.1 million of common stock remained available to be sold under the 2020 ATM Facility, subject to certain conditions as specified in the sales agreements.

Equity Incentive Plans

Under the terms of the 2014 Equity Incentive Plan, as amended ("2014 EIP"), we may grant stock options, restricted stock awards ("RSAs") and RSUs to employees, directors, consultants and other service providers. RSUs generally vest over four years. In 2020, we granted performance-based awards to certain of our employees that provide for the issuance of common stock if specified Company performance criteria related to our clinical programs are achieved. The number of performance-based awards that ultimately vests depends upon if, when and which performance criteria are achieved, as well as the employee's continuous service, as defined in the 2014 EIP, through the date of vesting. The fair value of performance-based RSUs is determined as the closing stock price on the date of grant.

Stock options are granted at prices no less than 100% of the estimated fair value of the shares on the date of grant as determined by the board of directors, provided, however, that the exercise price of an option granted to a 10% shareholder cannot be less than 110% of the estimated fair value of the shares on the date of grant. Options granted generally vest over four years and expire in seven to ten years. As of March 31, 2021, a total of 17,170,258 shares of common stock were reserved for issuance under the 2014 EIP, of which 3,307,900 shares were available for future grant and 13,862,358 shares were subject to outstanding options and RSUs, including performance-based awards.

In February 2018, we adopted the 2018 Inducement Plan ("Inducement Plan"), under which we may grant options, stock appreciation rights, RSAs and RSUs to new employees. In September 2020, we amended the Inducement Plan to reserve an additional 1,500,000 shares of the Company's common stock for issuance under the Inducement Plan, as amended. As of March 31, 2021, 2,621,086 shares of common stock were reserved for issuance under the Inducement Plan, of which 1,638,411 shares were available for future grant and 982,675 shares were subject to outstanding options and RSUs.

Restricted Stock Units

The following is a summary of RSU activity under our 2014 EIP and Inducement Plan:

	RSUs	
	Shares	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2020	3,829,620	$ 15.91
Granted	2,645,345	$ 17.19
Forfeited	(170,491)	$ 15.33
Vested	(509,869)	$ 22.15
Unvested as of March 31, 2021	5,794,605	$ 15.96

As of March 31, 2021, there was $77.1 million of unrecognized stock-based compensation expense related to RSUs that is expected to be recognized over a weighted average period of 2.9 years. This excludes unrecognized stock-based compensation expense for performance-based RSUs that were deemed not probable of vesting in accordance with U.S GAAP.

Stock Options

The following is a summary of stock option activity under our 2014 EIP and Inducement Plan:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	7,851,886	$ 22.89	6.4	$ 26,834
Granted	1,475,153	17.23		
Exercised	(107,789)	16.23		
Forfeited or expired	(168,822)	31.46		
Outstanding as of March 31, 2021	9,050,428	$ 21.89	6.9	$ 7,595

Aggregate intrinsic value represents the difference between the closing stock price of our common stock on March 31, 2021 and the exercise price of outstanding, in-the-money options. As of March 31, 2021, there was $57.4 million of unrecognized stock-based compensation expense related to stock options that is expected to be recognized over a weighted average period of 2.8 years.

Reserved Shares

The following shares of common stock were reserved for future issuance under our equity incentive plans as of March 31, 2021:

	Total Shares Reserved
2014 Equity Incentive Plan	17,170,258
2018 Inducement Plan	2,621,086
2014 Employee Stock Purchase Plan	1,181,572
Total reserved shares of common stock	20,972,916

Stock-based Compensation Expense

Total stock-based compensation expense related to all employee and non-employee stock awards was as follows:

	Three Months Ended March 31,	
	2021	2020
	(in thousands)	
Research and development	$ 7,530	$ 7,650
General and administrative	4,738	4,994
Total stock-based compensation expense	$ 12,268	$ 12,644

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 condensed consolidated financial statements and related notes included elsewhere in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021. This discussion and other parts of this Quarterly Report contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, expectations and intentions. As a result of many factors, including those factors set forth in the "Risk Factors" section of this Quarterly Report, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

Atara Biotherapeutics is a pioneer in T-cell immunotherapy, leveraging its novel allogeneic Epstein-Barr virus (EBV) T-cell platform to develop transformative therapies for patients with serious diseases, including solid tumors, hematologiccancers and autoimmune disease. With our lead program in Phase 3 clinical development, we are the most advanced allogeneic T-cell immunotherapy company and intend to rapidly deliver off-the-shelf treatments to patients with high unmet medical need. Our platform leverages the unique biology of EBV T cells and has the capability to treat a wide range of EBV-driven diseases or other serious diseases through incorporation of engineered chimeric antigen receptors (CARs) or T-cell receptors (TCRs). Atara is applying this one platform to create a robust pipeline. Our strategic priorities are:

- ***Tab-cel®***: Atara's most advanced T-cell immunotherapy, tab-cel® (tabelecleucel), currently in Phase 3 development for patients with EBV-driven post-transplant lymphoproliferative disease (EBV+ PTLD) who have failed rituximab or rituximab plus chemotherapy, as well as other EBV-driven diseases;
- ***ATA188***: T-cell immunotherapy targeting EBV antigens believed to be important for the potential treatment of multiple sclerosis;
- ***CAR T Programs***:
    - ***ATA2271***: Autologous CAR T immunotherapy targeting solid tumors expressing the tumor antigen mesothelin, which is partnered with Bayer AG (Bayer);
    - ***ATA3271***: Allogeneic CAR T therapy targeting mesothelin, which is partnered with Bayer; and
    - ***ATA3219***: Allogeneic CAR T targeting CD19, being developed as a potential best-in-class product, based on a next generation 1XX co-stimulatory domain and the innate advantages of EBV T cells as the foundation for an allogeneic CAR T platform.

Our T-cell immunotherapy platform includes the capability to progress both allogeneic and autologous programs and is potentially applicable to a broad array of targets and diseases. Our off-the-shelf, allogeneic T-cell platform allows for rapid delivery of a T-cell immunotherapy product manufactured in advance of patient need and stored in inventory, with each manufactured lot of cells providing therapy for numerous potential patients. This differs from autologous treatments, in which each patient's own cells must be extracted, genetically modified outside the body and then delivered back to the patient, requiring a complex logistics network. For our allogeneic programs, we select the appropriate set of cells for use based on a patient's unique immune profile. In addition, our manufacturing facility has the flexibility to manufacture multiple T-cell and CAR T immunotherapies while integrating research and process science functions to enable increased collaboration for rapid product development. We are currently in the process of completing our facility's commercial production qualification activities for tab-cel® while building inventory according to our commercial product supply strategy.

In December 2020, we entered into a Research, Development and License Agreement with Bayer (the Bayer License Agreement) pursuant to which we granted to Bayer an exclusive, field-limited license under the applicable patents and know-how owned or controlled by us and our affiliates covering or related to ATA2271 and ATA3271. In March 2021, as contemplated by the Bayer License Agreement, we entered into (i) a Manufacturing and Supply Agreement (Bayer Manufacturing Agreement); (ii) a Pharmacovigilance Agreement; (iii) a Quality Agreement; and (iv) a Technology Transfer Agreement (Bayer Tech Transfer Agreement), in each case, with Bayer, to further advance our collaboration with Bayer.

We have also entered into research collaborations with leading academic institutions such as Memorial Sloan Kettering Cancer Center (MSK), the Council of the Queensland Institute of Medical Research (QIMR Berghofer) and H. Lee Moffitt Cancer Center and Research Institute (Moffitt) pursuant to which we acquired rights to novel and proprietary technologies and programs.

Pipeline

Tab-cel®

We continue to advance development of tab-cel® in a Phase 3 clinical trial for patients with EBV+ PTLD, which has received Breakthrough Therapy Designation (BTD) in the U.S. and PRIority MEdicines (PRIME) designation in the European Union (EU).

- We are in active discussions with the FDA and progressing toward alignment on the content of chemistry, manufacturing and controls (CMC) module 3, including methodologies to assess comparability between the product used in the pivotal ALLELE study and the intended commercial product. We are working toward completing a BLA submission in the third quarter of 2021 pending alignment with the FDA.
- A recent analysis shows that duration of response in the ALLELE study is maturing as anticipated with a larger number of responders followed for at least six months and a safety profile consistent with previously published data with no new safety signals.
- In January 2021, we presented transcriptional data for tab-cel® at the 2021 Transplantation & Cellular Therapy Meeting demonstrating consistency of the product's activation profile irrespective of donor and consistent enrichment of receptors targeting EBV-driven diseases.
- We have data at two medical congresses (presented at the Annual Meeting of the European Society for Blood and Marrow Transplantation in March 2021, and an abstract at the upcoming American Transplant Congress in June 2021) from a combined long-term overall survival (OS) analysis from three clinical studies of tab-cel® demonstrating that patients with EBV+ PTLD, following both HCT (hematopoietic cell transplantation) and SOT (solid organ transplant), that is relapsed or refractory to initial treatment, derived similar OS benefit greater than 80 percent at two years whether they achieved complete or partial response with tab-cel®.
- We expect to present data from the pivotal ALLELE study at an appropriate congress in the fourth quarter of 2021.
- We have submitted a letter of intent to the European Medicines Agency (EMA), starting the process for a submission of an EU marketing authorization application (MAA) for tab-cel® in patients with EBV+ PTLD in the fourth quarter of 2021. We anticipate an approval decision with respect to of the MAA in the second half of 2022.
- We are continuing our preparations and investing further in commercial readiness activities in anticipation of potential approval and commercialization of tab-cel® in the U.S in the first half of 2022. We are in discussions with potential partners for thecommercialization of tab-cel® in Europe.
- We continue to pursue development of tab-cel® in earlier lines of therapy, with an initial focus on immunodeficiency-associated lymphoproliferative diseases (IA-LPDs), given the commonality of their EBV-driven mechanism of disease in immunocompromised patients, high unmet medical need and positive clinical data to date with tab-cel®.
- We are actively opening sites in our Phase 2 multi-cohort study, which will evaluate both treatment-naïve and previously treated patients in six patient populations, including four within IA-LPDs and two in other EBV-driven diseases, in both the U.S. and EU. Data from this study is expected in 2023.
- Our phase 1b study of tab-cel® in combination with Merck's anti-PD1 (programmed death receptor-1) therapy, KEYTRUDA® (pembrolizumab), in patients with platinum-resistant or recurrent EBV-driven nasopharyngeal carcinoma (NPC) achieved its safety endpoints and stable diseases in some patients. We intend to generate additional translational data in NPC in 2021 for this patient population. We plan to share data from the NPC study at an appropriate forum in the future.

ATA188

We continue to progress our development of ATA188, an allogeneic T-cell immunotherapy targeting EBV antigens believed to be important for the potential treatment of multiple sclerosis (MS).

- We are currently progressing an open-label extension (OLE) of our open label, single arm, multi-center, multi-national Phase 1 study with allogeneic ATA188 for patients with progressive MS (PMS). Based on encouraging data from the study to date, all patients will be treated or re-treated with the Cohort 4 dose moving forward.
- In January 2021, we presented a poster at the 2021 Transplantation & Cellular Therapy Meeting an innovative testing solution that enables detection and quantification of non-engineered allogeneic T-cell therapies for use in ATA188 clinical development.

- We plan to present long-term two-year clinical data from the OLEand translation data from the Phase 1 study in the second half of 2021.
- We also continue to enroll patients in a randomized, double-blind, placebo-controlled trial (Phase 2 RCT) evaluating the efficacy and safety of ATA188 in patients with PMS.
- In the first quarter of 2021, we filed and received approval of a Clinical Trial Application for the Phase 2 RCT in Canada.
- We plan to conduct an interim analysis of the Phase 2 RCT in the first half of 2022 to assess efficacy and safety. Following the interim analysis, we expect to complete planned enrollment in the first half of 2022.

ATA2271/ATA3271

Our next-generation CAR T immunotherapy programs include autologous ATA2271 and allogeneic ATA3271 targeting mesothelin, which is a tumor antigen expressed on a number of solid tumors including mesothelioma, ovarian cancer, pancreatic cancer, non-small cell lung cancer and other tumors over-expressing mesothelin. Both programs were licensed to Bayer in December 2020, pursuant to an exclusive, field-limited license (the Bayer License Agreement).

- In March 2021, as contemplated by the Bayer License Agreement, we entered into (i) the Bayer Manufacturing Agreement; (ii) a Pharmacovigilance Agreement; (iii) a Quality Agreement; and (iv) the Bayer Tech Transfer Agreement, in each case, with Bayer, to further advance our collaboration with Bayer.
- In September 2020, MSK initiated an open-label, single-arm Phase 1 clinical study of ATA2271 for patients with advanced mesothelioma. MSK has completed enrollment of the first cohort of this study and we anticipate presentation of first clinical data from this study to be presented in the fourth quarter of 2021.
- We have also initiated IND-enabling studies for ATA3271, an off-the-shelf, allogeneic CAR T therapy targeting mesothelin using a PD-1 DNR and 1XX CAR co-stimulatory signaling domain through our EBV T-cell platform, and we expect to file the IND in the second or third quarter of 2022.

ATA3219

We are also developing ATA3219, an off-the-shelf, allogeneic CD19 CAR T immunotherapy targeting B-cell malignancies, as a potential best-in-class therapy without the need for TCR gene editing, using our next-generation 1XX CAR co-stimulatory domain and EBV T-cell platform.

- We have initiated IND-enabling studies and plan to submit an IND for ATA3219 for patients with B-cell malignancies in the fourth quarter of 2021 or first quarter of 2022.

Additional Programs and Platform Expansion Activities

In addition to the prioritized programs described above, we have a number of preclinical programs. We are collaborating with Moffitt to develop multi-targeted CAR T immunotherapies to adverse cell types that often become resistant to treatment, such as those targeting acute myeloid leukemia (AML) (ATA2321) and B-cell malignancies (ATA2431). We are also collaborating with QIMR Berghofer on the development of ATA368 for patients with human papillomavirus (HPV) associated cancers.

We believe our platform will have utility beyond the current set of targets to which it has been directed.We continue to evaluate additional product candidates, including those derived from collaborations with our partners. We also continue to evaluate opportunities to license or acquire additional product candidates or technologies to enhance our existing platform.

Manufacturing

In addition to our manufacturing facility in Thousand Oaks, California, we also work withCognate BioServices, Inc. (Cognate) pursuant to a Commercial Manufacturing Services Agreement (the Manufacturing Agreement) that we entered into in December 2019. Pursuant to the Manufacturing Agreement, Cognate provides manufacturing services for certain of our product candidates. The initial term of the Manufacturing Agreement runs until December 31, 2021 and is renewable with Cognate's approval for an additional one-year period. We may terminate the Manufacturing Agreement for convenience on six months' written notice to Cognate, or immediately if Cognate is unable to perform the services under the Manufacturing Agreement or fails to obtain or maintain certain necessary approvals. In March 2021, Charles River Laboratories Inc. (CRL) acquired Cognate.

COVID-19 Business Update

We continue to closely monitor the impact of the ongoing COVID-19 pandemic on our business and operations and have taken steps to ensure the health and safety of our employees, staff, clinical site staff and patients and to maintain business continuity. Based on guidance issued by federal, state and local authorities, we have temporarily transitioned most of our workforce to a remote, work-from-home model, while maintaining essential in-person manufacturing and laboratory functions in order to advance key research, development and manufacturing priorities. We implemented safety protocols and procedures to support our onsite workforce.

In addition to implementing measures to protect the health and safety of our workforce, our clinical study and operational teams are working closely with clinical sites to ensure the safety of site staff and patients as well as preserve data integrity and access to treatment as appropriate. Where needed, remote study visits, leveraged tele-medicine, home health care, and other methods have been established to ensure continuity of care for patients while preserving key endpoint data.

To date, the COVID-19 pandemic has not materially impacted our or our partners' clinical, research and development, regulatory and manufacturing operations or timelines. We have experienced, and may continue to experience, some transient delays in clinical study operations, as a result of the evolving impact of the ongoing COVID-19 pandemic. For example, due to the COVID-19 pandemic, in April 2020 we temporarily paused the screening and enrollment of patients in our RCT for ATA188. We were able to resume such activities and enrolled the first patient in the study in June 2020. Our Phase 2 multi-cohort study of tab-cel® has experienced some delays in clinical trial site initiation activities, but we do not believe this study has been significantly impacted. Our Phase 3 clinical trial of tab-cel® in patients with EBV+ PTLD has not been significantly impacted by the ongoing COVID-19 pandemic, and most sites are currently open for patient enrollment.

The full extent to which the COVID-19 pandemic may impact our business and operations is subject to future developments which are uncertain and difficult to predict. Further quarantines, shelter-in-place or similar restrictions and other actions taken or imposed by foreign, federal, state and local governments could adversely impact our or our partners' clinical, research and development, regulatory and manufacturing operations or timelines. We continue to monitor the impact of the COVID-19 pandemic on our business and operations and will seek to adjust our activities as appropriate. In addition, the pandemic could result in significant and prolonged disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect the financial resources available to us.

For additional information about risks and uncertainties related to the COVID-19 pandemic that may impact our business, financial condition and operations, see the section titled "Risk Factors" under Part II, Item 1A in this Quarterly Report on Form 10-Q.

Financial Overview

We have a limited operating history. Since our inception in 2012, we have devoted substantially all of our resources to identify, acquire and develop our product candidates, including conducting preclinical and clinical studies, acquiring or manufacturing materials for clinical studies, constructing our manufacturing facility and providing general and administrative support for these operations.

Our net losses were $78.3 million and $73.5 million for the three months ended March 31, 2021 and 2020, respectively. As of March 31, 2021, we had an accumulated deficit of $1.2 billion. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative expenses associated with our operations. As of March 31, 2021, our cash, cash equivalents and short-term investments totaled $435.2 million, which we intend to use to fund our operations.

Revenues

We have never generated revenues from the sale of products and have incurred losses since inception. We do not expect to receive any revenue from product sales unless and until we obtain regulatory approval for and commercialize one of our current or future product candidates. Our revenues to date are derived solely from agreements with Bayer related to upfront license fees, fees for research, process development and translational activities and technology transfer fees.

We expect that any revenue we generate from our Bayer License Agreement and any future collaboration and research and license partners will fluctuate from year to year as a result of the timing and number of milestones and other payments.

Research and Development Expenses

The largest component of our total operating expenses since inception has been our investment in research and development activities, including the preclinical and clinical development of our product candidates. Research and development expenses consist primarily of compensation and benefits for research and development employees, including stock-based compensation; expenses incurred under agreements with contract research organizations and investigative sites that conduct preclinical and clinical studies; the costs of acquiring and manufacturing clinical study materials and other supplies; payments under licensing and research and development agreements; other outside services and consulting costs; and facilities, information technology and overhead expenses. Research and development costs are expensed as incurred.

We plan to continue investment in the development of our product candidates. Our current planned research and development activities include the following:

- continuing to initiate sites and enroll patients in our Phase 3 clinical study oftab-cel® for the treatment of patients withEBV+ PTLD after HCT and SOT who have failed rituximab;
- process development, testing and manufacturing of drug supply to support clinical studies and IND-enabling studies;
- continuing development of ATA188 in progressive MS;
- continuing to develop product candidates based on our next-generation CAR T programs;
- continuing to develop our product candidates in additional indications, including tab-cel® for EBV+ cancers;
- continuing to develop other pre-clinical product candidates; and
- leveraging our relationships and experience to in-license or acquire additional product candidates or technologies.

In addition, we believe it is important to invest in the development of new product candidates to continue to build the value of our product candidate pipeline and our business. We plan to continue to advance our most promising early product candidates into preclinical development with the objective to advance these early-stage programs to human clinical studies over the next several years.

Our expenditures on current and future preclinical and clinical development programs are subject to numerous uncertainties in timing and cost to completion. The duration, costs, and timing of clinical studies and development of our product candidates will depend on a variety of factors, including:

- the availability of qualified drug supply for use in our ongoing Phase 3 or other clinical studies;
- the scope, rate of progress, and expenses of our ongoing clinical studies, potential additional clinical studies and other research and development activities;
- the potential review or reanalysis of our clinical study results;
- future clinical study results;
- uncertainties in clinical study enrollment rates or discontinuation rates of patients, including any potential impact of the COVID-19 pandemic;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- changing medical practice patterns related to the indications we are investigating;
- significant and changing government regulation;
- disruptions caused by man-made or natural disasters or public health pandemics or epidemics, including, for example, the COVID-19 pandemic; and
- the timing and receipt of any regulatory approvals, as well as potential post-market requirements.

The process of conducting the necessary clinical research to obtain approval from the FDA and other regulators is costly and time consuming and the successful development of our product candidates is highly uncertain. The risks and uncertainties associated with our research and development projects are discussed more fully in the section of this report titled “1A. Risk Factors.” As a result of these risks and uncertainties, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects, or if, when, or to what extent we will generate revenues from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates.

General and Administrative Expenses

General and administrative expenses consist primarily of compensation and benefits for legal, human resources, finance, commercial and other general and administrative employees, including stock-based compensation; professional services costs, including legal, patent, human resources, audit and accounting services; other outside services and consulting costs, including those related to pre-commercial activities; and information technology and facilities costs.

Interest and Other Income (Expense), net

Interest and other income (expense), net consists primarily of interest earned on our cash, cash equivalents and short-term investments and translation gains and losses on transactions denominated in foreign currencies.

Critical Accounting Policies and Significant Judgments and Estimates

There have been no significant changes to our critical accounting policies and significant judgments and estimates during the three months ended March 31, 2021 from those disclosed in our management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 1, 2021.

Results of Operations

Comparison of the Three Months Ended March 31, 2021 and 2020

Revenues

Revenue consisted of the following in the periods presented:

	Three Months Ended March 31,		Increase (Decrease)
	2021	2020	
	(in thousands)		
License and collaboration revenue	$ 3,552	$ —	$ 3,552

License and collaboration revenue for the three months ended March 31, 2021 consisted of revenue related to the recognition of upfront license fees, fees for research, process development and translational activities and technology transfer fees under the Bayer License Agreement and Bayer Tech Transfer Agreement. No revenue was recognized in 2020.

Research and development expenses

Research and development expenses consisted of the following costs, by program, in the periods presented:

	Three Months Ended March 31,		Increase (Decrease)
	2021	2020	
	(in thousands)		
Tab-cel® expenses	$ 11,953	$ 14,798	$ (2,845)
ATA188, CAR T and other program expenses	9,060	4,115	4,945
Employee and overhead expenses	43,046	38,746	4,300
Total research and development expenses	$ 64,059	$ 57,659	$ 6,400

Tab-cel® expenses were $12.0 million in the three months ended March 31, 2021, as compared to $14.8 million in the comparative 2020 period. The decrease in 2021 was primarily due to higher production activities in 2020 related to the build-up of our tab-cel® inventory.

ATA188, CAR T and other program expenses were $9.1 million in the three months ended March 31, 2021, as compared to $4.1 million in the comparative 2020 period. The increase was primarily related to milestone and license fees due to MSK and an increase in research and clinical trial costs to further advance ATA188 and our CAR T programs.

Employee and overhead expenses were $43.0 million in the three months ended March 31, 2021, as compared to $38.7 million in the comparative 2020 period. The increase was primarily due to higher compensation-related costs from increased headcount and higher facility-related costs in support of our continuing expansion of research and development activities. Relative to the 2020 comparative period, for the three months ended March 31, 2021, payroll and related costs increased by $2.8 million, facility-related costs increased by $1.2 million and outside services costs remained consistent.

Total research and development expenses for the three months ended March 31, 2021 and 2020 were not significantly impacted as a result of the COVID-19 pandemic.

General and administrative expenses

	Three Months Ended March 31,		Increase
	2021	2020	(Decrease)
	(in thousands)		
General and administrative expenses	$ 17,738	$ 17,038	$ 700

General and administrative expenses increased to $17.7 million in the three months ended March 31, 2021 as compared to $17.0 million in the comparative 2020 period. The increase was primarily driven by activities to support our anticipated tab-cel® launch.

Total general and administrative expenses for the three months ended March 31, 2021 and 2020 were not significantly impacted as a result of the COVID-19 pandemic.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception in 2012, we have funded our operations primarily through the issuance of common and preferred stock, issuance of pre-funded warrants to purchase common stock and upfront fees from the Bayer License Agreement.

In February 2020, we entered into a sales agreement (the 2020 ATM Facility) with Cowen and Company, LLC (Cowen), which provides for the sale, in our sole discretion, of shares of our common stock having an aggregate offering price of up to $100.0 million through Cowen, as our sales agent. The issuance and sale of these shares by us pursuant to the 2020 ATM Facility are deemed “at the market” offerings and are registered under the Securities Act of 1933, as amended (the Securities Act), and are registered under the Securities Act. We pay a commission of up to 3.0% of gross sales proceeds of any common stock sold under the 2020 ATM Facility.

During the three months ended March 31, 2021, we sold an aggregate of 145,630 shares of common stock under the 2020 ATM Facility, at an average price of $17.31 per share for net proceeds of $2.4 million, after deducting commissions and other offering expenses payable by us.

As of March 31, 2021, we have $77.1 million of common stock remained available to be sold under the 2020 ATM Facility, subject to certain conditions as specified in the agreement.

We have incurred losses and negative cash flows from operations in each year since inception. We do not expect to receive any revenues from the sale of products unless and until we obtain regulatory approval for and commercialize any of our product candidates. As such, we anticipate that we will continue to incur losses in the foreseeable future. Additionally, as a result of the COVID-19 pandemic, we have experienced, and may experience in the future, disruptions that could severely impact our business, preclinical studies and clinical trials. We expect that our operating expenses will continue to increase. As a result, we will need additional capital to fund our operations, which we may raise through a combination of equity offerings, debt financings, other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements. We may borrow funds on terms that may include restrictive covenants, including covenants that restrict the operation of our business, liens on assets, high effective interest rates and repayment provisions that reduce cash resources and limit future access to capital markets. In addition, we expect to continue to opportunistically seek access to additional funds through additional public or private equity offerings or debt financings including by utilizing the 2020 ATM Facility, through potential collaborations, partnering or other strategic arrangements, or a combination of the foregoing. However, the trading prices for our common stock and other biopharmaceutical companies have been highly volatile as a result of the COVID-19 pandemic. As a consequence, we may face difficulties raising capital through sales of our common stock or such sales may be on unfavorable terms. We may face similar difficulties in obtaining funding through debt financing or other arrangements. To the extent that we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. To the extent that we raise additional funds through collaboration or partnering arrangements, we may be required to relinquish some of our rights to our technologies or rights to market and sell our products in certain geographies, grant licenses or other rights on terms that are not favorable to us, or issue equity that may be substantially dilutive to our stockholders.

Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation. Currently, our cash, cash equivalents and short-term investments are held in bank and custodial accounts and consist of money market funds, U.S. Treasury, government agency and corporate debt obligations, commercial paper and asset-backed securities. We expect that existing cash, cash equivalents and short-term investments as of March 31, 2021, together with projected revenue from U.S. tab-cel® sales, if approved, will be sufficient to fund our planned operations into 2023, including expenses related to the BLA filing and potential commercial launch of tab-cel® in the U.S.

Our cash, cash equivalents and short-term investments balances as of the dates indicated were as follows:

	March 31, 2021	December 31, 2020
	(in thousands)	
Cash and cash equivalents	$ 151,097	$ 200,404
Short-term investments	284,064	300,255
Total cash, cash equivalents and short-term investments	$ 435,161	$ 500,659

Cash Flows

Comparison of the Three Months Ended March 31, 2021 and 2020

The following table details the primary sources and uses of cash for each of the periods set forth below:

	Three Months Ended March 31,	
	2021	2020
	(in thousands)	
Net cash (used in) provided by:		
Operating activities	$ (65,698)	$ (67,044)
Investing activities	13,499	38,973
Financing activities	2,892	23,957
Net decrease in cash, cash equivalents and restricted cash	$ (49,307)	$ (4,114)

Operating activities

Net cash used in operating activities was $65.7 million in the 2021 period as compared to $67.0 million in the 2020 period. The decrease of $1.3 million was primarily due to a $5.9 million increase in net operating liabilities, partially offset by a $4.8 million increase in net loss.

Investing activities

Net cash provided by investing activities in the 2021 period consisted of $109.8 million received from maturities and sales of available-for-sale securities, partially offset by $94.1 million used to purchase available-for-sale securities and $2.2 million in purchases of property and equipment. Net cash provided by investing activities in the 2020 period consisted primarily of $97.2 million received from maturities and sales of available-for-sale securities, partially offset by $56.9 million used to purchase available-for-sale securities and $1.3 million in purchases of property and equipment.

Financing activities

Net cash provided by financing activities in the 2021 period consisted primarily of $2.5 million of net proceeds received from the ATM facilities and $1.7 million of net proceeds from employee stock award transactions, partially offset by $1.2 million of taxes paid related to the net share settlement of RSUs. Net cash provided by financing activities in the 2020 period consisted primarily of $24.3 million of net proceeds from ATM facilities and $1.3 million of net proceeds from employee stock award transactions, partially offset by $1.4 million of taxes paid related to the net share settlement of RSUs.

Operating Capital Requirements and Plan of Operations

To date, we have not generated any revenue from product sales. We do not know when, or if, we will generate any revenue from product sales. We do not expect to generate any revenue from product sales unless and until we obtain regulatory approval for and commercialize one of our current or future product candidates. We anticipate that we will continue to generate losses for the foreseeable future, and we expect the accumulated losses to increase as we continue the development of and seek regulatory approvals for our product candidates and begin to commercialize any approved products. We are subject to all of the risks inherent in the development of new products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. We anticipate that we will need to raise substantial additional funding in connection with our continuing and expected expansion of our operations.

We expect that our existing cash, cash equivalents and short-term investments as of March 31, 2021, together with projected revenue from U.S. tab-cel® sales, if approved, will be sufficient to fund our operations into 2023, including expenses related to the BLA filing and potential commercial launch of tab-cel® in the U.S. In order to complete the process of obtaining regulatory approval for any of our product candidates and to build the sales, marketing and distribution infrastructure that we believe will be necessary to commercialize our product candidates, if approved, we will require substantial additional funding. In addition, we expect to continue to opportunistically seek access to additional funds through additional public or private equity offerings or debt financings, through potential collaborations, partnering or other strategic arrangements, or a combination of the foregoing.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the timing, costs and results of our ongoing and planned clinical and preclinical studies for our product candidates, including any potential impact of the COVID-19 pandemic;
- our success in establishing and scaling commercial manufacturing capabilities;
- the number and characteristics of product candidates that we pursue;
- the outcome, timing and costs of seeking regulatory approvals;
- subject to receipt of regulatory approval, costs associated with the commercialization of our product candidates and the amount of revenues received from commercial sales of our product candidates;
- the timing of proceeds from the Bayer License Agreement, as well as the terms and timing of any future collaborations, licensing, consulting or other arrangements that we may establish;
- the amount and timing of any payments we may be required to make in connection with the licensing, filing, prosecution, maintenance, defense and enforcement of any patents or patent applications or other intellectual property rights;
- the extent to which we in-license or acquire other products and technologies; and
- the timing of capital expenditures, including the qualification of our manufacturing facility.

Until we are able to generate a sufficient amount of product revenue and generate positive net cash flows from operations, which we may never do, meeting our long-term capital requirements is in large part reliant on access to public and private equity and debt capital markets, augmented by cash generated from operations and interest income earned on the investment of our cash balances. We expect to continue to seek access to the equity and debt capital markets to support our development efforts and operations. To the extent that we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution. To the extent that we raise additional funds through collaboration or partnering arrangements, we may be required to relinquish some of our rights to our technologies or rights to market and sell our products in certain geographies, grant licenses or other rights on terms that are not favorable to us, or issue equity that may be substantially dilutive to our stockholders.

As a result of economic conditions, general global economic uncertainty, political change and other factors, including the ongoing COVID-19 pandemic, we do not know whether additional capital will be available when needed, or that, if available, we will be able to obtain additional capital on reasonable terms. If we are unable to raise additional capital due to the volatile global financial markets, general economic uncertainty or other factors, we will be forced to delay, limit, reduce or terminate preclinical studies, clinical studies or other development activities for one or more of our product candidates.

Contractual Obligations and Commitments

We lease our corporate headquarters in South San Francisco, California under a non-cancellable lease agreement for approximately 13,670 square feet of office space. In October 2020, we entered into an amendment of this lease to extend the lease term by one year and an option to extend the lease for an additional five years. The amended lease expires in May 2022.

In February 2017, we entered into a lease agreement for approximately 90,580 square feet of office, lab and cellular therapy manufacturing space in Thousand Oaks, California. The initial 15-year term of this lease commenced in February 2018, and the contractual obligations during the initial term are $16.4 million in aggregate. We have the option to extend this lease for two additional periods of ten and nine years, respectively, after the initial term. In connection with this lease, we were required to issue a letter of credit in the amount of $1.2 million to the landlord, which is recorded as long-term restricted cash in our condensed consolidated balance sheet.

In November 2018, we entered into a lease agreement for approximately 51,160 square feet of office space in Thousand Oaks, California. The initial term of this lease expires in February 2026. The contractual obligations during the initial term are $8.5 million in aggregate. We have the option to extend the lease for an additional period of five years after the initial term.

In May 2019, we entered into a new lease agreement for approximately 8,800 square feet of office and lab space in Aurora, Colorado. The initial term of this lease expires in April 2024. In February 2021, we further amended this lease to add an additional 2,861 square feet of lab space. The contractual obligations during the lease term are not material. We have the option to extend this lease for two additional five-year periods after the initial term.

In March 2021, we entered into a new lease agreement for approximately 33,659 square feet of office, lab and warehouse space in Thousand Oaks, California. The initial 10.5-year term of this lease is scheduled to commence in July 2021 and the contractual obligations during the initial term are $19.1 million in aggregate. We have the option to extend this lease for two additional five-year periods after the initial term.

Our contractual obligations primarily consist of our obligations under non-cancellable operating and finance leases and contracts we enter into in the normal course of business with clinical research organizations for clinical studies, with contract manufacturing organizations for clinical supplies, and with other vendors for preclinical studies and supplies and other services and products for operating purposes. These contracts generally provide for termination on notice, with the exception of one of our contract manufacturing agreements which we may terminate for convenience upon six months' written notice. With the exception of the aforementioned lease agreement entered into during the first quarter of 2021, there have been no material changes to our contractual obligations and commitments reported in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 1, 2021.

Off-Balance Sheet Arrangements

We did not have, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC, during the periods presented.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

During the three months ended March 31, 2021, there were no material changes to our interest rate risk disclosures, market risk disclosures and foreign currency exchange rate risk disclosures reported in our Annual Report on Form 10-K for the year ended December 31, 2020 filed with the SEC on March 1, 2021.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision of our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act as of March 31, 2021. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of March 31, 2021 to ensure that information required to be disclosed by us 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 our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely discussion regarding required disclosures. In designing and evaluating our disclosure controls and procedures, management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended March 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that most of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the COVID-19 situation to minimize the impact to the design and operating effectiveness of our internal controls.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

None.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. Investors should carefully consider all of the risk factors and uncertainties described below, in addition to the other information contained in this Quarterly Report on Form 10-Q, including the section of this report titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated and combined financial statements and related notes, before investing in our common stock.

The risks described below may not be the only ones relating to our company and additional risks that we currently believe are immaterial may also affect us.If any of these risks, including those described below, materialize, our business, competitive position, reputation, financial condition, results of operations, cash flows and future prospects could be seriously harmed. In these circumstances, the market price of our common stock could decline, and investors may lose all or a part of their investment.

Risks Related to Our Financial Results and Capital Needs

We have incurred substantial losses since our inception and anticipate that we will continue to incur substantial and increasing losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that product candidates will fail to prove effective, gain regulatory approval or become commercially viable. We do not have any products approved by regulatory authorities and have not generated any revenues from product sales, and have incurred significant research, development and other expenses related to our ongoing operations and expect to continue to incur such expenses. As a result, we have not been profitable and have incurred significant operating losses in every reporting period since our inception. For the three months ended March 31, 2021, we reported a net loss of $78.3 million.

We do not expect to generate product revenues in the near future, if at all. We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate these losses to increase as we continue to research, develop and seek regulatory approvals for our product candidates and any additional product candidates we may acquire, in-license or develop, and potentially begin to commercialize product candidates that may achieve regulatory approval. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenues. If any of our product candidates fails in clinical studies or does not gain regulatory approval, or if approved, fails to achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. We anticipate that our expenses will increase in the future as we continue to invest in research and development of our existing product candidates, investigate and potentially acquire new product candidates and expand our manufacturing and commercialization activities.

We have a limited operating history, which may make it difficult to evaluate the success of our business to date and to assess our future viability.

Our company was formed in August 2012. Our operations to date have been limited to organizing and staffing our company, acquiring product and technology rights and conducting product development activities for our product candidates. We have not yet demonstrated our ability to successfully complete any Phase 2 or Phase 3 clinical studies, obtain regulatory approval, consistently 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 commercialization for any of our product candidates. In addition, the adoptive immunotherapy technology underlying our T-cell product candidates, including our next-generation CAR T programs, is new and largely unproven. Any predictions about our future success, performance or viability, particularly in view of the rapidly evolving immunotherapy field, may not be as accurate as they could be if we had a longer operating history or approved products on the market.

In addition, as a young business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. Because of the anticipated completion of our BLA filing for tab-cel® in the third quarter of 2021 and a potential approval decision on the same in the first half of 2022, we plan to begin transitioning from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition. We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, any of our quarterly or annual periods' results are not indicative of future operating performance.

We currently have no approved products and thus have no product revenues. We may never generate revenues from the sale of products or achieve profitability.

To date, we have not generated any revenues from product sales. Even if we are able to successfully achieve regulatory approval for our product candidates, we do not know when we will generate revenues from product sales or become profitable, if at all. Our ability to generate revenues from product sales and achieve profitability will depend on our ability to successfully commercialize products, including any of our current product candidates, and other product candidates that we may develop, in-license or acquire in the future. Our ability to generate revenues from the sale of products and achieve profitability also depends on a number of additional factors, including our ability to:

- successfully complete development activities, including the necessary clinical studies with positive results;
- complete and submit regulatory submissions to the FDA, EMA or other agencies and obtain regulatory approval for indications for which there is a commercial market;
- obtain coverage and adequate reimbursement from third parties, including government and private payors;
- set commercially viable prices for our products, if any;
- develop manufacturing and distribution processes for our novel T-cell immunotherapy product candidates;
- develop commercial quantities of our products at acceptable cost levels;
- establish and maintain adequate supply of our products, including cell lines with sufficient breadth to treat patients;
- establish and maintain manufacturing relationships with reliable third parties or qualify our manufacturing facility such that we can maintain the supply of our products by ensuring adequate, manufacturing of bulk drug substances and drug products in a manner that is compliant with global legal requirements;
- achieve market acceptance of our products, if any;
- attract, hire and retain qualified personnel;
- protect our rights in our intellectual property portfolio;
- develop a commercial organization capable of sales, marketing and distribution for any products we intend to sell ourselves in the markets in which we choose to commercialize on our own; and
- find suitable distribution partners to help us market, sell and distribute our approved products in other markets.

Our revenues for any product candidate for which regulatory approval is obtained will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to get reimbursement at any price, and whether we own the commercial rights for that territory. If the number of our addressable disease patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect, or the reasonably accepted population for treatment is narrowed by competition, physician choice, treatment guidelines or a reduction in the incidence of the addressable disease, we may not generate significant revenues from sales of our products, even if approved. In addition, we anticipate incurring significant costs associated with commercializing any approved product candidate. As a result, even if we generate revenues, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and may be forced to reduce our operations.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

We expect to expend substantial resources for the foreseeable future to continue the clinical development and manufacturing of our T-cell immunotherapy product candidates, and the advancement and expansion of our preclinical research pipeline. We also expect to continue to expend resources for the development and manufacturing of product candidates and the technology we have licensed or have an exclusive right to license from our partners. These expenditures will include costs associated with research and development, potentially acquiring or licensing new product candidates or technologies, conducting preclinical and clinical studies and potentially obtaining regulatory approvals and manufacturing products, as well as marketing and selling products approved for sale, if any. Under the terms of our license agreements with each of our in-license partners, we are obligated to make payments upon the achievement of certain development, regulatory and commercial milestones. We will also need to make significant expenditures to develop a commercial organization capable of sales, marketing and distribution for any products, if any, that we intend to sell ourselves in the markets in which we choose to commercialize on our own. In addition, other unanticipated costs may arise. Because the design and outcome of our ongoing, planned and anticipated clinical studies is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical and clinical studies;
- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates, if clinical studies are successful, including any costs from post-market requirements;
- the cost of commercialization activities for our product candidates, if any of these product candidates is approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our product candidates for clinical studies in preparation for regulatory approval and in preparation for commercialization;
- our ability to establish and maintain strategic licensing or other arrangements and the financial terms of such agreements;
- the costs to develop, acquire or in-license future product candidates or technologies;
- the costs involved in preparing, filing, prosecuting, maintaining, expanding, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;
- the timing, receipt and amount of sales of, or royalties on, our future products, if any; and
- the emergence of competing technologies or other adverse market developments.

We believe that our existing cash, cash equivalents and short-term investments as of March 31, 2021, together with projected revenues from U.S. tab-cel® sales, if approved, will be sufficient to fund our operations into 2023, including expenses related to the BLA filing and potential commercial launch of tab-cel® in the U.S. As of March 31, 2021, we had total cash, cash equivalents and short-term investments of $435.2 million. However, our operating plan may change as a result of many factors currently unknown to us, and we may need additional funds sooner than planned.

We do not have any committed external source of funds other than reimbursements, milestone and royalty payments that we may receive under the Bayer License Agreement, Bayer Tech Transfer Agreement and Bayer Manufacturing Agreement. While we expect to continue to opportunistically seek access to additional fundsthrough additional public or private equity offerings or debt financings, through potential collaborations, partnering or other strategic arrangements, or a combination of the foregoing, additional funds may not be available when we need them on terms that are acceptable to us, or at all. Our ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the disruptions to and volatility in the credit and financial markets in the United States and worldwide, including the trading price of our common stock, resulting from the ongoing COVID-19 pandemic. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate preclinical studies, clinical studies or other development activities for one or more of our product candidates or delay, limit, reduce or terminate our establishment of sales, marketing and distribution capabilities or other activities that may be necessary to commercialize our product candidates.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product candidates on terms that are unfavorable to us.

We may seek required additional capital through a variety of means, including through private and public equity offerings and debt financings. To the extent that we raise additional capital through the sale of equity or convertible debt securities, or if existing holders of warrants exercise their rights to purchase common stock, the ownership interest of existing stockholders will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of stockholders. To the extent equity valuations, including the trading price of our common stock, are depressed as a result of economic disruptions and uncertainty concerning the COVID-19 pandemic or other factors, the potential magnitude of this dilution will increase. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, including incurring additional debt, making capital expenditures, entering into licensing arrangements, or declaring dividends. If we raise additional funds from third parties, we may have to relinquish valuable rights to our technologies or product candidates or grant licenses or other rights on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts for our product candidates, grant to others the rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves or take other actions that are adverse to our business.

Risks Related to the Development of Our Product Candidates

We are generally early in our development efforts and have only a small number of product candidates in clinical development. All of our other product candidates are still in preclinical development. If we or our collaborators are unable to successfully develop and commercialize product candidates or experience significant delays in doing so, our business may be materially harmed.

We are generally early in our development efforts, and only a small number of our product candidates are in clinical development. The majority of our product candidates are currently in preclinical development. We have invested substantial resources in identifying and developing potential product candidates, conducting preclinical and clinical studies, manufacturing activities and preparing for the potential commercial launch of our product candidates. Our ability to generate revenues from the sale of products, if approved, will depend heavily on the successful development and eventual commercialization of our product candidates. The success of our product candidates will depend on many factors, including the following:

- completion of preclinical and clinical studies with positive results;
- receipt of regulatory approvals from applicable authorities;
- protecting our rights in our intellectual property portfolio, including by obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- establishing or making arrangements with third-party manufacturers or completing our own manufacturing facility for clinical and commercial manufacturing purposes;
- developing manufacturing and distribution processes for our novel T-cell product candidates and next-generation CAR T programs;
- manufacturing our product candidates at an acceptable cost;
- launching commercial sales of our products, if approved by applicable regulatory authorities, whether alone or in collaboration with others;
- acceptance of our products, if approved by applicable regulatory authorities, by patients and the medical community;
- obtaining and maintaining coverage and adequate reimbursement by third-party payors, including government payors, for our products, if approved by applicable regulatory authorities;
- effectively competing with other therapies;
- maintaining a continued acceptable benefit/risk profile of the products following approval; and
- maintaining and growing an organization of scientists and functional experts who can develop and commercialize our products and technology.

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 could materially harm our business.

Our business and operations have been affected by and could be materially and adversely affected in the future by the effects of health epidemics and pandemics, including the evolving and ongoing effects of the COVID-19 pandemic. The COVID-19 pandemic continues to impact our business and operations and could materially and adversely affect our business and operations in the future, as well as the businesses and operations of third parties on which we rely.

Our business could be adversely affected by health epidemics and pandemics, including the ongoing COVID-19 pandemic, which has presented a substantial public health and economic challenge around the world and has affected, and continues to affect, our employees, patients, communities and business operations, as well as the U.S. economy and financial markets. The COVID-19 pandemic has resulted in transient, episodic travel and other restrictions to reduce the spread of the disease and included a California executive order and many other foreign, state and local orders (including in locations where we operate facilities), which, among other things, direct individuals to shelter at their places of residence, direct businesses and governmental agencies to cease non-essential operations at physical locations, prohibit certain non-essential gatherings and order cessation of non-essential travel. As a result of the ongoing COVID-19 pandemic, the work-from-home model we implemented for most of our employees remains in place. We continue to maintain essential in-person manufacturing and laboratory functions in order to advance key research, development and manufacturing priorities. In connection with these measures, we may be subject to claims based upon, arising out of, or related to COVID-19 and our actions and responses thereto, including any determinations that we may make to continue to operate or to re-open our offices and facilities where permitted by applicable law. The effects of current and potential future state executive orders, local shelter-in-place orders, government-imposed quarantines, our work-from-home policies and potential return-to-office strategy and other similar, and perhaps more severe, actions may negatively impact productivity, disrupt our business and delay our clinical programs and timelines, the magnitude of which will depend, in part, on the length and severity of the restrictions and other limitations on our ability to conduct our business in the ordinary course.

Further quarantines, shelter-in-place or similar restrictions and other actions taken by foreign, federal, state and local governments, or the perception that such orders, shutdowns or other restrictions on the conduct of business operations could occur or could be reinstated, related to the ongoing COVID-19 pandemic or other infectious diseases, could impact our manufacturing capabilities and third-party manufacturing facilities in the United States and other countries, or the availability or cost of materials, which would disrupt our supply chain. In particular, standard transportation channels have been impacted and we and other manufacturing, testing, product disposition, contract manufacturing organizations (CMOs) and external testing laboratories are subject to enhanced risk assessment and mitigation measures. In addition, there have been and may continue to be interruptions in the supply of leukapheresis collections, which supply raw materials used in our products. Our clinical trials may be affected by health epidemics and have been affected by the ongoing COVID-19 pandemic. Clinical site initiation and patient enrollment have experienced delays as a result of the ongoing COVID-19 pandemic, including due to the prioritization of hospital resources toward COVID-19 and away from clinical trials or as a result of changing practice patterns that impact the diseases our trials address. Some patients may not be able to comply with clinical trial protocols if quarantines impede patient movement or interrupt healthcare services or if patients contract COVID-19 or are forced to quarantine. For example, while most clinical trial sites for our studies, including our Phase 3 clinical trial of tabcel® in patients with EBV+ PTLD, remain open to enrollment for patients, some sites have limited the screening and enrollment of new patients due to governmental orders related to COVID-19, or fear of infection of COVID-19, have limited, and may continue to limit, patients' abilities to access clinical sites. COVID-19-related travel restrictions may also interrupt key clinical trial activities, such as clinical trial site data monitoring and efficacy, safety and translational data collection, processing and analyses. At the outset of the COVID-19 pandemic, we observed a temporary slow-down in stem cell and solid organ transplant volumes, which may have decreased the eligible patient population for the tab-cel® Phase 3 study. In April 2020, we initiated a temporary pause in the screening and enrollment of patients in our RCT of ATA188 in patients with progressive MS. Although we were able to resume the screening and enrollment of patients in our RCT of ATA188 and enrolled the first patient in the study in June 2020, the ongoing COVID-19 pandemic may require us to institute another pause in the screening and enrollment of patients in our RCT. Similarly, our ability to recruit and retain principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19, may be adversely impacted.

In addition, while the potential economic impact brought by, and the duration of, the COVID-19 pandemic and the various actions taken in response to it may be difficult to assess or predict, the pandemic could result in significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. In addition, a recession or market correction resulting from the spread of COVID-19 could materially affect our business and the value of our common stock.

While we expect the ongoing COVID-19 pandemic to continue to adversely affect our business operations, the extent of the impact on our clinical development and regulatory efforts and the value of and market for our common stock will depend on future developments that are highly uncertain and cannot be predicted with confidence at this time, such as the ultimate duration of the pandemic, travel restrictions, quarantines, social distancing and business closure requirements in the U.S. and in other countries, and the effectiveness of actions taken globally to contain and treat COVID-19. In addition, to the extent the evolving effects of the ongoing COVID-19 pandemic adversely affect our business and results of operations, it may also have the effect of heightening many of the other risks and uncertainties described elsewhere in this "Risk Factors" section.

Our future success is dependent on the regulatory approval of our product candidates.

We do not have any products that have gained regulatory approval. Currently, our prioritized clinical-stage product candidates include tab-cel® and ATA188. Our business is substantially dependent on our ability to obtain regulatory approval for, and, if approved, to successfully commercialize our product candidates in a timely manner.

We cannot commercialize product candidates in the U.S. without first obtaining regulatory approval for the product from the FDA; similarly, we cannot commercialize product candidates outside of the U.S. without obtaining regulatory approval from comparable foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of any product candidate for a target indication, we must demonstrate with substantial evidence gathered in preclinical and clinical studies that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate with respect to such product candidate to assure safety, purity and potency.

The time required to obtain approval by the FDA and comparable foreign regulatory authorities is unpredictable but typically takes many years following the commencement of preclinical and clinical studies and depends upon numerous factors, including the substantial discretion of the regulatory authorities. The novel nature of our product candidates may create further challenges in obtaining regulatory approval. For example, the FDA and comparable foreign regulatory authorities have limited experience with regulating the development and commercialization of T-cell immunotherapies, particularly allogeneic T-cell product candidates, and CAR T therapies. In addition, approval policies, regulations, regulatory positions or the type and amount of clinical and other data necessary to gain approval may change during the course of a product candidate's clinical development and throughout regulatory interactions, and may vary among jurisdictions, particularly for novel therapies. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates or any future product candidates will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval from the FDA or a comparable foreign regulatory authority for many reasons, including:

- disagreement with the design or conduct of our clinical studies;
- failure to demonstrate positive benefit/risk profile of the product candidate for its proposed indication;
- failure of clinical studies to meet the level of statistical significance required for approval;
- disagreement with our interpretation of data from preclinical studies or clinical studies;
- the insufficiency of data collected from clinical studies of our product candidates to support the submission and filing of a BLA or other submission or to obtain regulatory approval;
- inability to reach agreement with the FDA or comparable foreign regulatory authorities on the methodologies for, and assessment of, comparability of different versions of product candidates used in non-pivotal studies, pivotal studies and for intended commercial use;
- failure to obtain approval of our manufacturing processes or facilities of third-party manufacturers with whom we contract for clinical and commercial supplies or our own manufacturing facility;
- changes or inconsistencies in the requested or required methodologies, statistical analyses, specification criteria or regulatory submission requirements for a product candidate, including changes to, or inconsistencies with, applicable industry practice or precedent; or
- changes in the: (i) approval policies or regulations that render our preclinical and clinical data insufficient for approval; or (ii) positions, guidance or feedback communicated by the FDA or comparable foreign regulatory authorities.

The FDA or a comparable foreign regulatory authority may require more information, including additional CMC information, preclinical or clinical data to support approval, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request (including failing to approve the most commercially promising indications), may grant approval contingent on the performance of costly post-marketing clinical studies, 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.

In addition, the clinical study requirements of the FDA, EMA and other regulatory agencies and the criteria these regulators use to determine the safety and efficacy of a product candidate are determined according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for novel product candidates, such as our novel T-cell product candidates and next-generation CAR T programs, can be more complex and consequently more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates. Approvals by the EMA and FDA for existing autologous CAR T therapies, such as Novartis's Kymriah® and Gilead's Yescarta®, may not be indicative of what these regulators may require for approval of our therapies. Moreover, our product candidates may not perform successfully in clinical studies or may be associated with adverse events that distinguish them from those that have previously been approved, such as existing autologous CAR T therapies. For instance, allogeneic product candidates may result in adverse events not experienced with autologous products.

Our development and commercialization activities could be harmed or delayed by governmental or regulatory delays due to limitations on the availability of governmental and regulatory agency personnel to review regulatory filings or engage with us, as a result of the COVID-19 pandemic, changes to governmental regulatory requirements, policies, guidelines or priorities, reallocation, or availability of government resources, or for other reasons, which may significantly delay the FDA's, or other regulatory agency, ability to review and process any submissions we have filed or may file or cause other regulatory delays.

Even if a product candidate were to successfully obtain approval from the FDA and comparable foreign regulatory authorities, any approval might contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, or may be subject to burdensome post-approval study or risk management requirements. If we are unable to obtain regulatory approval for one of our product candidates in one or more jurisdictions, or any approval contains significant limitations, we may not be able to obtain sufficient funding to continue the development of that product or generate revenues attributable to that product candidate. Also, any regulatory approval of our current or future product candidates, once obtained, may be withdrawn.

Our T-cell immunotherapy product candidates and our next-generation CAR T programs represent new therapeutic approaches thatcould result in heightened regulatory scrutiny, delays in clinical development or delays in or our inability to achieve regulatory approval, commercialization or payor coverage of our product candidates.

Our future success is dependent on the successful development of T-cell immunotherapies and our next-generation CAR T programs in general and our development product candidates in particular. Because these programs, particularly our pipeline of allogeneic T-cell product candidates that are bioengineered from donors, represent a new approach to immunotherapy for the treatment of cancer and other diseases, developing and commercializing our product candidates subject us to a number of challenges, including:

- obtaining regulatory approval from the FDA and other regulatory authorities, which have limited experience with regulating the development and commercialization of T-cell immunotherapies, particularly allogeneic T-cell product candidates;
- developing and deploying consistent and reliable processes for procuring blood from consenting third-party donors, isolating T cells from the blood of such donors, activating the isolated T cells against a specific antigen, characterizing and storing the resulting activated T cells for future therapeutic use, selecting and delivering a sufficient supply and breadth of appropriate partially HLA-matched cell line from among the available T-cell lines, and finally infusing these activated T cells into patients;
- utilizing these product candidates in combination with other therapies (e.g., immunomodulatory approaches such as checkpoint inhibitors), which may increase the risk of adverse side effects;
- educating medical personnel regarding the potential side effect profile of each of our product candidates, particularly those that may be unique to our allogeneic T-cell product candidates and to our next-generation CAR T programs;
- understanding and addressing variability in the quality of a donor's T cells, which could ultimately affect our ability to manufacture product in a reliable and consistent manner;
- developing processes for the safe administration of these products, including long-term follow-up and registries, for all patients who receive these product candidates;
- manufacturing our product candidates to our specifications and in a timely manner to support our clinical studies and, if approved, commercialization;
- sourcing clinical and, if approved by applicable regulatory authorities, commercial supplies for the materials used to manufacture and process these product candidates that are free from viruses and other pathogens that may increase the risk of adverse side effects;
- developing a manufacturing process and distribution network that can provide a stable supply with a cost of goods that allows for an attractive return on investment;
- establishing sales and marketing capabilities ahead of and after obtaining any regulatory approval to gain market acceptance, and obtaining adequate coverage, reimbursement and pricing by third-party payors and government authorities; and
- developing therapies for types of diseases beyond those initially addressed by our current product candidates.

We cannot be sure that the manufacturing processes used in connection with our T-cell immunotherapy product candidates will yield a sufficient supply of satisfactory products that are safe, pure, potent, comparable to those T cells produced by our partners historically, scalable or profitable.

Moreover, actual or perceived safety issues, including adoption of new therapeutics or novel approaches to treatment, may adversely influence the willingness of subjects to participate in clinical studies, or, if one of our product candidates is approved by applicable regulatory authorities, of physicians to subscribe to the novel treatment mechanics or of patients to provide consent to receive a novel treatment despite its regulatory approval. The FDA or other applicable regulatory authorities may require specific post-market studies or additional information that communicates the benefits or risks of our products. New data may reveal new risks of our product candidates at any time prior to or after regulatory approval.

Physicians, hospitals and third-party payors often are slow to adopt new products, technologies and treatment practices that require additional upfront costs and training. Physicians may not be willing to undergo training to adopt this novel therapy, may decide the therapy is too complex to adopt without appropriate training or not cost-efficient, and may choose not to administer the therapy. Based on these and other factors, hospitals and payors may decide that the benefits of this new therapy do not or will not outweigh its costs.

The results of preclinical studies or earlier clinical studies are not necessarily predictive of future results. Our existing product candidates in clinical studies, and any other product candidate we advance into clinical studies, may not have favorable results in later clinical studies or receive regulatory approval.

Success in preclinical studies and early clinical studies does not ensure that later clinical studies will generate adequate data to demonstrate the efficacy and safety of an investigational drug. Likewise, a number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience than us, have suffered significant setbacks in clinical studies, even after seeing promising results in earlier preclinical studies or clinical studies. Despite the results reported in earlier preclinical studies or clinical studies for our product candidates, we do not know whether the clinical studies we may conduct, or clinical studies in progress, will demonstrate adequate efficacy and safety to result in regulatory approval to market tab-cel®, ATA188, any product candidates resulting from our next-generation CAR T programs or any of our other product candidates in any particular jurisdiction.

Tab-cel® has been predominantly evaluated in single-center studies under investigator-sponsored INDs held by MSK and in our EAP, utilizing different response criteria and endpoints from those we may utilize in later clinical studies. The findings may not be reproducible in late phase studies we conduct. For instance, the current protocol for our ALLELE study is designed to rule out a 20% ORR as the null hypothesis. This means that if the lower bound of the 95% confidence interval on ORR among patients receiving at least one dose of tab-cel® exceeds 20% at the end of the study, then the study would be expected to meet the primary endpoint for the treatment of PTLD. For example, assuming enrollment of 33 patients in a cohort of ALLELE, an observed ORR above approximately 37% would be expected to meet the primary endpoint for that cohort. In addition, our amended ALLELE study protocol includes an interim analysis as well as a final study analysis. Depending on discussions with regulators, we may, for example, file a marketing application on the basis of interim data from a subset of the required patients or file a marketing application on the basis of the final data. A marketing application based on interim data would impact the required ORR and may also result in post-marketing requirements that must be fulfilled. Similarly, if conditional marketing authorization is granted from the European Commission, we may be subject to ongoing obligations, including the need to provide additional clinical data at a later stage to confirm a positive benefit/risk balance.

For regulatory approvals of tab-cel®, we plan on using independent radiologist and/or oncologist assessment of responses which may not correlate with the investigator-reported assessments. In addition, the Phase 2 clinical studies with tab-cel® enrolled a heterogeneous group of patients with a variety of EBV-driven malignancies, including EBV+ PTLD after HCT and EBV+ PTLD after SOT. These Phase 2 studies were not prospectively designed to evaluate the efficacy oftab-cel® in the treatment of a single disease state for which we may later seek approval.

Moreover, final study results may not be consistent with interim study results. Efficacy data from prospectively designed studies may differ significantly from those obtained from retrospective subgroup analyses. In addition, clinical data obtained from a clinical study with an allogeneic product candidate may not yield the same or better results as compared to an autologous product candidate. If later-stage clinical studies do not produce favorable results, our ability to achieve regulatory approval for any of our product candidates may be adversely impacted. Even if we believe that we have adequate data to support an application for regulatory approval to market any of our product candidates, the FDA or other regulatory authorities may not agree and may require that we conduct additional clinical studies.

Interim "top line" and preliminary data from clinical studies that we or our partners may announce or share with regulatory authorities from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we or our partners may announce or share with regulatory authoritiesinterim "top line" or preliminary data from clinical studies. Interim data from completed clinical studies 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. Preliminary or "top line" data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data previously announced. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could impact the regulatory approval of, and significantly harm the prospects of any product candidate that is impacted by the applicable data.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome.

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 study process. Product candidates in later stages of clinical studies may fail to show the desired safety and efficacy traits despite having progressed through preclinical and clinical studies.

We may experience delays in our ongoing or future clinicalstudies and we do not know whether clinical studies will begin or enroll subjects on time, will need to be redesigned or will be completed on schedule, if at all. There can be no assurance that the FDA or comparable foreign regulatory authorities will not put clinical studies of any of our product candidates on clinical hold in the future. Clinical studies may be delayed, suspended or prematurely terminated for a variety of reasons, such as:

- delays in enrollment due to travel, shelter-in-place or quarantine policies, or other factors, related to the ongoing COVID-19 pandemic or other epidemics or pandemics;
- delay or failure in reaching agreement with the FDA or a comparable foreign regulatory authority on a study design that we are able to execute;
- delay or failure in obtaining authorization to commence a study or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a study;
- delay or failure in reaching agreement on acceptable terms with prospective contract research organizations (CROs) and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and study sites;
- delay or failure in obtaining institutional review board (IRB) approval or the approval of other reviewing entities, including comparable foreign regulatory authorities, to conduct a clinical study at each site;
- withdrawal of clinical study sites from our clinical studies or the ineligibility of a site to participate in our clinical studies;
- delay or failure in recruiting and enrolling eligible subjects to participate in a study;
- delay or failure in subjects completing a study or returning for post-treatment follow-up;
- clinical sites and investigators deviating from study protocol, failing to conduct the study in accordance with regulatory requirements, or dropping out of a study;
- an FDA or other regulatory authority clinical site inspection reveals serious violations of regulations applicable to clinical investigations, which may result in requests for additional data analyses and/or rejection of data deemed unreliable;
- inability to identify and maintain a sufficient number of study sites, including because potential study sites may already be engaged in competing clinical study programs enrolling the same population;
- failure of our third-party clinical study managers to satisfy their contractual duties, meet expected deadlines or return trustworthy data;
- delay or failure in adding new study sites;
- interim results or data that are ambiguous or negative or are inconsistent with earlier results or data;
- feedback from the FDA, the IRB, data safety monitoring boards or comparable foreign authorities, or results from earlier stage or concurrent preclinical and clinical studies, that might require modification to the protocol for a study;
- a decision by the FDA, the IRB, comparable foreign authorities, or us, or a recommendation by a data safety monitoring board or comparable foreign authority, to suspend or terminate clinical studies at any time for safety issues or for any other reason;
- unacceptable benefit/risk profile, unforeseen safety issues or adverse side effects;
- failure to demonstrate a benefit from using a product candidate;
- difficulties in manufacturing or obtaining from third parties sufficient quantities and breadth of appropriate partially HLA matched cell lines from among the available T-cell lines to start or to use in clinical studies;
- lack of adequate funding to continue a study, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional studies or increased expenses associated with the services of our CROs and other third parties; or
- changes in governmental regulations or administrative actions or lack of adequate funding to continue a clinical study.

Patient enrollment, a significant factor in the timing of clinical studies, is affected by many factors including:

- the size and nature of the patient population;
- the possibility that the rare diseases that many of our product candidates address are under-diagnosed;

- changing medical practice patterns or guidelines related to the diseases or conditions we are investigating;
- the severity of the disease under investigation, our ability to open clinical study sites;
- the proximity of subjects to clinical sites;
- the patient referral practices of physicians;
- the design and eligibility criteria of the clinical study;
- ability to obtain and maintain patient consents;
- risk that enrolled subjects will drop out or die before completion;
- competition for patients from other clinical studies;
- our or our partner's ability to manufacture the requisite materials for a study;
- risk that we do not have appropriately matched HLA cell lines;
- clinicians' and patients' perceptions as to the potential advantages and risks of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the diseases or conditions we are investigating; and
- disruptions caused by man-made or natural disasters or public health pandemics or epidemics, including, for example, the ongoing COVID-19 pandemic.

As an example, we activated additional clinical sites over the course of 2018 and increased HLA coverage during this period. As a result, enrollment in our studies was limited in the early part of 2018 and increased through the course of the year as we increased clinical sites and HLA coverage. However, in May 2019, we announced that enrollment in our Phase 3 studies of tab-cel® for patients with EBV+ PTLD was proceeding slower than anticipated. Many of our product candidates are designed to treat rare diseases, and as a result, the pool of potential patients with respect to a given disease is small. We may not be able to initiate or continue to support clinical studies of tab-cel®, ATA188 or any other product candidates if we are unable to locate and enroll a sufficient number of eligible participants in these studies as required by the FDA or other regulatory authorities. We have experienced some transient delays in clinical trial site initiation and patient enrollment in certain of our clinical trials, including our Phase 3 clinical trial of tab-cel®, as a result of the evolving impact of the ongoing COVID-19 pandemic, and if the COVID-19 pandemic continues and persists for an extended period of time, we could experience significant disruptions to our clinical development timelines. Even if we are able to enroll a sufficient number of patients in our clinical studies, if the pace of enrollment is slower than we expect, the development costs for our product candidates may increase and the completion of our studies may be delayed or our studies could become too expensive to complete.

We rely on CROs, other vendors and clinical study sites to ensure the proper and timely conduct of our clinical studies, and while we have agreements governing their committed activities, we have limited influence over their actual performance. Reliance on CROs entails risks to which we would not be subject if we conducted our clinical studies ourselves, including reliance on the CRO for clinical site initiation and monitoring, the possibility that the CRO does not maintain the financial resources to meet its obligations under our agreements, the possibility of breach of these agreements by the CRO because of factors beyond our control, including a failure to properly perform their obligations under these agreements, and the possibility of termination or nonrenewal of the agreements by the CROs, based on their own business priorities, at a time that is costly or damaging to us.

If we experience delays or quality issues in the conduct, completion or termination of any clinical study of our product candidates, the approval and commercial prospects of such product candidate will be harmed, and our ability to generate product revenues from such product candidate will be delayed. In addition, any delays in completing our clinical studies will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any delays in completing our clinical studies for our product candidates may also decrease the period of commercial exclusivity. In addition, many of the factors that could cause a delay in the commencement or completion of clinical studies may also ultimately lead to the denial of regulatory approval of our product candidates.

Our product candidates, the methods used to deliver them or their dosage levels may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following any regulatory approval.

Undesirable side effects caused by our product candidates, their delivery methods or dosage levels could cause us or regulatory authorities to interrupt, delay or halt clinical studies and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority. As a result of safety or toxicity issues that we or our partners may experience in our clinical studies, we or our partners may not receive approval to market any product candidates, which could prevent us from ever generating product or royalty revenues or achieving profitability. Results of our studies could reveal an unacceptably high severity and incidence of side effects, or risks that outweigh the benefits of our product candidates. In such an event, our studies 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 subjects to complete the study or result in potential product liability claims.

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

- we may be forced to suspend marketing of that product;
- regulatory authorities may withdraw or change their approvals of that product;
- regulatory authorities may require additional warnings on the label or limit access of that product to selective specialized centers with additional safety reporting and with requirements that patients be geographically close to these centers for all or part of their treatment;
- we may be required to conduct post-marketing studies;
- we may be required to change the way the product is administered;
- we could be sued and held liable for harm caused to subjects or patients; and
- our reputation may suffer.

Any of these events could diminish the usage or otherwise limit the commercial success of our product candidates and prevent us from achieving or maintaining market acceptance of the affected product candidate, if approved by applicable regulatory authorities.

The market opportunities for our product candidates may be limited to those patients who are ineligible for or have failed prior treatments and may be small.

The FDA often approves new cancer therapies initially only for use in patients with relapsed or refractory metastatic disease. We expect to initially seek approval of tab-cel® and our other product candidates in this setting. Subsequently, for those products that prove to be sufficiently beneficial, if any, we would expect to seek approval in earlier lines of treatment and potentially as a first line therapy, but there is no guarantee that our product candidates, even if approved, would be approved for earlier lines of therapy, and, prior to any such approvals, we will have to conduct additional clinical trials.

Our projections of both the number of people who have the diseases we are targeting, as well as the subset of people with these diseases in a position to receive second or later lines of therapy, and who have the potential to benefit from treatment with our product candidates, are based on our current beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations, or our own market research, and may prove to be incorrect, including if the COVID-19 pandemic and associated responses impact our ability to engage with key stakeholders within the transplant center in person. Further, new studies or market research may change the estimated incidence or prevalence of these diseases, and the number of patients may turn out to be lower than expected. Additionally, the potentially addressable patient population for our product candidates may be limited or may not be amenable to treatment with our product candidates. For instance, we expect our lead product candidate, tab-cel®, to initially target a small patient population that suffers from aggressive EBV+PTLD who have failed rituximab or rituximab plus chemotherapy. At the outset of the COVID-19 pandemic, we initially observed a temporary slow-down in stem cell and solid organ transplant volumes. These reductions were transient, but if a reduction in such volumes resumes, it could result in lower PTLD incidence and thus reduce the demand for tab-cel®. Even if we obtain significant market share for our product candidates, because the potential target populations are small, we may never achieve profitability without obtaining regulatory approval for additional indications.

We may not be able to obtain or maintain orphan drug exclusivity for our product candidates.

Regulatory authorities in some jurisdictions, including the U.S., EU and the United Kingdom (U.K.), may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the U.S. Both the FDA and the EMA have granted us orphan designation for tab-cel® for EBV+ PTLD after HCT or SOT.

Generally, if a product with an orphan drug designation subsequently receives the first regulatory approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the EMA or the FDA from approving another marketing application for the same biologic for the same indication for that time period. The applicable period is seven years in the U.S. and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not be maintained or effectively protect the product from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a new drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

BTD by the FDA and PRIME designation by the EMA may not lead to a faster development or regulatory review or approval process and it does not increase the likelihood that our product candidates will receive marketing approval.

Although we have obtained BTD and PRIME designation for tab-cel® for EBV+ PTLD in the U.S. and the EU, respectively, this may not lead to faster development or regulatory review and does not increase our likelihood of success. A breakthrough therapy is defined as a drug or biologic that is intended, alone or in combination with one or more other drugs or biologics, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the drug, or biologic in our case, may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For product candidates that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the study can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Biologics designated as breakthrough therapies by the FDA may also be eligible for priority review. Based on our BTD, we intend to pursue a rolling submission strategy for our BLA for tab-cel® for EBV+ PTLD in the U.S. While the rolling review process may provide the opportunity for ongoing communications with and feedback from the FDA, the FDA may raise issues and pose questions to us that may delay the initiation and completion of our BLA submission, acceptance of the complete BLA for filing, and approval of the BLA, thereby potentially delaying the approval process. We may not be able to provide a satisfactory or a timely response to FDA questions or we may not be able to timely gather the required data to prepare our BLA submissions as we plan. If we are unable to address all questions or concerns the FDA may raise or if we do not have timely access to the data required for the preparation of the BLA, we may not be able to timely initiate and complete our BLA and ultimately receive FDA approval. In addition, the FDA retains discretion to decide not to review the portions of our BLA submitted under the rolling review process until the submission is deemed to be complete.

PRIME designation supports the development and accelerated review by the EMA of new therapies to treat patients with unmet medical need.

Designation as a breakthrough therapy is within the discretion of the FDA, and access to PRIME is at the discretion of the EMA. Receipt of a BTD or PRIME designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under non-expedited FDA or EMA review procedures, respectively, and does not assure ultimate approval by the FDA or EMA, respectively. In addition, the FDA or EMA, respectively, may later decide that the product no longer meets the conditions for qualification and rescind the BTD or PRIME designation or decide that the time period for FDA or EMA, respectively, review or approval will not be shortened.

Failure to obtain regulatory approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In addition to regulations in the U.S., to market and sell our products in the EU, the U.K., many Asian countries and other jurisdictions, we must obtain separate regulatory approvals and comply with numerous and varying regulatory requirements, both from a clinical and manufacturing perspective. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the U.S. generally includes all of the risks associated with obtaining FDA approval. Clinical studies accepted in one country may not be accepted by regulatory authorities in other countries. In addition, many countries outside the U.S. require that a product be

approved for reimbursement before it can be approved for sale in that country. A product candidate that has been approved for sale in a particular country may not receive reimbursement approval in that country. We may not be able to obtain approvals from regulatory authorities or payor authorities outside the U.S. on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory or payor authorities in other countries or jurisdictions, and approval by one regulatory or payor authority outside the U.S. does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market. If we are unable to obtain approval of any of our product candidates by regulatory or payor authorities in the EU, the U.K., Asia or elsewhere, the commercial prospects of that product candidate may be significantly diminished.

Even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

Even if we obtain regulatory approval for a product candidate, it would be subject to ongoing requirements by the FDA and comparable foreign regulatory authorities governing the manufacture, quality control, further development, labeling, packaging, storage, distribution, adverse event reporting, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-marketing information. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance by us and/or our CMOs and CROs for any post-approval clinical studies that we conduct. The safety profile of any product will continue to be closely monitored by the FDA and comparable foreign regulatory authorities after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information after approval of any of our product candidates, they may require labeling changes or establishment of a risk evaluation and mitigation strategy, impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance.

In addition, manufacturers of drug products and their facilities are subject to initial and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices (cGMP), current Good Clinical Practices (GCP), current good tissue practices (cGTP) and other regulations. If we or a regulatory agency discover 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, a regulatory agency may impose restrictions on that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates, or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;
- require us or our partners to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend, withdraw or modify regulatory approval;
- suspend or modify any ongoing clinical studies;
- refuse to approve pending applications or supplements to applications filed by us;
- suspend or impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products, refuse to permit the import or export of products, or require us to initiate a product recall.

The occurrence of any event or penalty described above may inhibit our ability to successfully commercialize our products.

Advertising and promotion of any product candidate that obtains approval in the U.S. will be heavily scrutinized by the FDA, the Department of Justice (the DOJ), the Office of Inspector General of the Department of Health and Human Services (HHS), state attorneys general, members of the U.S. Congress and the public. Additionally, advertising and promotion of any product candidate that obtains approval outside of the U.S. will be heavily scrutinized by comparable foreign entities and stakeholders. For example, a company may not promote "off-label" uses for its drug products. An off-label use is the use of a product for an indication that is not described in the product's FDA-approved label in the U.S. or for uses in other jurisdictions that differ from those approved by the applicable regulatory agencies. Physicians, on the other hand, may prescribe products for off-label uses. Although the FDA and other regulatory agencies do not regulate a physician's choice of drug treatment made in the physician's independent medical judgment, they do restrict promotional communications from companies or their sales force with respect to off-label uses of products for which marketing clearance has not been issued. However, companies may share truthful and not misleading information that is otherwise consistent with a product's FDA approved labeling. Violations, including actual or alleged promotion of our products for unapproved or off-label uses, are subject to enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA or comparable foreign bodies. Any actual or alleged failure to comply with labeling and promotion requirements may result in fines, warning letters, mandates to corrective information to healthcare practitioners, injunctions, or civil or criminal penalties.

Regulations, guidelines and recommendations published by various government agencies and organizations may affect the use of our product candidates.

Changes to regulations, recommendations or other guidelines advocating alternative therapies for the indications we treat could result in decreased use of our products. For example, although treatment with EBV-specific T cells is recognized as a recommended treatment for persistent or progressive EBV+ PTLD as set forth in the 2017 National Comprehensive Cancer Network Guidelines, future guidelines from governmental agencies, professional societies, practice management groups, private health/science foundations and other organizations could lead to decreased ability of developing our product candidates, or decreased use of our products once approved by applicable regulatory authorities.

We may not successfully identify, acquire, develop or commercialize new potential product candidates.

Part of our business strategy is to expand our product candidate pipeline by identifying and validating new product candidates, which we may develop ourselves, in-license or otherwise acquire from others. In addition, in the event that our existing product candidates do not receive regulatory approval or are not successfully commercialized, then the success of our business will depend on our ability to expand our product pipeline through in-licensing or other acquisitions. We may be unable to identify relevant product candidates. If we do identify such product candidates, we may be unable to reach acceptable terms with any third party from which we desire to in-license or acquire them.

Bayer is generally responsible for the conduct and funding of the development and commercialization of ATA2271 and ATA3271.

Pursuant to the Bayer License Agreement, Bayer holds an exclusive, field-limited license to ATA2271 and ATA3271. As a result, other than the development of ATA2271 through Phase 1, Bayer is generally responsible for the development and obtaining and maintaining regulatory approval of ATA2271 and ATA3271.

We do not control the development activities being conducted or that may be conducted in the future by Bayer, including, but not limited to, the timing of initiation, termination or completion of clinical trials, the analysis of data arising out of those clinical trials or the timing of release of data concerning those clinical trials, which may impact our ability to report on Bayer's results. Bayer may conduct these activities more slowly or in a different manner than we would if we controlled the development of ATA2271 after Phase 1 and ATA3271. Bayer is responsible for submitting future applications to the FDA and other regulatory authorities for approval of ATA2271 and ATA3271 and will be the owner of marketing approvals issued by the FDA and other regulatory authorities for ATA2271 and ATA3271, if approved. If the FDA or other regulatory authorities approve ATA2271 and/or ATA3271, Bayer will also be responsible for the marketing and sale of the resulting product. However, we cannot control whether Bayer will devote sufficient attention and resources to the development of ATA2271 and/or ATA3271 or will proceed in an expeditious manner. Even if the FDA or other regulatory agencies approve ATA2271 and/or ATA3271, Bayer may elect not to proceed with the commercialization of the resulting product in one or more countries.

In March 2021, we entered into the Bayer Manufacturing Agreement for the supply of allogenic mesothelin-directed CAR T-cell therapies for clinical trials. Delays to the activities contemplated by the Bayer Manufacturing Agreement may result in a delay in the ATA2271 and/or ATA3271 programs and would delay and could prevent us from obtaining revenues for this product candidate.

Disputes may arise between us and Bayer, which may delay or cause the termination of any clinical trials of ATA2271 and/or ATA3271, result in significant litigation or cause Bayer to act in a manner that is not in our best interest. The costs associated with the continuing development of ATA2271 and/or ATA3271 may cause Bayer to reconsider the terms of its investment and seek to amend or terminate our agreement or to suspend the development of ATA2271 and/or ATA3271. If development of ATA2271 and/or ATA3271 does not progress for these or any other reasons, we would not receive milestone payments or royalties on product sales from Bayer with respect to ATA2271 and/or ATA3271. If the results of one or more clinical trials with ATA2271 and/or ATA3271 do not meet Bayer's expectations at any time, Bayer may elect to terminate further development of ATA2271 and/or ATA3271 or certain of the potential clinical trials for ATA2271 and/or ATA3271, even if the actual number of patients treated at that time is relatively small. In addition, Bayer generally has discretion to elect whether to pursue or abandon the development of ATA2271 and/or ATA3271 and may terminate our strategic alliance in whole or on a product-by-product basis for any reason upon 120 days prior notice. If Bayer abandons ATA2271 and/or ATA3271, it would result in a delay in or could prevent us from commercializing ATA2271 and/or ATA3271 and would delay and could prevent us from obtaining revenues for this product candidate.

If Bayer abandons development of ATA2271 and/or ATA3271 prior to regulatory approval or if it elects not to proceed with commercialization of the resulting product following regulatory approval, we would have to seek a new partner for development or commercialization, curtail or abandon that development or commercialization, or undertake and fund the development of ATA2271 and/or ATA3271 or commercialization of the resulting product ourselves. If we seek a new partner but are unable to do so on acceptable terms, or at all, or do not have sufficient funds to conduct the development or commercialization of ATA2271 and/or ATA3271 ourselves, we would have to curtail or abandon that development or commercialization, which could harm our business.

We may not realize the benefits of strategic alliances that we may form in the future or of potential future product acquisitions or licenses.

We may desire to form additional strategic alliances, create joint ventures or collaborations, enter into licensing arrangements with third parties or acquire products or business, in each case that we believe will complement or augment our existing business. These relationships or transactions, or those like them, may require us to incur nonrecurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders, reduce the potential profitability of the products that are the subject of the relationship or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic alliances and transactions and the negotiation process is time-consuming and complex and there can be no assurance that we can enter into any of these transactions even if we desire to do so. Moreover, we may not be successful in our efforts to establish a strategic alliance or other alternative arrangements for any future product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early a stage of development for collaborative effort and third parties may not view our product candidates and programs as having the requisite potential to demonstrate a positive benefit/risk profile. Any delays in entering into new strategic alliances agreements related to our product candidates could also delay the development and commercialization of our product candidates and reduce their competitiveness even if they reach the market.

If we license products or acquire businesses, we may not be able to realize the benefit of these transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following an acquisition or license, we will achieve the financial or strategic results that would justify the transaction.

Risks Related to Manufacturing

We are subject to a multitude of manufacturing risks, any of which could substantially increase our costs and limit supply of our product candidates.

Concurrently with the in-license of our existing product candidates, we acquired manufacturing process know-how and, in some cases, inventory of process intermediates and clinical materials from our partners. Transferring manufacturing processes, testing and associated 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 different facilities may require utilization of new or different processes to meet the specific requirements of a given facility. Each stage is retroactively and concurrently verified to be compliant with appropriate regulations. As a result, there is a risk that all relevant know-how was not adequately transferred to us from our partners or that previous execution was not compliant with applicable regulations.

In addition, we need to conduct significant development and scale-up work to transfer these processes and manufacture each of our product candidates for various studies, clinical studies and commercial launch readiness. To the extent we elect to transfer manufacturing within our network, we are required to demonstrate that the product manufactured in the new or “receiving” facility is comparable to the product manufactured in the original or “sending” facility. The inability to demonstrate to each of the applicable regulatory authorities that comparable drug product was manufactured could delay the development of our product candidates.

The processes by which our product candidates are manufactured were initially developed by our partners for clinical purposes. We intend to evolve the existing processes with our partners to support advanced clinical studies and commercialization requirements. Developing commercially viable manufacturing processes is a difficult and uncertain task, and there are risks associated with scaling to the level required for advanced clinical studies or commercialization, including cost overruns, potential problems with process scale-up, process reproducibility, stability issues, consistency and timely availability of reagents or raw materials. The manufacturing facilities in which our product candidates will be made could be adversely affected by the ongoing COVID-19 pandemic, earthquakes and other natural or man-made disasters, equipment failures, labor shortages, power failures, and numerous other factors. In addition, there have been, and there may continue to be, interruptions in the supply of leukapheresis collections related to the COVID-19 pandemic, which supply raw materials used in our product candidates. If we are unable to obtain such raw materials or other necessary raw materials in a timely manner, our business operations and manufacturing capabilities could be adversely affected.

The process of manufacturing cellular therapies is susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, or vendor or operator error. Even minor deviations from normal manufacturing and distribution processes for any of our product candidates could result in reduced production yields, impact to key product quality attributes, and other supply disruptions. Product defects can also occur unexpectedly. If microbial, viral or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, these manufacturing facilities may need to be closed for an extended period of time to allow us to investigate and remedy the contamination. Because our T-cell immunotherapy product candidates are manufactured from the blood of third-party donors, the process of manufacturing is susceptible to the availability of the third-party donor material. The process of developing products that can be commercialized may be particularly challenging, even if they otherwise prove to be safe and effective. The manufacture of these product candidates involves complex processes. Some of these processes require specialized equipment and highly skilled and trained personnel. The process of manufacturing these product candidates will be susceptible to additional risks, given the need to maintain aseptic conditions throughout the manufacturing process. Contamination with viruses or other pathogens in either the donor material or materials utilized in the manufacturing process or ingress of microbiological material at any point in the process may result in contaminated or unusable product. This type of contaminations could result in delays in the manufacture of products which could result in delays in the development of our product candidates. These contaminations could also increase the risk of adverse side effects. Furthermore, our allogeneic products ultimately consist of many individual cell lines, each with a different HLA profile. As a result, the selection and distribution of the appropriate cell line for therapeutic use in a patient requires close coordination between clinical operations, supply chain and quality assurance personnel.

Any adverse developments affecting manufacturing operations for our product candidates may result in lot failures, inventory shortages, shipment delays, product withdrawals or recalls or other interruptions in the supply of our drug product which could delay the development of our product candidates. We may also have to write off inventory, incur other charges and expenses for supply of drug product that fails to meet specifications, undertake costly remediation efforts, or seek more costly manufacturing alternatives. Inability to meet the demand for our product candidates could damage our reputation and the reputation of our products among physicians, healthcare payors, patients or the medical community that supports our product development efforts, including hospitals and outpatient clinics.

We intend to manufacture a majority of our product candidates ourselves. Delays in receiving regulatory approvals for product candidates produced in our manufacturing facility could delay our development plans and thereby limit our ability to generate revenues.

The research and development and process and analytical development labs within our manufacturing facility in Thousand Oaks, California are currently supporting preclinical development activities. The facility commissioning and qualification activities required to support production at our facility were completed in 2018. Product-specific qualification to support clinical development is complete and commercial production qualification activities are ongoing. If the appropriate regulatory approvals for manufacturing product candidates in our facility are delayed, we may not be able to manufacture sufficient quantities of our product candidates, which would limit our development activities and our opportunities for growth.

In addition to the similar manufacturing risks described in "Risks Related to Our Dependence on Third Parties," our manufacturing facility will be subject to ongoing, periodic inspection by the FDA, EMA or other comparable regulatory agencies to ensure compliance with cGMP and GTP. Our failure to follow and document our adherence to these regulations or other regulatory requirements may lead to significant delays in the availability of products for clinical or, in the future, commercial use, may result in the termination of or a hold on a clinical study, or may delay or prevent filing or approval of commercial marketing applications for our product candidates. We also may encounter problems with the following:

- achieving adequate or clinical-grade materials that meet regulatory agency standards or specifications with consistent and acceptable production yield and costs;
- shortages of qualified personnel, raw materials or key contractors; and
- ongoing compliance with cGMP regulations and other requirements of the FDA, EMA or other comparable regulatory agencies.

Failure to comply with applicable regulations could also result in sanctions being imposed on us, including fines, injunctions, civil penalties, a requirement to suspend or put on hold one or more of our clinical studies, failure of regulatory authorities to grant marketing approval of our product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates, operating restrictions and criminal prosecutions, any of which could harm our business.

Developing advanced manufacturing techniques and process controls is required to fully utilize our facility. Without further investment, advances in manufacturing techniques may render our facility and equipment inadequate or obsolete.

A number of the product candidates in our portfolio, if approved by applicable regulatory authorities, may require significant commercial supply to meet market demand. In these cases, we may need to increase, or "scale up," the production process by a significant factor over the initial level of production. If we are unable to do so, are delayed, or if the cost of this scale up is not economically feasible for us or we cannot find a third-party supplier, we may not be able to produce our product candidates in a sufficient quantity to meet future demand.

If our sole clinical or commercial manufacturing facility or our CMO is damaged or destroyed or production at these facilities is otherwise interrupted, our business would be negatively affected.

If any manufacturing facility in our manufacturing network, or the equipment in these facilities, is either damaged or destroyed, we may not be able to quickly or inexpensively replace our manufacturing capacity or replace it at all. In the event of a temporary or protracted loss of a facility or its equipment, we may not be able to transfer manufacturing to a third party in the time required to maintain supply. Even if we could transfer manufacturing to a third party, the shift would likely be expensive and time-consuming, particularly since the new facility would need to comply with the necessary regulatory requirements or may require regulatory approval before selling any products manufactured at that facility. Such an event could delay our clinical studies or reduce our commercial product sales.

Currently, we maintain insurance coverage against damage to our property and to cover business interruption and research and development restoration expenses. However, our insurance coverage may not reimburse us, or may not be sufficient to reimburse us, for any expenses or losses we may suffer. We may be unable to meet our requirements for our product candidates if there were a catastrophic event or failure of our current manufacturing facility or processes.

Risks Related to Our Dependence on Third Parties

Maintaining clinical and commercial timelines is dependent on our end-to-end supply chain network to support manufacturing; if we experience problems with our third party suppliers we may delay development and/or commercialization of our product candidates.

We rely in part on our CMOs or our partners for the current production of our product candidates and the acquisition of materials incorporated in or used in the manufacturing or testing of our product candidates. Our CMOs or partners are not our employees, and except for remedies available to us under our agreements with our CMOs or partners, we cannot directly control whether or not they devote sufficient time and resources, including experienced staff, to the manufacturing of supply for our ongoing clinical, nonclinical and preclinical programs. Our CMOs for tab-cel® will need to be prepared to undergo pre-approval inspection in connection with our anticipated BLA, and we cannot be certain that we will be able to adequately support them through such inspection nor that they will successfully pass any such inspection.

To meet our projected supply needs for clinical and commercial materials to support our activities through regulatory approval and commercial manufacturing of tab-cel®, ATA188, any product candidates resulting from our next-generation CAR T programs or any other product candidates, we will need to transition the manufacturing of these materials to a CMO or our own facility. Regardless of where production occurs, we will need to develop relationships with suppliers of critical starting materials or reagents, increase the scale of production and demonstrate comparability of the material produced at these facilities to the material that was previously produced. 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 different facilities may require utilization of new or different processes to meet the specific requirements of a given facility. We would expect additional comparability work will 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 the related evaluations) intended to demonstrate the comparability of material previously produced with that generated by our CMO.

If we are not able to successfully transfer and produce comparable product candidates, our ability to further develop and manufacture our product candidates may be negatively impacted.

While our manufacturing facility in Thousand Oaks, California provides us with flexibility within our manufacturing network, we still may need to identify additional CMOs for continued production of supply for some of our product candidates. Given the nature of our manufacturing processes, the number of CMOs who possess the requisite skill and capability to manufacture our T-cell immunotherapy product candidates is limited. We have not yet identified alternate suppliers in the event the current CMOs that we utilize are unable to scale production, or if we otherwise experience any problems with them.

Manufacturing cellular therapies is complicated and tightly regulated by the FDA and comparable regulatory authorities around the world, and although alternative third-party suppliers with the necessary manufacturing and regulatory expertise and facilities exist, it could be expensive and take a significant amount of time to arrange for alternative suppliers, transfer manufacturing procedures to these alternative suppliers, and demonstrate comparability of material produced by such new suppliers. New manufacturers of any product candidate or intermediate would be required to qualify under applicable regulatory requirements. These manufacturers may not be able to manufacture our product candidates at costs, or in sufficient quantities, or in a timely manner necessary to complete development of our product candidates or make commercially successful products. If we are unable to arrange for alternative third-party manufacturing sources, or to do so on commercially reasonable terms or in a timely manner, we may not be able to complete development of our product candidates, or market or distribute them. In addition, should the FDA or comparable regulatory authorities not agree with our product candidate specifications and comparability methodologies or assessments for these materials, regulatory authorities may require that we conduct additional studies, including bridging comparability testing, and further clinical development of our product candidates could be substantially delayed.

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 assurance, the possibility that the third-party manufacturer does not maintain the financial resources to meet its obligations under the manufacturing agreement, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, including a failure to manufacture our product candidates or any products we may eventually commercialize in accordance with our specifications, misappropriation of our proprietary information, including our trade secrets and know-how, the possibility that the third-party does not devote sufficient time or resources to our product candidates or any products we may eventually commercialize based on its own business priorities, the possibility that the third-party is acquired by another party and changes its business priorities, and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities require that our product candidates and any products that we may eventually commercialize be manufactured according to cGMP, cGTP and similar regulatory jurisdictional standards. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation. The FDA or similar foreign regulatory agencies may also implement new standards at any time or change their interpretations and enforcement of existing standards for manufacture, packaging or testing of products. We have limited control over our manufacturers' compliance with these regulations and standards and although we monitor our manufacturers, we depend on them to provide honest and accurate information. Any failure by our third-party manufacturers to comply with cGMP or cGTP 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. In addition, such failure could be the basis for the FDA to issue a warning letter, withdraw approvals for product candidates previously granted to us, or take other regulatory or legal action, including recall or seizure of outside supplies of the product candidate, total or partial suspension of production, suspension of ongoing clinical studies, refusal to approve pending applications or supplemental applications, detention or product, refusal to permit the import or export of products, injunction or imposing civil and criminal penalties.

We depend on third party suppliers for key materials used to produce our product candidates. Any significant disruption in our supplier relationships could harm our business. Any significant delay in the supply of a product candidate for an ongoing clinical study could considerably delay initiation or completion of our clinical studies, product testing and potential regulatory approval of our product candidates. If raw materials or components cannot be purchased or fail to meet approved specifications, the commercial launch of our product candidates could be delayed, or there could be a shortage in supply, which could impair our ability to generate revenues from the sale of our product candidates.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain sufficient intellectual property protection for our product candidates, or if the scope of the intellectual property protection is not sufficiently broad, our ability to commercialize our product candidates successfully and to compete effectively may be adversely affected.

We rely upon a combination of patents, trademarks, trade secrets and confidentiality agreements – both that we own or possess or that are owned or possessed by our partners that are in-licensed to us – to protect the intellectual property related to our technology and product candidates. When we refer to "our" technologies, inventions, patents, patent applications or other intellectual property rights, we are referring to both the rights that we own or possess as well as those that we in-license, many of which are critical to our intellectual property protection and our business. For example, the product candidates and platform technology we have licensed from our partners are protected primarily by patent or patent applications of our partners that we have licensed and as confidential know-how and trade secrets. If the intellectual property that we rely on is not adequately protected, competitors may be able to use our technologies and erode or negate any competitive advantage we may have.

The patentability of inventions and the validity, enforceability and scope of patents in the biotechnology field is uncertain because it involves complex legal, scientific and factual considerations, and it has in recent years been the subject of significant litigation. Moreover, the standards applied by the U.S. Patent and Trademark Office (USPTO) and non-U.S. patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology patents.

There is no assurance that all potentially relevant prior art relating to our patents and patent applications is known to us or has been found in the instances where searching was done. We may be unaware of prior art that could be used to invalidate an issued patent or prevent a pending patent application from issuing as a patent. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim of one of our patents or patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of such claim. As a consequence of these and other factors, our patent applications may fail to result in issued patents with claims that cover our product candidates in the U.S. or in other countries.

Even if patents have issued or do successfully issue from patent applications, and even if these patents cover our product candidates, third parties may challenge the validity, enforceability or scope thereof, which may result in these patents being narrowed, invalidated or held to be unenforceable. No assurance can be given that if challenged, our patents would be declared by a court to be valid or enforceable.

Even if unchallenged, our patents and patent applications or other intellectual property rights may not adequately protect our intellectual property, provide exclusivity for our product candidates or prevent others from designing around our claims. The possibility exists that others will develop products on an independent basis which have the same effect as our product candidates and which do not infringe our patents or other intellectual property rights, or that others will design around the claims of patents that we have had issued that cover our product candidates. If the breadth or strength of protection provided by our patents and patent applications with respect to our product candidates is threatened, it could jeopardize our ability to commercialize our product candidates and dissuade companies from collaborating with us.

We may also desire to seek a license from a third party who owns intellectual property that may be useful for providing exclusivity for our product candidates, or for providing the ability to develop and commercialize a product candidate in an unrestricted manner. There is no guarantee that we will be able to obtain a license from such a third party on commercially reasonable terms, or at all.

In addition, 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. While an inadvertent lapse 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.

We and our partners have filed a number of patent applications covering our product candidates or methods of using or making those product candidates. We cannot offer any assurances about which, if any, patents will be issued with respect to these pending patent applications, the breadth of any such patents that are ultimately issued or whether any issued patents will be found invalid and unenforceable or will be threatened by third parties. Because patent applications in the U.S. and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we or our partners were the first to file any patent application related to a product candidate. We or our partners may also become involved in proceedings regarding our patents, including patent infringement lawsuits, interference or derivation proceedings, oppositions, and *inter partes* and post-grant review proceedings before the USPTO, the European Patent Office and other non-U.S. patent offices.

Even if granted, patents have a limited lifespan. In the U.S., the natural expiration of a patent generally occurs 20 years after it is filed. Although various extensions may be available if certain conditions are met, the life of a patent and the protection it affords is limited. If we encounter delays in our clinical studies or in obtaining regulatory approvals, the period of time during which we could exclusively market any of our product candidates under patent protection, if approved, could be reduced. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be vulnerable to competition from biosimilar products, as we may be unable to prevent competitors from entering the market with a product that is similar or identical to our product candidates.

Furthermore, the research resulting in certain of our licensed patent rights and technology was funded by the U.S. government. As a result, the government has certain rights to these patent rights and technology. When new technologies are developed with government funding, the government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to practice the invention for or on behalf of the U.S. These rights may permit the government to disclose confidential information on which we rely to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U.S. industry. In addition, our rights in any inventions that result from government-funded research may be subject to certain requirements to manufacture products embodying these inventions in the U.S.

If we are sued for infringing the intellectual property rights of third parties, the resulting litigation could be costly and time-consuming and could prevent or delay our development and commercialization efforts.

Our commercial success depends, in part, on us and our partners not infringing the patents and proprietary rights of third parties. There is a substantial amount of litigation and other adversarial proceedings, both within and outside the U.S., involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interference or derivation proceedings, oppositions, and *inter partes* and post-grant review proceedings before the USPTO and non-U.S. patent offices. Numerous U.S. and non-U.S. issued patents and pending patent applications owned by third parties exist in the fields in which we are developing and may develop our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of third parties' patent rights, as 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 or predictable.

Third parties may assert infringement claims against us based on existing or future intellectual property rights, alleging that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacturing of our product candidates that we failed to identify. For example, patent applications covering our product candidates could have been filed by others without our knowledge, since these applications generally remain confidential for some period of time after their filing date. Even pending patent applications that have been published, including some of which we are aware, could be later amended in a manner that could cover our product candidates or their use or manufacture. In addition, we may have analyzed patents or patent applications of third parties that we believe are relevant to our activities and believe that we are free to operate in relation to any of our product candidates, but our competitors may obtain issued claims, including in patents we consider to be unrelated, which may block our efforts or potentially result in any of our product candidates or our activities infringing their claims.

If we or our partners are sued for patent infringement, we would need to demonstrate that our product candidates, products and methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving that a patent is invalid is difficult and even if we are successful in the relevant proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted from other activities. If any issued third-party patents were held by a court of competent jurisdiction to cover aspects of our materials, formulations, methods of manufacture or methods for treatment, we could be forced, including by court order, to cease developing, manufacturing or commercializing the relevant product candidate until the relevant patent expired. Alternatively, we may desire or be required to obtain a license from such third party in order to use the infringing technology and to continue developing, manufacturing or marketing the infringing product candidate. However, we may not be able to obtain any required license on commercially reasonably terms, or at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property licensed to us.

We may face claims that we misappropriated the confidential information or trade secrets of a third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using these trade secrets, which could limit our ability to develop our product candidates.

Defending against intellectual property claims could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle before a final judgment, any litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. During the course of any intellectual property litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation and these announcements may have negative impact on the perceived value of our product candidates, programs or intellectual property. In the event of a successful intellectual property claim against us, we may have to pay substantial damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent, or to redesign our infringing product candidates, which may be impossible or require substantial time and monetary expenditure. In addition to paying monetary damages, we may lose valuable intellectual property rights or personnel and the parties making claims against us may obtain injunctive or other equitable relief, which could impose limitations on the conduct of our business. We may also elect to enter into license agreements in order to settle patent infringement claims prior to litigation, and any of these license agreements may require us to pay royalties and other fees that could be significant. As a result of all of the foregoing, any actual or threatened intellectual property claim could prevent us from developing or commercializing a product candidate or force us to cease some aspect of our business operations.

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

Filing, prosecuting, enforcing and defending patents on all of our product candidates in all countries throughout the world would be prohibitively expensive. Our intellectual property rights in certain countries outside the U.S. may be less extensive than those in the U.S. In addition, the laws of certain foreign countries do not protect intellectual property rights to the same extent as laws in the U.S. Consequently, we and our partners may not be able to prevent third parties from practicing our inventions in countries outside the U.S., or from selling or importing infringing products made using our inventions in and into the U.S. or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection or where we do not have exclusive rights under the relevant patents to develop their own products and, further, may export otherwise-infringing products to territories where we and our partners have patent protection but where enforcement is not as strong as that in the U.S. These infringing products may compete with our product candidates in jurisdictions where we or our partners have no issued patents or where we do not have exclusive rights under the relevant patents, or our patent claims and other intellectual property rights may not be effective or sufficient to prevent them from so 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 and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us and our partners to stop the infringement of our patents or marketing of competing products in violation of our intellectual property rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims against us or our partners. We or our partners may not prevail in any lawsuits that we or our licensors initiate, and even if we or our licensors are successful the damages or other remedies awarded, if any, may not be commercially meaningful.

We have in-licensed a significant portion of our intellectual property from our partners. If we breach any of our license agreements with these partners, we could lose the ability to continue the development and potential commercialization of one or more of our product candidates.

We hold rights under license agreements with our partners, including MSK, QIMR Berghofer and Moffitt that are important to our business. Our discovery and development platform is built, in part, around patent rights in-licensed from our partners. Under our existing license agreements, we are subject to various obligations, including diligence obligations with respect to development and commercialization activities, payment obligations upon achievement of certain milestones and royalties on product sales. If there is any conflict, dispute, disagreement or issue of nonperformance between us and our counterparties regarding our rights or obligations under these license agreements, including any conflict, dispute or disagreement arising from our failure to satisfy diligence or payment obligations, we may be liable to pay damages and our counterparties may have a right to terminate the affected license. The termination of any license agreement with one of our partners would materially adversely affect our ability to utilize the intellectual property that is subject to that license agreement in our drug discovery and development efforts, our ability to enter into future collaboration, licensing and/or marketing agreements for one or more affected product candidates and our ability to commercialize the affected product candidates. Furthermore, a disagreement under any of these license agreements may harm our relationship with the partner, which could have negative impacts on other aspects of our business.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time-consuming and unsuccessful and have a material adverse effect on the success of our business.

Third parties may infringe our patents or misappropriate or otherwise violate our intellectual property rights. Our patent applications cannot be enforced against third parties practicing the technology claimed in these applications unless and until a patent issues from the applications, and then only to the extent the issued claims cover the technology. In the future, we or our partners may elect to initiate legal proceedings to enforce or defend our or our partners' intellectual property rights, to protect our or our partners' trade secrets or to determine the validity or scope of our intellectual property rights. Any claims that we or our partners assert against perceived infringers could also provoke these parties to assert counterclaims against us or our partners alleging that we or our partners infringe their intellectual property rights or that our intellectual property rights are invalid.

Interference or derivation proceedings provoked by third parties, brought by us or our partners, or brought by the USPTO or any non-U.S. patent authority may be necessary to determine the priority of inventions or matters of inventorship with respect to our patents or patent applications. We or our partners may also become involved in other proceedings, such as reexamination or opposition proceedings, *inter partes* review, post-grant review or other pre-issuance or post-grant proceedings in the USPTO or its foreign counterparts relating to our intellectual property or the intellectual property of others. An unfavorable outcome in any of these proceedings could require us or our partners to cease using the related technology and commercializing our product candidates, 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 or our partners a license on commercially reasonable terms if any license is offered at all. Even if we or our licensors obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us or our licensors. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Any intellectual property proceedings can be expensive and time-consuming. Our or our partners' adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our partners can. Accordingly, despite our or our partners' efforts, we or our partners may not be able to prevent third parties from infringing upon or misappropriating our intellectual property rights, particularly in countries where the laws may not protect our rights as fully as in the U.S. Even if we are successful in the relevant proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted from other activities. We could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent. In addition, in an infringement proceeding, a court may decide that one or more of our patents is invalid or unenforceable, in whole or in part, 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 proceeding could put one or more of our patents at risk of being invalidated, held unenforceable or interpreted narrowly.

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 we are unable to protect the confidentiality of our trade secrets and other proprietary information, the value of our technology could be materially adversely affected and our business could be harmed.

In addition to seeking the protection afforded by patents, we 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 other elements of our technology, discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. The T-cell immunotherapy product candidates and platform technology we have licensed from our partners are protected primarily as confidential know-how and trade secrets. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, including by enabling them to develop and commercialize products substantially similar to or competitive with our product candidates, thus eroding our competitive position in the market.

Trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements and invention assignment agreements with our employees, consultants, and outside scientific advisors, contractors and collaborators. These agreements are designed to protect our proprietary information. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, or outside scientific advisors might intentionally or inadvertently disclose our trade secrets or confidential, proprietary information to competitors. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position.

Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, the laws of certain foreign countries do not protect proprietary rights such as trade secrets to the same extent or in the same manner as the laws of the U.S. Misappropriation or unauthorized disclosure of our trade secrets to third parties could impair our competitive advantage in the market and could materially adversely affect our business, results of operations and financial condition.

Risks Related to Commercialization of Our Product Candidates

Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and the medical community, including hospitals and outpatient clinics.

Even if we obtain regulatory approval for any of our product candidates that we may develop or acquire in the future, the product may not gain market acceptance among physicians, healthcare payors, patients or the medical community that supports our product development efforts, including hospitals and outpatient clinics. Market acceptance of any of our product candidates for which we receive approval depends on a number of factors, including:

- the efficacy and safety of the product candidates as demonstrated in clinical studies;
- the clinical indications and patient populations for which the product candidate is approved;
- acceptance by physicians and patients of the drug as a safe and effective treatment;
- the administrative and logistical burden of treating patients;
- the ability to identify in a timely manner the appropriate target patients who will benefit from specific therapy;
- the adoption of novel cellular therapies by physicians, hospitals and third-party payors;
- the potential and perceived advantages of product candidates over alternative treatments;
- the safety of product candidates seen in a broader patient group, including its use outside the approved indications;
- any restrictions on use together with other medications;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- the timing of market introduction of our products as well as competitive products;
- the development of manufacturing and distribution processes for our product candidates;
- the cost of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement from, and our ability to negotiate pricing with, third-party payors and government authorities;
- relative convenience and ease of administration; and
- the effectiveness of our sales and marketing efforts and those of our collaborators.

Even if we are able to commercialize our product candidates, the products may not receive coverage and adequate reimbursement from third-party payors in the U.S. and in other countries in which we seek to commercialize our products, which could harm our business.

Our ability to commercialize any product successfully will depend, in part, on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations.

Government authorities and third-party payors, such as private health insurers and health maintenance organizations, determine which medications they will cover and establish reimbursement levels. A primary trend in the healthcare industry is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Third-party payors may also seek additional clinical evidence, beyond the data required to obtain regulatory approval, demonstrating clinical benefits and value in specific patient populations before covering our products for those patients. We cannot be sure that coverage and adequate reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. In some

countries such as the U.S., greater cost-shifting from the payor to the patient is also a trend, and higher patient copayments or other administrative burdens could lead to reduced demand from patients or healthcare professionals. This could particularly be the case in a challenging economic climate, such as during the ongoing COVID-19 pandemic. Coverage and reimbursement may impact the demand for, or the price of, any product candidate for which we obtain regulatory approval, and ultimately our ability to successfully commercialize any product candidate for which we obtain regulatory approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may only be temporary. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the U.S. Coverage and reimbursement policies for drug products can differ significantly from payor to payor as there is no uniform policy of coverage and reimbursement for drug products among third-party payors in the U.S. Third-party payors in the U.S. often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. There may be significant delays in obtaining coverage and reimbursement as the process of determining coverage and reimbursement is often time consuming and costly which will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage or adequate reimbursement will be obtained. It is difficult to predict at this time what government authorities and third-party payors will decide with respect to coverage and reimbursement for our drug products. Our inability to promptly obtain coverage and profitable reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Current and future legislation, including potentially unfavorable pricing regulations or other healthcare reform initiatives, may increase the difficulty and cost for us to obtain regulatory approval of and commercialize our product candidates and affect the prices we may obtain.

The regulations that govern, among other things, regulatory approvals, coverage, pricing and reimbursement for new drug products vary widely from country to country. In the U.S. and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay regulatory approval of our product candidates, restrict or regulate post-approval activities and affect our ability to successfully sell any product candidates for which we obtain regulatory approval. In particular, in March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively, the Affordable Care Act, was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers, and continues to significantly impact the U.S. pharmaceutical industry. The Affordable Care Act and its implementing regulations, among other things, addressed 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, increased the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program, extended the Medicaid Drug Rebate Program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations, subjected manufacturers to new annual fees and taxes for certain branded prescription drugs, provided incentives to programs that increase the federal government's comparative effectiveness research and established a new Medicare Part D coverage gap discount program.

Other legislative changes have been proposed and adopted in the U.S. since the Affordable Care Act was enacted. In August 2011, the Budget Control Act of 2011, among other things, created measures for spending reductions by the U.S. Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013, and, due to subsequent legislative amendments, will remain in effect through 2030 unless additional Congressional action is taken. COVID-19 relief legislation suspended the 2% Medicare sequester from May 1, 2020 through March 31, 2021, and extended the sequester by one year, through 2030. In January 2013, the American Taxpayer Relief Act of 2012 (the ATRA) was enacted which, among other things, further reduced Medicare payments to several providers, including hospitals and outpatient clinics, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

There remain judicial and Congressional challenges to numerous elements of the Affordable Care Act, as well as efforts by both the executive and legislative branches of the federal government to repeal or replace certain aspects of the Affordable Care Act. For example, President Trump signed Executive Orders designed to delay or eliminate the implementation of certain provisions of the Affordable Care Act or otherwise circumvent some of the requirements for health insurance mandated by the Affordable Care Act. In addition, the U.S. Congress has considered legislation that would repeal or repeal and replace all or part of the Affordable Care Act. While the U.S. Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the Affordable Care Act, such as removing penalties, starting January 1, 2019, for not complying with the Affordable Care Act's individual mandate to carry health insurance, eliminating the implementation of certain mandated fees, and increasing the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D. In December 2018, a Texas District Court Judge ruled that the Affordable Care Act is unconstitutional in its entirety because the "individual mandate" was repealed by Congress as part of legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act (the Tax Act). In December 2019, the U.S. Court of Appeals for the 5th Circuit upheld the Texas District Court ruling that the individual mandate was unconstitutional and remanded the case back to the Texas District Court to determine whether the remaining provisions of the Affordable Care Act are invalid as well. The United States Supreme Court is currently reviewing this case, but it is unknown when a decision will be reached. Although the United States Supreme Court has not yet ruled on the constitutionality of the Affordable Care Act, on January 28, 2021, President Biden issued an executive order to initiate a special enrollment period from February 15, 2021 through May 15, 2021 for purposes of obtaining health insurance coverage through the Affordable Care Act marketplace. The executive order also instructs certain governmental agencies to review and reconsider their existing policies and rules that limit access to healthcare, including among others, reexamining Medicaid demonstration projects and waiver programs that include work requirements, and policies that create unnecessary barriers to obtaining access to health insurance coverage through Medicaid or the Affordable Care Act. It is unclear how the United States Supreme Court ruling, other such litigation, and the healthcare form measures of the Biden administration will impact the Affordable Care Act and our business.

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. The continuing efforts of governments, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare, including by imposing price controls, may adversely affect the demand for our product candidates for which we obtain regulatory approval and our ability to set a price that we believe is fair for our products. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the U.S. or foreign regulations, guidance or interpretations will be changed, or what the impact of these changes on the regulatory approvals of our product candidates, if any, may be. In the U.S., the EU and other potentially significant markets for our product candidates, government authorities and third-party payors are increasingly attempting to limit or regulate the price of medical products and services, particularly for new and innovative products and therapies, which has resulted in lower average selling prices for certain products in certain markets. For example, in the U.S., there have been several recent Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. At the federal level, the Trump administration's budget proposal for the fiscal year 2021 included a $135 billion allowance to support legislative proposals seeking to reduce drug prices, increase competition, lower out-of-pocket drug costs for patients, and increase patient access to lower-cost generic and biosimilar drugs. In March 2020, the Trump administration sent "principles" for drug pricing to Congress, calling for legislation that would, among other things, cap Medicare Part D beneficiary out-of-pocket pharmacy expenses, provide an option to cap Medicare Part D beneficiary monthly out-of-pocket expenses, and place limits on pharmaceutical price increases. Additionally, in May 2018, the Trump administration previously laid out a "Blueprint" to lower drug prices and reduce out of pocket costs of drugs that contained additional proposals to increase manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products and reduce the out-of-pocket costs of drug products paid by consumers. On July 24, 2020 and September 13, 2020, the Trump administration announced several executive orders related to prescription drug pricing that attempt to implement several of the administration's proposals. On November 20, 2020, HHS finalized a regulation removing safe harbor protection for price reductions from pharmaceutical manufacturers to plan sponsors under Part D, either directly or through pharmacy benefit managers, unless the price reduction is required by law. The rule also creates a new safe harbor for price reductions reflected at the point-of-sale, as well as a safe harbor for certain fixed fee arrangements between pharmacy benefit managers and manufacturers. Further, on November 20, 2020, CMS issued an interim final rule implementing President Trump's Most Favored Nation executive order, which would tie Medicare Part B payments for certain physician-administered drugs to the lowest price paid in other economically advanced countries, effective January 1, 2021. On December 28, 2020, the U.S. District Court in Northern California issued a nationwide preliminary injunction against implementation of the interim final rule. However, it is unclear whether the Biden administration will work to reverse these measures or pursue similar policy initiatives. At the state level, legislatures have increasingly passed legislation and implemented

regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, to encourage importation from other countries and bulk purchasing. Furthermore, the increased emphasis on managed healthcare in the U.S. and on country and regional pricing and reimbursement controls in the EU will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our future product sales. These pressures can arise from rules and practices of managed care groups, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical reimbursement policies and pricing in general. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic.

In addition, there is significant uncertainty regarding the reimbursement status of newly approved healthcare products. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of our products. If third-party payors do not consider our products to be cost-effective compared to other therapies, the payors may not cover our products after approved as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

Price controls may be imposed in foreign markets, which may adversely affect our future profitability.

In some countries, particularly member states of the EU and the U.K., the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of regulatory approval for a product. In addition, there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various EU member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we, or our collaborators, may be required to conduct a clinical study or other studies that compare the cost-effectiveness of our product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be adversely affected.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

We face competition from numerous pharmaceutical and biotechnology enterprises, as well as from academic institutions, government agencies and private and public research institutions for our current product candidates. Our commercial opportunities will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we may develop. Additionally, our commercial opportunities will be reduced or eliminated if novel upstream products or changes in treatment protocols reduce the overall incidence or prevalence of our current or future target diseases. Competition could result in reduced sales and pricing pressure on our product candidates, if approved by applicable regulatory authorities. In addition, significant delays in the development of our product candidates could allow our competitors to bring products to market before us and impair any ability to commercialize our product candidates.

There are currently no FDA- or EMA-approved products for the treatment ofEBV+ PTLD. However, some marketed products and therapies are used off-label in the treatment of EBV+ PTLD, such as rituximab and combination chemotherapy regimens. In addition, a number of companies and academic institutions are developing product candidates for EBV+ PTLD and other EBV-driven diseases including: Viracta Therapeutics, Inc., which is conducting a Phase 1b/2 clinical study for nanatinostat (formerly named tractinostat, or VRx-3996) in combination with antiviral drug valganciclovir in relapsed/refractory EBV+ lymphomas; AlloVir (formerly known as ViraCyte), which has completed a Phase 2 clinical study for Viralym-M (ALVR105), an allogeneic, multi-virus T-cell product that targets six viruses in allogeneic HSCT recipients with ≥1 treatment-refractory infection, including EBV, has initiated a pivotal study for Virus-Associated Hemorrhagic-Cystitis, as well as a Phase 2 proof of concept trial for the prevention of BKV, CMV, AdV, EBV, HHV06 and JCV in post-allogeneic HSCT patients; and Tessa Therapeutics Pte Ltd., which has a Phase 2 autologous and Phase 1 allogeneic CD30-CAR-T product candidate being evaluated in CD30+ lymphomas.

Competition in the MS market is high with at least 20 therapies, including four generics or bioequivalents, approved in the U.S. and EU for the treatment of various forms of MS, including clinically isolated syndrome, relapsing-remitting MS (RRMS), secondary progressive MS (SPMS) and primary progressive MS (PPMS). There are many competitors in the MS market, including major multi-national fully-integrated pharmaceutical companies and established biotechnology companies. Most recently, Ponvory (S1P modulator), marketed by Johnson & Johnson, and Kesimpta® (anti-CD20 monoclonal antibody), marketed by Novartis, were approved in the U.S. and/or EU for the treatment of relapsing forms of MS.

There are numerous development candidates in Phase 3 studies for both relapsing and/or progressive forms of MS and additional novel agents could be approved in either or both indications in the future including TG Therapeutics' anti-CD20 monoclonal antibody ublituximab, EMD Serono's Bruton's tyrosine kinase (BTK) inhibitor, evobrutinib, Roche's BTK inhibitor, fenebrutinib, Sanofi's BTK inhibitor, SAR442168 and AB Science's tyrosine kinase inhibitor, masitinib.Medicinova is planning to initiate a Phase 3 study of its PDE inhibitor, ibudilast (MN166) in non-active SPMS.

There are currently five autologous CAR T therapies approved in the U.S. and/or EU: Novartis' Kymriah® (tisagenlecleucel), Gilead/Kite's Yescarta® (axicabtagene ciloleucel) and Tecartus™ (brexucabtagene autoleucel) and Bristol-Myers Squibb's Breyanzi® (lisocabtagene maraleucel) and Abecma (idecabtagene vicleucel) with bluebird bio. There are many CAR-mediated cell therapies in development, and, although the majority are autologous, they include allogeneic and off-the-shelf cell therapies. There are multiple allogeneic CAR platforms being developed with differences in approaches to minimize instances of donor cells recognizing the patient's body as foreign or rejection of the donor cells by the patient's body. These approaches include the use of gene-editing to remove or inhibit the TCR and the use of cell types without a TCR. The majority of clinical stage allogeneic CAR programs utilize alpha beta T cells as the cell type and gene editing of the T-cell receptor and HLA as the preferred technology approach, however, other strategies are also in development. It is possible that some of these other approaches will have more favorable characteristics than the approach we utilize, which would result in them being favored by potential partners or customers over our products. Depending on the diseases that we target in the future, we may face competition from both autologous and allogeneic CAR therapies and other modalities (e.g., small molecules, antibodies) in the indication of interest.

Many of the approved or commonly used drugs and therapies for our current or future target diseases, includingEBV+ PTLD and MS, are well established and are widely accepted by physicians, patients and third-party payors. Some of these drugs are branded and subject to patent protection, and other drugs and nutritional supplements are available on a generic basis. Insurers and other third-party payors may encourage the use of generic products or specific branded products. We expect that, if any of our product candidates are approved, they will be priced at a significant premium over competitive generic products. Absent differentiated and compelling clinical evidence, pricing premiums may impede the adoption of our products over currently approved or commonly used therapies, which may adversely impact our business. In addition, many companies are developing new therapeutics, and we cannot predict what the standard of care will become as our products continue in clinical development.

Many of our competitors or potential competitors have significantly greater established presence in the market, financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical studies, obtaining regulatory approvals and marketing approved products than we do, and as a result may have a competitive advantage over us. Smaller or early-stage companies may also prove to be significant competitors, including through collaborative arrangements with large and established companies or if they are acquired by larger companies. These third parties compete with us in recruiting and retaining qualified scientific, commercial and management personnel, establishing clinical study sites and patient registration for clinical studies, as well as in acquiring technologies and technology licenses complementary to our programs or advantageous to our business.

As a result of these factors, these competitors may obtain regulatory approval of their products before we are able to obtain patent protection or other intellectual property rights, which will limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are safer, more effective, more widely used and cheaper than ours, and may also be more successful than us in manufacturing and marketing their products. These appreciable advantages could render our product candidates obsolete or noncompetitive before we can recover the expenses of development and commercialization.

We expect the product candidates we develop will be regulated as biological products (biologics) and therefore they may be subject to competition sooner than anticipated.

The Biologics Price Competition and Innovation Act of 2009 (BPCIA) was enacted as part of the Affordable Care Act to establish an abbreviated pathway for the approval of biosimilar and interchangeable biological products. The regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an approved biologic. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the reference product was approved under a BLA. 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. While it is uncertain when processes intended to implement BPCIA may be fully adopted by the FDA, any of these processes could have a material adverse effect on the future commercial prospects for our biological products.

We believe that any of the product candidates we develop that is approved in the U.S. 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 the subject product candidates to be reference products for competing products, potentially creating the opportunity for generic competition sooner than anticipated. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of the 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.

In addition, the approval of a biologic product biosimilar to one of our products could have a material adverse impact on our business as it may be significantly less costly to bring to market and may be priced significantly lower than our products.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue from the sale of our products.

We are at an early stage of establishing an organization that will be responsible for the sale, marketing and distribution of pharmaceutical products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be approved by the FDA and comparable foreign regulatory authorities, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. There are significant risks involved in building and managing a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities, or entering into agreements with third parties to market and sell our products, would adversely impact the commercialization of these products. We may be competing with many companies that currently have extensive and well-funded sales and marketing operations. Without a sufficiently scaled, appropriately timed and trained internal commercial organization or the support of a third party to perform sales and marketing functions, we may be unable to compete successfully against these more established companies.

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

As of March 31, 2021, we had 480 employees. We have made the decision to grow the size of our organization in order to support our continued development and potential commercialization of our product candidates. In particular, we may need to add substantial numbers of additional personnel and other resources to support our development and potential commercialization of our product candidates. As our development and commercialization plans and strategies continue to develop, or as a result of any future acquisitions, our need for additional managerial, operational, manufacturing, sales, marketing, financial and other resources will increase. Our management, personnel and systems currently in place may not be adequate to support this future growth. Future growth would impose significant added responsibilities on members of management, including:

- managing our preclinical and clinical studies effectively;
- identifying, recruiting, maintaining, motivating and integrating additional employees, including the additional personnel needed to support continued development and potential commercialization of our product candidates;
- managing our internal development efforts effectively while complying with our contractual obligations to licensors, licensees, contractors and other third parties;
- improving our managerial, development, operational, information technology, and finance systems; and
- expanding our facilities.

As our operations expand, we will also need to manage additional relationships with various strategic partners, suppliers and other third parties. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and preclinical and clinical studies effectively and hire, train and integrate additional management, research and development, manufacturing, administrative and sales and marketing personnel. Our failure to accomplish any of these tasks could prevent us from successfully growing our company.

Risks Related to Ownership of Our Common Stock

Our stock price has been and will likely continue to be volatile and may decline regardless of our operating performance.

Our stock price has fluctuated in the past and can be expected to be volatile in the future. From January 1, 2019 through March 31, 2021, the reported sale price of our common stock has fluctuated between $4.52 and $41.97 per share. The stock market in general and the market for biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. In particular, the ongoing COVID-19 pandemic has further heightened the volatility of the stock market for biopharmaceutical companies. As a result of this volatility, investors may experience losses on their investment in our common stock. The market price of our common stock may be influenced by many factors, including the following:

- the success of competitive products or technologies;
- regulatory actions with respect to our product candidates or products or our competitors' product candidates or products;

- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- results of clinical studies of our product candidates or those of our competitors;
- regulatory or legal developments in the U.S. and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to in-license or acquire additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- inconsistent or unusual trading volume levels of our shares or derivatives thereof;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other risks described in this “Risk Factors” section.

In addition, the stock markets in general, and the markets for biotechnology and pharmaceutical stocks in particular, have experienced significant volatility that has often been unrelated to the operating performance of particular companies, including in connection with the ongoing COVID-19 pandemic, which has resulted in decreased stock prices for many companies. For example, negative publicity regarding drug pricing and price increases by pharmaceutical companies has negatively impacted, and may continue to negatively impact, the markets for biotechnology and pharmaceutical stocks. Likewise, as a result of significant changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing foreign trade and healthcare spending and delivery, including the possible repeal and/or replacement of all or portions of the Affordable Care Act or changes in tariffs and other restrictions on free trade stemming from U.S. and foreign government policies, or for other reasons, the financial markets could experience significant volatility that could also negatively impact the markets for biotechnology and pharmaceutical stocks. These market fluctuations may adversely affect the trading price of our common stock.

In the past, class action litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. Any such litigation brought against us could result in substantial costs and divert management’s attention and resources, which could result in delays of our clinical studies or commercialization efforts.

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

Our principal stockholders own a significant portion of our outstanding common stock. These stockholders may be able to determine the outcome of 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. The interests of our significant stockholders may not always coincide with the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. Moreover, certain holders of shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We have registered and intend to continue to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates.

We have incurred and will continue to incur increased costs as a result of being a public company and our management expects to devote substantial time to public company compliance programs.

As a public company, we have incurred and will continue to incur significant legal, accounting and other expenses. We are subject to the reporting requirements of the Exchange Act, which require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and The Nasdaq Stock Market to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC has adopted and will adopt additional rules and regulations, such as mandatory "say on pay" voting requirements, that now apply to us. Stockholder activism, the current political environment and the potential for future regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

The rules and regulations applicable to public companies have substantially increased our legal and financial compliance costs and make some activities more time-consuming and costly. To the extent these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition and results of operations. The increased costs will decrease our net income or increase our net loss and may require us to reduce costs in other areas of our business or increase the prices of our products or services.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be the sole source of potential gain for our stockholders.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for our stockholders for the foreseeable future.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell substantial amounts of common stock or securities convertible into or exchangeable for common stock in one or more transactions at prices and in a manner we determine from time to time. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding options or warrants, and any additional shares issued in connection with acquisitions or in-licenses, if any, may result in material dilution to our investors. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of our common stock. To the extent equity valuations, including the trading price of our common stock, are depressed as a result of economic disruptions and uncertainty concerning the COVID-19 pandemic or other factors, the potential magnitude of this dilution will increase. Pursuant to our equity incentive plans, our compensation committee is authorized to grant equity-based incentive awards to our employees, non-employee directors and consultants. Future grants of RSUs, options and other equity awards and issuances of common stock under our equity incentive plans will result in dilution and may have an adverse effect on the market price of our common stock.

Some terms of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders and may prevent attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation (Certificate of Incorporation) and amended and restated bylaws (Bylaws), as well as Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders, or remove our current management. These include terms that:

- permit our board of directors to issue up to 20,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that all vacancies on our board of directors, including as a result of newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- establish that our board of directors is divided into three classes, with each class serving three-year staggered terms, which makes it more difficult to replace a majority of our directors in a short period of time;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- not provide for cumulative voting rights, thereby allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election; and
- provide that special meetings of our stockholders may be called only by our board of directors, the chairperson of our board of directors or our chief executive officer.

Any of the factors listed above may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management.

In addition, because we are incorporated in Delaware, we are governed by Section 203 of the Delaware General Corporation Law, which may discourage, delay or prevent someone from acquiring us or merging with us whether or not it is desired by or beneficial to our stockholders. Under Delaware law, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Any term of our Certificate of Incorporation or Bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock and could also affect the price that some investors are willing to pay for our common stock.

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

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us and our business. In the event securities or industry analysts who cover us downgrade our stock or publish unfavorable research about us or our business, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

General Risk Factors

Our future success depends on our ability to retain our executive officers and to attract, retain and motivate qualified personnel.

We are highly dependent upon our executive officers and other key employees and the loss of the services of any of our executive officers or other key employees, including scientific, technical or management personnel, could impede the achievement of our corporate objectives.

Our success depends on our ability to recruit, retain,manage and motivate our employees. Although we enter into employment agreements or offer letters with our employees, these documents provide for "at-will" employment, which means that any of our employees could leave our employment at any time, with or without notice. Competition for skilled personnel in our industry and geographic regions is intense and may limit our ability to hire and retain qualified personnel on acceptable terms or at all. To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have provided equity awards that vest over time. The value to employees of equity awards may be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse, privacy and other laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, including physicians, and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain regulatory approval. Our current and future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we conduct research and would market, sell and distribute our products. As a biopharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. If we obtain FDA approval of any of our product candidates and begin commercializing those products in the United States, our potential exposure under such laws will increase significantly, and our costs associated with compliance with such laws are also likely to increase. These laws may impact, among other things, our current activities with principal investigators and research patients, as well as proposed and future sales, marketing and education programs. In addition, the approval and commercialization of any of our product candidates outside the United States will also likely subject us to foreign equivalents of the healthcare laws mentioned here, among other foreign laws. Restrictions under applicable federal and state healthcare laws and regulations that may affect our ability to operate include, but are not limited to, the following:

- the federal healthcare Anti-Kickback Statute, which governs our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities, by prohibiting, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, 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, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- federal civil and criminal false claims laws, including the civil False Claims Act, which can be enforced through civil whistleblower or qui tam actions, and civil monetary penalty laws impose criminal and civil penalties against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment or approval that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- HIPAA imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also created federal criminal laws that prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services;
- HIPAA, as amended by HITECH also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information held by covered entities and their business associates and their subcontractors that use, disclose or otherwise process individually identifiable health information;
- the federal physician sunshine requirements under the Affordable Care Act requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to CMS information related to payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and ownership and investment interests held by physicians and their immediate family members and applicable group purchasing organizations, which will be expanded beginning in 2022, to require applicable manufacturers to report such information regarding payments and other transfers of value to physician assistants, nurse practitioners, clinical nurse specialists, anesthesiologist assistants, certified registered nurse anesthetists and certified nurse midwives during the previous year;

- state and foreign laws and regulations that are analogous to the federal laws and regulations described in the preceding subsections of this risk factor, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; and
- some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government; some state laws require drug manufacturers to report information regarding pricing and marketing information related to payments and other transfers of value to physicians and other healthcare providers; some state and local laws require the registration of pharmaceutical sales representatives; and other state laws require the protection of the privacy and security of health information, which may differ from each other in significant ways and often are not preempted by HIPAA.

Additionally, we may be subject to state and foreign equivalents of each of the healthcare laws described above, among others, some of which may be broader in scope. Efforts to ensure that our business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations or case law involving applicable healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government-funded healthcare programs, such as Medicare and Medicaid, disgorgement, additional reporting requirements or oversight if we become subject to a corporate integrity agreement or similar agreement, and the curtailment or restructuring of our operations. If any physicians or other healthcare 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 significant criminal, civil or administrative sanctions, including exclusions from government-funded healthcare programs.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could cause significant liability for us and harm our reputation.

We are exposed to the risk of employee fraud or other misconduct, including intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, provide accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards we have established, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee 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 significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical studies and will face an even greater risk if we commercially sell any products that we may develop. Product liability claims may be brought against us by subjects enrolled in our clinical studies, patients, healthcare providers or others using, administering or selling our products. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- termination of clinical study sites or entire study programs;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical study participants;
- significant costs to defend the related litigation;
- substantial monetary awards to study subjects or patients;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize any products that we may develop.

We currently hold product liability insurance coverage at a level that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, but which may not be adequate to cover all liabilities that we may incur. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. We intend to expand our insurance coverage for products to include the sale of commercial products if we obtain regulatory approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products that receive regulatory approval. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

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

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

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials with a policy limit that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological or hazardous materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions, which could adversely affect our business, financial condition, results of operations and prospects.

The actual or perceived failure by us, our customers, or vendors to comply with increasingly stringent laws, regulations and contractual obligations relating to privacy, data protection, and data security could harm our reputation, and subject us to significant fines and liability.

We are or may become subject to numerous domestic and foreign laws and regulations regarding privacy, data protection, and data security, the scope of which is changing, subject to differing applications and interpretations and may be inconsistent among countries, or conflict with other rules. We are also subject to the terms of our contractual obligations to customers and third parties related to privacy, data protection, and data security. The actual or perceived failure by us, our customers, our vendors, or other relevant third parties to address or comply with these laws, regulations, and obligations could increase our compliance and operational costs, expose us to regulatory scrutiny, actions, fines and penalties, cause regulators to reject, limit or disrupt our clinical trial activities, result in reputational harm, lead to a loss of customers, reduce the use of our products, result in litigation and liability, and otherwise cause a material adverse effect on our business, financial condition, and results of operations.

For example, the EU adopted the General Data Protection Regulation (EU) 2016/679 (GDPR), which imposes onerous and comprehensive privacy, data protection, and data security obligations onto data controllers and processors, including, as applicable, contractual privacy, data protection, and data security commitments, expanded disclosures to data subjects about how their personal information is used, honoring individuals' data protection rights, limitations on retention of personal information, additional requirements pertaining to sensitive information (such as health data) and pseudonymized (i.e., key-coded) data, data breach notification requirements, higher standards for obtaining consent from data subjects, changes to informed consent practices, and more detailed notices for clinical trial subjects and investigators. Penalties for non-compliance with the GDPR can be significant and include fines in the amount of the greater of €20 million or four percent of global turnover and restrictions or prohibitions on data processing, which could impair our ability to do business in the EU, reduce demand for our services and adversely impact our business and results of operations. The GDPR also provides that EU member states may introduce further laws and regulations limiting the processing of genetic, biometric, or health data, which could limit our ability to collect, use and share European data, cause our compliance costs to increase, require us to change our practices, adversely impact our business, and harm our financial condition. Assisting our customers, partners, and vendors in complying with the GDPR, or complying with the GDPR ourselves, may cause us to incur substantial operational costs or require us to change our business practices.

European privacy, data protection, and data security laws, including the GDPR, generally restrict the transfer of personal information from theEuropean Economic Area (EEA) to the United States and most other countries unless the parties to the transfer have implemented specific safeguards to protect the transferred personal information. Data protection laws in the U.K. and Switzerland impose similar restrictions. There is uncertainty on how to implement such safeguards and how to conduct such transfers in compliance with the GDPR, and certain safeguards may not be available or applicable with respect to some or all of the personal information processing activities necessary to research, develop and market our products and services. One of the primary safeguards allowing U.S. companies to import personal information from Europe has been certification to the EU-U.S. Privacy Shield and Swiss-U.S. Privacy Shield frameworks. However, the EU-U.S. Privacy Shield framework was invalidated in July 2020 in a decision by the Court of Justice of the EU and the Swiss-U.S. Privacy Shield Framework was declared as inadequate by the Swiss Federal Data Protection and Information Commissioner. The decision by the Court of Justice and the announcement by the Swiss Commissioner both raised questions about whether one of the primary alternatives to the Privacy Shield frameworks, the European Commission's Standard Contractual Clauses, can lawfully be used for personal information transfers from Europe to the United States or most other countries. Authorities in the U.K. may similarly invalidate use of the EU-U.S. Privacy Shield and raise questions on the viability of the Standard Contractual Clauses. In November 2020, EU regulators proposed a new set of Standard Contractual Clauses, which impose additional obligations and requirements with respect to the transfer of EU personal data to other jurisdictions, which may increase the legal risks and liabilities under the GDPR and local EU laws associated with cross-border data transfers, and result in material increased compliance and operational costs. If we are unable to implement a valid solution for personal information transfers to the United States and other countries, we will face increased exposure to regulatory actions, substantial fines, and injunctions against processing or transferring personal information from Europe, and we may be required to increase our data processing capabilities in Europe at significant expense. Inability to import personal information from Europe to the United States or other countries may decrease demand for our products and services as our customers that are subject to the GDPR may seek alternatives that do not involve personal information transfers out of Europe. At present, there are few, if any, viable alternatives to the Privacy Shield and the Standard Contractual Clauses.

In addition, it is unclear whether the transfer of personal information from the EU to the U.K. will continue to remain lawful under the GDPR in light of Brexit. Pursuant to a post-Brexit trade deal between the U.K. and the EU, transfers of personal information from the EEA to the U.K. are not considered restricted transfers under the GDPR for a period of up to six months from January 1, 2021. However, unless the EU Commission makes an adequacy finding with respect to the U.K. before the end of that period, the U.K. will be considered a "third country" under the GDPR and transfers of European personal information to the U.K. will require an adequacy mechanism to render such transfers lawful under the GDPR. Additionally, although U.K. privacy, data protection and data security law is designed to be consistent with the GDPR, uncertainty remains regarding how data transfers to and from the U.K. will be regulated notwithstanding Brexit.

Other countries outside of Europe have enacted or are considering enacting similar cross-border data transfer restrictions and laws requiring local data residency, which could increase the cost and complexity of delivering our services and operating our business. For example, Brazil recently enacted the General Data Protection Law (Lei Geral de Proteção de Dados Pessoais or LGPD) (Law No. 13,709/2018), which broadly regulates the processing of personal information and imposes compliance obligations and penalties comparable to those of the GDPR.

Regulation of privacy, data protection and data security has also become more stringent in the United States. For example, the California Consumer Privacy Act (CCPA), which took effect on January 1, 2020, gives California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing, and receive detailed information about how their personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA may increase our compliance costs and potential liability. Some observers have noted that the CCPA could mark the beginning of a trend toward more stringent state privacy, data protection and data security legislation in the U.S., which could increase our potential liability and adversely affect our business. The CCPA will be expanded substantially on January 1, 2023, when the California Privacy Rights Act of 2020 (CPRA) becomes fully operative. The CPRA will, among other things, give California residents the ability to limit use of certain sensitive personal information, further restrict the use of cross-contextual advertising, establish restrictions on the retention of personal information, expand the types of data breaches subject to the CCPA's private right of action, provide for increased penalties for CPRA violations concerning California residents under the age of 16, and establish a new California Privacy Protection Agency to implement and enforce the new law.

Compliance with U.S. and foreign privacy, data protection, and data security laws and regulations could cause us to incur substantial costs or require us to change our business practices and compliance procedures in a manner adverse to our business. Moreover, complying with these various laws could require us to take on more onerous obligations in our contracts, restrict our ability to collect, use and disclose data, or in some cases, impact our ability to operate in certain jurisdictions. Failure to comply with U.S. and foreign privacy, data protection, and data security laws and regulations could result in government enforcement actions (which could include civil or criminal penalties), private litigation and/or adverse publicity and could negatively affect our operating results and business. Claims that we have violated individuals' privacy rights, failed to comply with privacy, data protection, and data security laws, or breached our contractual obligations, even if we are not found liable, could be expensive and time consuming to defend, could result in adverse publicity and could have a material adverse effect on our business, financial condition, and results of operations.

If our security measures are compromised, or our information technology systems or those of our vendors, and other relevant third parties fail or suffer security breaches, loss or leakage of data, and other disruptions, this could result in a material disruption of our services, compromise sensitive information related to our business, harm our reputation, trigger our breach notification obligations, prevent us from accessing critical information, and expose us to liability or other adverse effects to our business.

In the ordinary course of our business, we may collect, process, and store proprietary, confidential, and sensitive information, including personal information (including health information), intellectual property, trade secrets, and proprietary business information owned or controlled by ourselves or other parties. It is critical that we do so in a secure manner to maintain the confidentiality, integrity, and availability of such information. We face several risks relative to protecting this critical information, including loss of access risk, inappropriate use or disclosure, inappropriate modification, and the risk of our being unable to adequately monitor, audit and modify our controls over our critical information. This risk extends to the third-party service providers who handle elements of our operations.

We, our partners, our CROs, our CMOs, and other business vendors on which we rely depend on information technology and telecommunication systems for significant elements of our operations, including, for example, systems handling human resources, financial reporting and controls, regulatory compliance and other infrastructure operations. Notwithstanding the implementation of security measures, given the size and complexity of our information technology systems and those of our third-party vendors and other contractors and consultants, and the increasing amounts of proprietary, confidential and sensitive information that they maintain, such information technology systems are potentially vulnerable to breakdown, service interruptions, system malfunction, natural disasters, terrorism, war and telecommunication and electrical failures, as well as security breaches from inadvertent or intentional actions by our personnel, third-party vendors, contractors, consultants, business partners, and/or other third parties, or from cyber-attacks by malicious third parties (including the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering, and other means to affect service reliability and threaten the confidentiality, integrity, and availability of information), which may compromise our system infrastructure, or that of our third-party vendors and other contractors and consultants, or lead to data leakage. The risk of a security breach or disruption, particularly through accidental actions or omissions by trusted insiders, cyber-attacks or cyber intrusions, including by computer hackers, viruses, foreign governments, and cyber terrorists, has generally increased as the number, intensity, and sophistication of attempted attacks and intrusions from around the world have increased. Additionally, the increased usage of computers operated on home networks due to the shelter-in-place or similar restrictions related to the COVID-19 pandemic may make our systems more susceptible to security breaches. Although we take measures to protect sensitive data from unauthorized access, use or disclosure, our information technology and infrastructure may be vulnerable to attacks by hackers or viruses or breached due to personnel error, malfeasance, or other malicious or inadvertent disruptions. Any such breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, manipulated, publicly disclosed, lost, or stolen.

Failures or significant downtime of our information technology or telecommunication systems or those used by our third-party service providers could cause significant interruptions to our operations, including preventing us from conducting tests or research and development activities and preventing us from managing the administrative aspects of our business. For example, the loss of clinical study data from completed, ongoing or planned clinical studies could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, the further development of our product candidates could be delayed and our business could be otherwise adversely affected.

We may not be able to anticipate all types of security threats, and we may not be able to implement preventative measures effective against all such security threats. The techniques used by cyber criminals change frequently, may not be recognized until launched, and can originate from a wide variety of sources, including outside groups such as external service providers, organized crime affiliates, terrorist organizations, hostile foreign governments or agencies, or cybersecurity researchers. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or those of our third-party vendors and other contractors and consultants, or inappropriate disclosure of confidential or proprietary information, we could incur liability and reputational damage and the further development and commercialization of our products and services could be delayed.

The costs related to significant security breaches or disruptions could be material and could exceed the limits of the cybersecurity insurance we maintain, if any, against such risks. If the information technology systems of our third-party vendors and other contractors and consultants become subject to disruptions or security breaches, we may have insufficient recourse against such third parties and may have to expend significant resources to mitigate the impact of such an event, and to develop and implement protections to prevent future events of this nature from occurring.

We cannot assure you that our data protection efforts and our investment in information technology will prevent significant breakdowns, data leakages, breaches in our systems, or those of our third-party vendors and other contractors and consultants, or other cyber incidents that could have a material adverse effect upon our reputation, business, operations, or financial condition. For example, if such an event were to occur and cause interruptions in our operations, or those of our third-party vendors and other contractors and consultants, it could result in a material disruption of our programs and the development of our services and technologies could be delayed. Furthermore, significant disruptions of our internal information technology systems or those of our third-party vendors and

other contractors and consultants, or security breaches could result in the loss, misappropriation, and/or unauthorized access, use, or disclosure of, or the prevention of access to, confidential information (including trade secrets or other intellectual property, proprietary business information, and personal information), which could result in financial, legal, business, and reputational harm to us. For example, any such event that leads to unauthorized access, use, or disclosure of personal information, including personal information regarding our customers or employees, could harm our reputation directly, compel 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.

Although we take measures to protect sensitive data from unauthorized access, use or disclosure, our information technology and infrastructure may be vulnerable to attacks by hackers or viruses or breached due to personnel error, malfeasance, or other malicious or inadvertent disruptions. Any such breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, manipulated, publicly disclosed, lost, or stolen.

Any such access, breach, or other loss of information could result in legal claims or proceedings, liability under domestic or foreign privacy, data protection and data security laws such as HIPAA and HITECH, and penalties. Notice of certain security breaches must be made to affected individuals, the Secretary of HHS, and for extensive breaches, notice may need to be made to the media or state attorneys general. Such notice could harm our reputation and our ability to compete. Although we have implemented security measures, such data is currently accessible through multiple channels, and there is no guarantee we can protect our data from breach. Unauthorized access, loss or dissemination could also damage our reputation or disrupt our operations, including our ability to conduct our analyses, conduct research and development activities, collect, process and prepare company financial information, and manage the administrative aspects of our business.

Penalties for violations of these laws vary. For instance, penalties for failure to comply with a requirement of HIPAA and HITECH vary significantly, and include significant civil monetary penalties and, in certain circumstances, criminal penalties with fines up to $250,000 per violation and/or imprisonment. A person who knowingly obtains or discloses individually identifiable health information in violation of HIPAA may face a criminal penalty of up to $50,000 and up to one-year imprisonment. The criminal penalties increase if the wrongful conduct involves false pretenses or the intent to sell, transfer or use identifiable health information for commercial advantage, personal gain or malicious harm.

Further, various states, such as California and Massachusetts, have implemented similar privacy laws and regulations, such as the California Confidentiality of Medical Information Act, that impose restrictive requirements regulating the use and disclosure of health information and other personally identifiable information. These laws and regulations are not necessarily preempted by HIPAA, particularly if a state afford greater protection to individuals than HIPAA. Where state laws are more protective, we have to comply with the stricter provisions. In addition to fines and penalties imposed upon violators, some of these state laws also afford private rights of action to individuals who believe their personal information has been misused. California's patient privacy laws, for example, provide for penalties of up to $250,000 and permit injured parties to sue for damages. Similarly, the CCPA allows consumers a private right of action when certain personal information is subject to unauthorized access and exfiltration, theft or disclosure due to a business' failure to implement and maintain reasonable security procedures. The interplay of federal and state laws may be subject to varying interpretations by courts and government agencies, creating complex compliance issues for us and data we receive, use and share, potentially exposing us to additional expense, adverse publicity and liability. Further, as regulatory focus on privacy issues continues to increase and laws and regulations concerning the protection of personal information expand and become more complex, these potential risks to our business could intensify. Changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, for the treatment of genetic data, along with increased customer demands for enhanced data security infrastructure, could greatly increase our cost of providing our products, decrease demand for our products, reduce our revenues and/or subject us to additional liabilities.

Changes in tax laws or regulations that are applied adversely to us or our customers may have an adverse effect on our business, cash flows, financial condition or results of operations.

We are subject to income and non-income based taxes in the U.S. and various jurisdictions outside the U.S. Our business and financial condition could be adversely affected by changes in federal, state, local or international tax laws, changes in taxing jurisdictions' administrative interpretations, decisions, policies and positions, changes in accounting principles, applicability of withholding taxes, and changes to our business operations. For example, US legislations such as the Tax Act, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), and the American Rescue Act, made significant changes to the corporate tax rate, the potential realization of net deferred tax assets relating to our operations, taxation of foreign earnings, and deductibility of expenses, and could have a material impact on our financial position or results of operations.

Our ability to use net operating loss carryforwards and certain tax assets to offset future taxable income or taxes may be subject to certain limitations.

Our ability to use our net operating losses (NOLs) and certain other tax attributes to offset potential future taxable income and related income taxes that would otherwise be due is dependent upon our generation of future taxable income, and we cannot predict with certainty when, or whether, we will generate sufficient taxable income to use all of our NOLs.

As of December 31, 2020, we had significant U.S. federal and state NOLs due to prior period losses. Under the Tax Act, as modified by the CARES Act, federal NOLs incurred in tax years beginning after December 31, 2017 may be carried forward indefinitely, but the utilization of such federal NOLs arising in taxable years beginning after December 31, 2020 is limited to 80% of current year taxable income. The CARES Act temporarily suspends this 80% taxable income limitation, allowing an NOL carryforward to fully offset taxable income in tax years beginning before 2021. It is uncertain if, and to what extent, various states will conform to the Tax Act or the CARES Act.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended (the Code), our ability to utilize these NOLs and other tax attributes, such as federal tax credits, in any taxable year may be limited if we have experienced an "ownership change". Generally, a Section 382 ownership change occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation's stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a three-year testing period. Similar rules may apply under state tax laws. We completed a Section 382 study of transactions in our stock through December 31, 2020 and concluded that we have experienced ownership changes since inception that we believe under Section 382 of the Code will result in limitations on our ability to use certain pre-change NOLs and credits. In addition, we may experience subsequent ownership changes as a result of future equity offerings or other changes in the ownership of our stock, some of which are beyond our control. As a result, the amount of the NOLs and tax credit carryforwards presented in our financial statements could be limited and, in the case of NOLs generated in tax years beginning on or before December 31, 2017, may expire unused. Any such material limitation or expiration of our NOLs may harm our future operating results by effectively increasing our future tax obligations. Similar provisions of state tax law may also apply to limit the use of accumulated state tax attributes. Regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, may cause our existing NOLs to expire, decrease in value or otherwise be unavailable to offset future income tax liabilities.

Business disruptions could seriously harm our future revenues and financial condition and increase our costs and expenses.

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. Two of our corporate locations are located in California, an area prone to earthquakes and fires. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We rely on third-party manufacturers to produce our product candidates. Our ability to obtain clinical supplies of product candidates could be disrupted, if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption, including, for example, the ongoing COVID-19 pandemic.

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

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit No.	Description of Exhibit	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1	Amended and Restated Certificate of Incorporation of Atara Biotherapeutics, Inc.	S-1	333-196936	3.2	6/20/2014	
3.2	Amended and Restated Bylaws of Atara Biotherapeutics, Inc.	S-1	333-196936	3.4	6/20/2014	
10.1+	Research, Development and License Agreement, by and between Atara Biotherapeutics, Inc. and Bayer AG, dated December 4, 2020					X*
10.2	Lease Agreement between LA Region No. 2, LLC and Atara Biotherapeutics, Inc. dated March 17, 2021					X
10.3+	First Amended and Restated Exclusive License Agreement by and between Atara Biotherapeutics, Inc. and Memorial Sloan Kettering Cancer Center, dated March 22, 2021					X
31.1	Certification by Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification by Principal Financial and Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1(1)	Certifications of Chief Executive Officer and Principal Financial and Accounting Officer pursuant to 18 U.S.C Section 1350 as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002					X
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document					X
101.SCH	Inline XBRL Taxonomy Extension Schema Document					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X
104	The cover page from the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, formatted in Inline XBRL.					X

+ Portions of this exhibit have been omitted as being both (i) not material and (ii) the type of information that the registrant treats as private or confidential.

* Previously filed with Annual Report on Form 10-K on March 1, 2021; refiled here with corrected formatting.

(1) The certifications attached as Exhibit 32.1 accompany this Quarterly Report on Form 10-Q pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed "filed" by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, Atara Biotherapeutics, Inc. has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ATARA BIOTHERAPEUTICS, INC.

Date: May 4, 2021

By: /s/ Pascal Touchon
Pascal Touchon
President and Chief Executive Officer
(Duly Authorized Officer and Principal Executive Officer)

By: /s/ Utpal Koppikar
Utpal Koppikar
Chief Financial Officer
(Duly Authorized Officer and Principal Financial and Accounting Officer)

[[***]] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [[***]], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL, AND IS THE TYPE THAT THE REGISTRANT TREATS AS PRIVATE OR CONFIDENTIAL.

Exhibit 10.1

Execution Version

RESEARCH, DEVELOPMENT AND LICENSE AGREEMENT

This LICENSE AGREEMENT ("Agreement") is entered into as of December 4, 2020 (the "Effective Date") by and between:

Bayer AG ("Bayer"), a company organized under the Laws of Germany, whose office is situated at Müllerstraße 178, 13353 Berlin, Germany,

and

Atara Biotherapeutics, Inc.("Atara"), a company organized under the Laws of Delaware, whose office is situated at 611 Gateway Blvd, Suite 900, South San Francisco, CA 94080, U.S.A.

Bayer and Atara shall also each individually be referred to herein as a "Party", and shall be referred to collectively as the "Parties".

RECITALS

WHEREAS, Bayer is engaged in the development, commercialization and manufacture of pharmaceutical products;

WHEREAS, Atara owns - partly through ownership, partly through acquired license - certain patent rights, know how and other intellectual property relating to Licensed Cell Therapeutics (as hereinafter defined), and is developing the Licensed Cell Therapeutics for the treatment or prevention of cancer;

WHEREAS, Bayer desires to obtain from Atara, and Atara is willing to grant to Bayer, an exclusive license and, to the extent that it controls the intellectual property through acquired license, an exclusive sublicense under certain intellectual property rights Controlled by Atara to Develop, Commercialize and Manufacture the Licensed Cell Therapeutics in the Field in the Territory, on the terms and subject to the conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the recitals above and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties, intending to be legally bound, agree as follows:

ARTICLE 1
DEFINITIONS

For purposes of this Agreement, the terms defined in this section and used in this Agreement with a capital initial letter shall have the respective meanings set forth below.

1.1 "Acquired Affiliate", "Acquired Competing Products" and "Acquisition Date" each have the meaning as set forth in Section 15.4.1.

1.2 "Agreement" has the meaning set forth in the introductory paragraphs of this Agreement.

1.3 "Affiliate" means any business entity controlled by, controlling or under common control with a Party at the Effective Date or at any time during the term of this

Agreement and as long as such control remains. For the purpose of this definition, a business entity shall be deemed to "control" another business entity if it:

(i) owns directly or indirectly more than fifty percent (50%) of the outstanding voting securities, capital stock or other comparable equity or ownership interest of such business entity having the power to vote on or direct the affairs of such business entity, as applicable (or such lesser percentage which is the maximum allowed to be owned by a foreign corporation in a particular jurisdiction), or

(ii) possesses, directly or indirectly, the power to direct or cause the direction of the policies and management of such business entity, as applicable, whether by the ownership of stock, by contract or otherwise.

1.4 "Alliance Manager" has the meaning set forth in Section 3.6.2 below.

1.5 "Anti-Corruption Laws" means the United States Foreign Corrupt Practices Act, the United Kingdom Bribery Act, and any other Laws of a similar nature for the prevention of fraud, corruption, racketeering, money laundering and terrorism, in each case as they may be amended from time to time.

1.6 "ATA2271" means the autologous CAR-T product comprising an m912 scFv binder, a 1XX signaling domain and a co-expressed PD1-DNR element that is the subject of the Phase 1 Clinical Trial having ClinicalTrials.gov identifier NCT04577326.

1.7 "ATA2271 Phase 1 Clinical Trial " means the Phase 1, first in human clinical research program relating to ATA2271 for the treatment of mesothelioma (ClinicalTrials.gov identifier NCT04577326) in the manner outlined within the ATA2271 Plan.

1.8 "ATA2271 Plan " means the plan attached to this Agreement as Exhibit 1.8, which sets forth the activities for the development of ATA2271, including the ATA2271 Phase 1 Clinical Trial [[***]], as such plan may be amended by the JSC in accordance with Section 3.6.3.2(vi).

1.9 "ATA3271" means Atara's allogeneic version of the ATA2271 CAR-T product based on Atara's proprietary technology entailing the use of T cells activated against EBV.

1.10 "Atara" has the meaning set forth in the introductory paragraphs of this Agreement.

1.11 "Atara Indemnified Parties" has the meaning set forth in Section 16.1 below.

1.12 "Atara Cell Therapeutic" means ATA2271, ATA3271 [[***]].

1.13 "Atara FTE Rate" means the annual rate of [[***]] per FTE employed or contracted by Atara or any of its Affiliates based upon the fully burdened cost of such personnel, such amount to be adjusted as of [[***]] of each following Calendar Year, by the percentage increase or decrease, if any, in the Consumer Price Index (Urban Wage Earners and Clerical Workers, U.S. City Average, All Items, 1982-1984 = 100, published by the United States Department of Labor, Bureau of Statistics, or its successor equivalent index) through [[***]] of the prior year.

1.14 "Atara Results" means any Collaboration Results solely made by Atara's employees, agents, representatives or contractors, in each case in the course of or as a result of the performance of the Collaboration Activities. For clarity, "Atara Results" includes any and all data generated by MSK for ATA2271.

1.15 "Bayer" has the meaning set forth in the introductory paragraphs of this Agreement.

1.16 "Bayer Background Improvement" means any Results that are solely related to the Bayer Background Technology and not specific to the Collaboration Activities.

1.17 "Bayer Background Technology" means any Know How, Patent Right or other intellectual property right that is both (a) Controlled by Bayer (i) as of the Effective Date or (ii) during the Collaboration Term and generated outside the performance of the Collaboration Activities; and (b) is used by Bayer, or provided by Bayer to Atara for use, in the performance of the Collaboration Activities.

1.18 "Bayer FTE Rate" means the annual rate of [[***]] per FTE employed or contracted by Bayer or any of its Affiliates based upon the fully burdened cost of such personnel, such amount to be adjusted as of [[***]] of each following Calendar Year, by the percentage increase or decrease, if any, in the price index for German F&E personnel within the pharmaceutical industry, as published in the annual publication "Chemiewirtschaft in Zahlen" edited by Verband der Chemischen Industrie e.V. of the previous year.

1.19 "Bayer Improvement IP" has the meaning set forth in Section 11.2.2.4.

1.20 "Bayer Indemnified Parties" has the meaning set forth in Section 16.2 below.

1.21 "Bayer Marks" means any proprietary name, logotype, trade dress or other Marks of Bayer or any of its Affiliates and any Product Marks (including any Mark that includes the name "Bayer" or the "Bayer Cross").

1.22 "Bayer Party" means Bayer, its Sublicensee(s) and any of Bayer's or its Sublicensee's Affiliates.

1.23 "Bayer Results" means any Collaboration Results solely made by Bayer's employees, agents, representatives or contractors.

1.24 "Biosimilar Product" means, on a country-by-country basis, with respect to a Licensed Product being sold in any country, a product that (a) contains the same or substantially the same active cellular agent irrespective of its form as such Licensed Product regardless of the dosage and formulation of such product; (b) obtained Regulatory Approval by means of an Abbreviated New Drug Application filing or another procedure for establishing equivalence to such Licensed Product that does not require clinical testing (other than a bioequivalence or substantially similar study); and (c) is legally marketed in such country by an entity other than a Bayer Party.

1.25 "BioVec" means BioVec Pharma, Inc., with a place of business located at 1202 rue du Capitaine Bernier, Quebec, QC, Canada.

1.26 "BioVec Upstream License" means the License Agreement between Atara and BioVec Pharma, Inc., dated October 7, 2020.

1.27 "BLA" means with respect to a Licensed Product, a filing serving to apply for Regulatory Approval including, in the United States, a Biologics License Application (as defined in the FDC Act and the regulations promulgated thereunder (21 CFR 600 et seq)), in the European Union, a Marketing Approval Application (MAA), or, in any other jurisdiction, a comparable filing, and, in each case, any amendments and supplements thereto.

1.28 "Business Day" means a day other than a Saturday, Sunday or any day on which commercial banks located in (i) San Francisco, California, U.S.A., (ii) Berlin, Germany or (iii) Leverkusen, Germany are authorized or obligated by law to be closed.

1.29 "Calendar Year" means a period of twelve (12) consecutive months corresponding to the calendar year commencing on the first day of January and ending on the last day of December.

1.30 "CAR" means [[***]].

1.31 "CAR-T(s)" means [[***]].

1.32 "cGCP" means regulations and published guidelines related to current good clinical practices that relate to the conduct of clinical studies in humans including the regulations set forth in 21 CFR 50, 54, 56, 312 and 314 promulgated by the FDA, the ICH Harmonised Tripartite Guideline for Good Clinical Practice and similar standards, guidelines and regulations promulgated or otherwise required by other Regulatory Authorities, in each case, as they may be amended from time to time.

1.33 "cGLP" means regulations and published guidelines related to current good laboratory practices that relate to the conduct of preclinical studies in animals including the regulations set forth in 21 CFR 58 promulgated by the FDA and similar standards, guidelines and regulations promulgated or otherwise required by other Regulatory Authorities, in each case, as they may be amended from time to time.

1.34 "cGMP" means regulations and published guidelines related to current good manufacturing practices that relate to the testing, manufacturing, processing, packaging, holding or distribution of drug or biologic drug substances and finished drugs or biologics including the regulations set forth in 21 CFR 210 and 211 promulgated by the FDA and similar standards, guidelines and regulations promulgated or otherwise required by other Regulatory Authorities, in each case, as they may be amended from time to time.

1.35 "Change of Control" means with respect to a Party:

(i) that a majority of the outstanding voting securities of such Party become beneficially owned directly or indirectly by any Third Party (or group of Third Parties acting in concert) that did not own a majority of the voting securities of such Party as of the Effective Date;

(ii) that the possession of the power to direct or cause the direction of the management and policies of such Party, whether through ownership of the outstanding voting securities or by contract or otherwise, becomes vested in one or more individuals or entities that did not possess such power as of the Effective Date;

(iii) that such Party consolidates with or merges into another corporation or entity, or any corporation or entity consolidates with or merges into such Party, in either event pursuant to a transaction in which more than fifty percent (50%) of the total voting power of the securities outstanding of the surviving entity normally entitled to vote in elections of directors is not held by the individuals or entities holding at least fifty percent (50%) of the outstanding securities of such entity preceding such consolidation or merger; or

(iv) such Party conveys, transfers or leases all or substantially all of the assets of such Party to which the subject matter of this Agreement relates to any Third Party.

1.36 "Clinical Trials" means Phase 1 Clinical Trials, Phase 2 Clinical Trials and / or Phase 3 Clinical Trials.

1.37 "CMC Activities" means the activities specified in Section 3.1.2.

1.38 "CMC Plan" means the plan attached to this Agreement as Exhibit 1.38 [[***]] as such plan may be amended by both Parties in accordance with Section 3.5.

1.39 "Collaboration Activities" means each of (a) the Research Activities and (b) the CMC Activities.

1.40 "Collaboration Plan(s)" means the Research Plan and the CMC Plan.

1.41 "Collaboration Results" means any and all Results except for the Bayer Background Improvements.

1.42 "Collaboration Term" means, with respect to each of (a) the Research Activities and (b) the CMC Activities, the period for the performance of such Collaboration Activities, as set forth in the relevant Collaboration Plan.

1.43 "Combination Licensed Product" means a product for use in the Field sold in a single stock keeping unit (SKU) for a single selling price, wherein such product utilizes, contains, incorporates or is made through the use of one or more Licensed Cell Therapeutic(s) or Licensed Product(s) in combination with one or more other products, components or ingredients including compounds, that are not Licensed Cell Therapeutics or Licensed Products, and are not required for the independent function of the included Licensed Cell Therapeutic(s) or Licensed Product(s). For clarity, a Combination Licensed Product shall constitute a Licensed Product, when that defined term is used herein, provided that [[***]].

1.44 "Commercialize" or "Commercialization" means all activities undertaken relating to use for commercial purposes, [[***]].

1.45 "Commercially Reasonable Efforts" means [[***]].

1.46 "Company Core Data Sheet" means the global reference labeling document used to direct the content of country-specific labeling for Licensed Products.

1.47 "Competing Product" means [[***]].

1.48 "Complete Invention Disclosure" means a description of the invention which shall include, in reasonable detail, a description of (i) database searches on state of the art undertaken; (ii) relevant prior art references found including an assessment of their relevance to the invention, (iii) the technical problem underlying the invention, (iv) the solution to this problem, (v) the technical, economic and commercial advantages of the solution particularly as compared to prior solutions to, and / or attempts to solve the problem (vi) the names and private addresses of the inventors, (vii) the individual contribution of each inventor to the invention, (viii) examples, all materials and methods used in connection with performing the invention, (ix) any and all sources of funding for the work done on the invention, (x) the date, if any, the invention was first

publicly disclosed, (xi) any publications discussing or describing the invention; and (xi) any encumbrance related to the invention.

1.49 "Confidential Information" has the meaning set forth in Section 12.1.1 below.

1.50 "Control" means, with respect to any Patent Rights or Know How and subject to the second sentence of this Section 1.50, the ownership or possession by a Party of the right, power and authority to license or sublicense such Patent Rights or Know How, as applicable, on the terms and conditions set forth in this Agreement, without violating the terms of any then-existing agreement with any Third Party. In the event a Party enters into a transaction or series of transactions with a Third Party acquiror that constitutes a Change of Control of such Party, in no event shall any Know How or Patent Rights that

(i) were immediately prior to the consummation of such Change of Control controlled by the Third Party acquiror or its affiliates, or

(ii) [[***]],

be deemed "Controlled" by the acquired Party (or such Party's other Affiliates) for purposes of this Section 1.50 or otherwise be included in any of the licenses or covenants granted or made under this Agreement by the acquired Party (or such Party's other Affiliates); [[***]].

1.51 "Derivative Cell Therapeutic" means any cell therapeutic [[***]].

1.52 "Develop" or "Development" means to engage in research and development activities (including preclinical studies, translational studies, Clinical Trials, CMC development and regulatory activities).

1.53 "Disclosing Party" has the meaning set forth in Section 12.1.1 below.

1.54 "EBV" means Epstein-Barr Virus.

1.55 "Effective Date" has the meaning set forth in the introductory paragraphs of this Agreement.

1.56 "EMA" means the European Medicines Agency or any successor agency thereto.

1.57 "Exclusive Technology" means all Licensed Technology other than the Non-Exclusive Technology.

1.58 "Executive Sponsor" means, (a) with respect to Atara, [[***]], and (b) with respect to Bayer,[[***]], in each case (a) and (b), or such other person designated by one Party to the other Party in writing from time to time.

1.59 "Existing Agreement(s)" means those agreements listed in Exhibit 1.59 hereto.

1.60 "Exploit" or "Exploitation" means to use, Develop, have Developed, Commercialize, have Commercialized, Manufacture and have Manufactured.

1.61 "FDA" means the United States Food and Drug Administration or any successor agency thereto.

1.62 "FDC Act" means the United States Food, Drug and Cosmetic Act, as amended from time to time, and regulations promulgated thereunder.

1.63 "Field" means[[***]].

1.64 "Field Infringement" has the meaning set forth in Section 11.7.1.

1.65 "Final Bayer Offer" has the meaning as set forth in Section 2.5.2.6.

1.66 "Final Third Party Offer Notice" has the meaning as set forth in Section 2.5.2.5.

1.67 "First Commercial Sale" means, on a country-by-country basis, the first invoiced sale of Licensed Product by a Bayer Party to a Third Party after grant of a Regulatory Approval in the applicable country or jurisdiction[[***]].

1.68 "Force Majeure" has the meaning as set forth in Section 19.1 below.

1.69 "FTE" means, with respect to a Party, the equivalent of a full-time employee employed or contracted by such Party to the performance of research, development, or other activities under this Agreement based upon a total of [[***]] per year of research, development, or other work. For clarity, the Parties intend the FTE to be a unit of measurement used to calculate the amount of time dedicated to the performance of this Agreement by a Party. One FTE may constitute work performed by an individual whose time is dedicated solely to this Agreement (but, for clarity, under no circumstances may more than one (1) FTE per year be allocated to one and the same individual) or may comprise the efforts of several individuals, each of whom dedicates only part of his or her time to work under this Agreement.

1.70 "Improvements" mean any invention, discovery, development or modification, whether or not patentable, that (a) is made with respect to a Licensed Cell Therapeutic or Licensed Product, or the Development, Commercialization or Manufacturing thereof, (b) is conceived, reduced to practice, discovered, or developed at any time during the term of this Agreement, and (c) is reasonably useful for the Exploitation of such Licensed Cell Therapeutic or Licensed Product, including any enhancement in the efficiency, operation, manufacture, cost of manufacture, ingredients, preparation, presentation, formulation, means of delivery or dosage, use, or methods of use or packaging of such Licensed Cell Therapeutic or Licensed Product, any discovery or development of any new or expanded indications for such Licensed Cell Therapeutic or Licensed Product, any discovery or development that improves the stability, safety or efficacy of such Licensed Cell Therapeutic or Licensed Product or would, if Commercialized, replace or displace such Licensed Cell Therapeutic or Licensed Product for the indication for which such Licensed Cell Therapeutic or Licensed Product has received Regulatory Approval or for which Bayer is seeking Marketing Approval in the Field.

1.71 "IND" means a filing with a Regulatory Authority that must be made prior to commencing clinical testing in humans including, (a) in the United States, an Investigational New Drug application (as defined in the FDC Act and the regulations promulgated thereunder (21 CFR 312.1 et seq)), (b) in the European Union, a Clinical Trial Application (CTA), or (c) in any other jurisdiction, a comparable filing and, in each case (a) through (c), any amendments and supplements thereto.

1.72 "IND Readiness" means [[***]].

1.73 "Indemnified Party" has the meaning set forth in Section 16.3.1 below.

1.74 "Indemnifying Party" has the meaning set forth in Section 16.3.1 below.

1.75 "Invention" has the meaning set forth in Section 11.3 below.

1.76 "Joint Invention" means any Invention within the Collaboration Results made jointly by one or more employees, officers, directors, consultants or directors of Atara and by one or more employees, officers, directors, consultants or directors of a Bayer Party.

1.77 "Joint Results Patent" means any Patent Right filed, sought or obtained covering Joint Inventions.

1.78 "Joint Results" means any Collaboration Results generated jointly by one or more employees, officers, directors, consultants or directors of Atara and by one or more employees, officers, directors, consultants or directors of a Bayer Party.

1.79 "Joint Steering Committee" or "JSC" has the meaning set forth in Section 3.6.3 below.

1.80 "Know How" means all intellectual property (other than Patent Rights), including all proprietary and confidential commercial, technical, scientific and other information, inventions (whether patentable or not), trade secrets, knowledge, technology, methods, processes, practices, formulae, instructions, skills, techniques, procedures, experiences, ideas, technical assistance, designs, drawings, assembly procedures, computer programs, specifications, data and results (including biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, pre-clinical, clinical, safety, manufacturing and quality control data and know how, including study designs and protocols), in all cases whether in written, electronic or any other tangible or non-tangible form, including information related to materials, samples, assays, compounds, compositions or formulations. [[***]].

1.81 "Knowledge" means, with respect to a Party, [[***]].

1.82 "Laws" means all applicable laws (including Anti-Corruption Laws), statutes, rules, regulations (including cGCP, cGLP and cGMP), orders, judgments and / or ordinances of any Regulatory Authority, governmental authority or court or any subpoena of a competent court having effect from time to time in the Territory.

1.83 "Licensed Cell Therapeutic" means any Atara Cell Therapeutic or Derivative Cell Therapeutic.

1.84 "Licensed Know How" means any Know How relating to Atara Cell Therapeutic(s) and / or Licensed Product(s) comprising an Atara Cell Therapeutic [[***]] for the development, manufacture and / or commercialization of Licensed Products comprising an Atara Cell Therapeutic, which are owned by or otherwise under the Control of Atara as of the Effective Date or at any time during the term of this Agreement until (i) [[***]] and (ii) [[***]]. Licensed Know How includes the Know How listed in Exhibit 1.84, but excludes (a) Know How only Controlled through the MOFFITT Upstream Licenses and (b) New Technology.

1.85 "Licensed Patent Rights" means any of the following:

(i) the Patent Rights listed in Exhibit 1.85 hereto;

(ii) any other Patent Rights Controlled by Atara or any of its Affiliates as of the Effective Date or at any time during the term of this Agreement, that cover the Atara Cell Therapeutic(s) and / or Licensed Product(s) comprising an Atara Cell Therapeutic, including the development, manufacture and / or commercialization thereof, but excluding (a) Patent Rights only Controlled

through the MOFFITT Upstream Licenses and (b) Patent Rights constituting New Technology; and

(iii) any Patent Right Controlled by Atara or any of its Affiliates belonging to the same patent family of the Patent Rights included in clauses (i) and (ii), whether existing at the Effective Date or thereafter, including any Patent Rights filed from or claiming the same priority of the Patent Rights included in clauses (i) and (ii) in any country or region of the Territory.

1.86 "Licensed Product" means any product in the Field in the Territory comprising a Licensed Cell Therapeutic (alone or with other ingredients) and covered by at least one (1) Valid, Practiced Claim of any Licensed Patents or directly generated with the use of Licensed Know How.

One Licensed Product, as opposed to another Licensed Product, shall be defined as follows:

(i) any (a) modifications or improvements in the [[***]], and / or (b) modifications or improvements of [[***]] shall be deemed only variations of the same Licensed Product [[***]]; whereas

(ii) any Licensed Product containing a cell that has been reengineered to [[***]], [[***]] shall be deemed another Licensed Product [[***]].

1.87 "Licensed Technology" means the Licensed Patent Rights and Licensed Know How.

1.88 "Losses" has the meaning set forth in Section 16.1 below.

1.89 "Major Markets" means [[***]].

1.90 "Mandatory Public Communication" means a Public Communication which is required by Laws, Securities Exchange Rules or a Regulatory Authority's valid request.

1.91 "Manufacture" and "Manufacturing" means all operations required to manufacture, test, release, handle, package, store and destroy a product, including formulation and process development, all subsequent packaging and labeling activities, and quality control and other testing.

1.92 "Mark" means any word, name, symbol, color, designation or device or any combination thereof for use in the course of trade, including all trademarks, service marks, brand mark, logos, slogans, trade dress, logos, slogans, designs, brand names, trade names, business symbols, domain names and all other indicia of origin, together with all translations, adaptations, derivations, and combinations thereof, and all registrations, applications for registration thereof and social media handles associated therewith, together with any extensions and renewals thereof and all goodwill associated therewith.

1.93 "Materials" has the meaning set forth in Section 2.6.1 below.

1.94 "Mesothelin" means [[***]].

1.95 "MOFFITT" means H.Lee Moffitt Cancer Center and Research Institute, Inc. with a place of business located at 12902 Magnolia Drive, Tampa, Florida 33612, U.S.A.

1.96 "MOFFITT Option Period" has the meaning set forth in Section 2.5.1.

1.97 "MOFFITT Upstream Licenses" means the licenses granted by MOFFITT to Atara as of the Effective Date under the agreements listed in Exhibit 1.97, as may be amended from time to time. [[***]].

1.98 "MSK" means Memorial Sloan Kettering Cancer Center with a place of business located at 1275 York Avenue, New York, New York 10065, U.S.A.

1.99 "MSK CAR-T License" means the agreement specified under (i) of Exhibit 1.102 ("MSK Upstream Licenses).

1.100 "MSK MSLN License" means the agreement specified under (iv) of Exhibit 1.102 ("MSK Upstream Licenses"), as amended.

1.101 "MSK PD1-DNR License" means the agreement specified under (v) of Exhibit 1.102 ("MSK Upstream Licenses").

1.102 "MSK Upstream Licenses" means the licenses granted by MSK to Atara under the agreements listed in Exhibit 1.102, as may be amended from time to time. [[***]].

1.103 "Net Sales" shall mean the gross amount [[***]] for sales of a Licensed Product (or Combination Licensed Product) to Third Parties, less the following deductions:

(i) Taxes (including sales, value-added, consumption and similar taxes), duties and other governmental charges actually incurred paid or collected and remitted to the relevant tax or other authority for the sale, export, import, transfer or use of Licensed Products;

(ii) credits, reserves or allowances granted for (a) damaged, outdated, returned, rejected, withdrawn or recalled Licensed Product, (b) wastage replacement and short-shipments; (c) billing errors and (d) indigent patient and similar programs (e.g., price capitation);

(iii) cash, trade, volume, and prompt payment discounts actually granted and deducted solely on account of sales of Licensed Products (or Combination Products);

(iv) rebates actually paid to individual or group purchasers of Licensed Products that are solely on account of the purchase of such Licensed Products;

(v) rebates, fees, discounts or other charges paid as required by government or public healthcare legislation granted to governmental healthcare organizations, purchasing groups, wholesalers, distributors, selling agents (excluding any sales representatives of a selling party), group purchasing organizations, Third Party payors, other contractees and managed care entities;

(vi) retroactive price reductions actually granted to the Third Party applicable to sales of the Licensed Product;

(vii) [[***]] percent [[***]] lump sum of the gross amount invoiced to cover transportation, freight, distribution and shipping (including insurance), packaging and handling expenses; and

(viii) [[***]] percent [[***]] lump sum of the gross amount invoiced to cover uncollectible amounts accrued, with respect to the sale of Licensed Products.

Gross sales of Licensed Products shall be deemed to have been made on [[***]] in accordance with their standard accounting procedures. For clarity, Net Sales shall include [[***]].

All deductions from gross sales except those defined above as [[***]] may be made on an accrual basis. For the avoidance of doubt, any provision release after the end of the Royalty Term shall be royalty bearing.

For the purpose of calculating Net Sales, the Parties recognize that: (a) customers may include [[***]]; and (b) in such cases, [[***]] can be deducted from the total gross amount invoiced in order to calculate Net Sales.

In the event that a Licensed Product is sold in the form of a Combination Licensed Product, then, for the purpose of calculating royalties due, Net Sales will be adjusted by multiplying by the fraction A/(A+B) where A is the gross per unit invoice price of the Licensed Product, if sold separately, and B is the gross per unit invoice price of any other active ingredient(s) in the combination, if sold separately.

If, on a country-by-country basis, the other active ingredient(s) in the combination are not sold separately in that country, Net Sales will be adjusted by multiplying by the fraction A/C where A is the gross per unit invoice price of the Licensed Product, if sold separately, and C is the gross per unit invoice price of the Combination Licensed Product. In each case, the gross per unit invoice price shall be those applicable during the relevant Quarter or, if sales of both the Licensed Product and the other product(s) did not occur in such Quarter, then in the most recent Quarter in which sales of both occurred. If, on a country-by-country basis, neither the Licensed Product nor the other active ingredient(s) of the Combination Licensed Product are sold separately in such country, then the fraction by which the Net Sales value shall be multiplied shall be determined between the Parties in good faith.

1.104 "New Technology" means Patent Rights and Know How that are [[***]] for the Exploitation of the Licensed Cell Therapeutics or the Licensed Products and come into Atara's Control through upstream licenses agreed after the Effective Date with licensors other than MSK and NIH.

1.105 "New Technology Offer" has the meaning set forth in Section 2.3.

1.106 "NIH" means the National Institutes of Health, which is the agency of the United States of America (U.S.A.) Public Health Service (PHS) within the Department of Health and Human Services (HHS) of the U.S.A.

1.107 "NIH Benchmarks" has the meaning set forth in Section 4.4.2.

1.108 "NIH Upstream License" means the licenses granted by NIH to Atara under the patent license agreement effective December 18, 2018, as amended by Amendment No. 1 effective December 1, 2020, and as may be further amended from time to time. For clarity, Atara may not agree to an amendment of the NIH Upstream License other than in accordance with Atara's covenants and other obligations under this Agreement (subject in all cases to NIH's unilateral right to amend pursuant to the terms of the NIH Upstream License).

1.109 "Non-Exclusive Technology" means (a) those Patent Rights and Know How constituting the Licensed Patent Rights and Licensed Know How in-licensed by Atara pursuant to the [[***]]; for clarity, Non-Exclusive Technology excludes Collaboration Results (as such term is defined in [[***]]) relating to manufacturing processes,

methods or assays specific to Licensed Products, which are exclusively licensed by [[***]] to Atara; and (b) those Patent Rights and Know How constituting the Licensed Patent Rights and Licensed Know How in-licensed by Atara pursuant to [[***]] for which, as of the Effective Date, [[***]] has granted to Atara a non-exclusive, sublicensable license.

1.110 "Objection Notice" has the meaning as set forth in Section 2.5.2.5.

1.111 "Other CAR-T" means [[***]].

1.112 "Party" or "Parties" has the meaning set forth in the introductory paragraphs of this Agreement.

1.113 "Patent Challenge" has the meaning set forth in Section 18.2.3.

1.114 "Patent Rights" mean:

(i) all national, regional and international patents, patent applications, utility models, design patents and design rights filed in any country of the world including provisional patent applications;

(ii) all patents, patent applications, utility models, design patents and design rights filed either from such patents, patent applications, utility models, design patents, design rights or provisional patent applications or claiming priority from either of these, including any continuation, continuation-in part, division, provisional, converted provisional and continued prosecution applications, or any substitute application;

(iii) any patent issued with respect to or in the future issued from any such patent applications;

(iv) any and all extensions or restorations by existing or future extension or restoration mechanisms, including reissues, re-examinations, and extensions (including any supplementary protection certificates and the like) of the foregoing patents, patent applications, utility models, design patents and design rights; and

(v) any foreign counterparts of the foregoing.

1.115 "Payment Date" has the meaning set forth in Section 9.6.2 below.

1.116 "Phase 1 Clinical Trial" means a human clinical trial of a Licensed Cell Therapeutic, the principal purpose of which is to determine initial tolerance or safety of such Licensed Cell Therapeutic in the target patient population, including, in the United States, a human clinical trial as described in 21 CFR 312.21(a), or, in a country other than the United States, a similar clinical study prescribed by the applicable Regulatory Authority.

1.117 "Phase 2 Clinical Trial" means a human clinical trial of a Licensed Cell Therapeutic, the principal purpose of which is to evaluate the effectiveness of such Licensed Cell Therapeutic in the target patient population, including, in the United States, a human clinical trial as described in 21 CFR 312.21(b), or, in a country other than the United States, a similar clinical study prescribed by the applicable Regulatory Authority.

1.118 "Phase 3 Clinical Trial" means a human clinical trial of a Licensed Cell Therapeutic, on a sufficient number of subjects that is designed to form the basis for the BLA for Regulatory Approval of the Licensed Cell Therapeutic including, in the United States, a human clinical trial as described in 21 CFR 312.21(c), or, in a country other than the United States, a similar clinical trial prescribed by the applicable Regulatory Authority, but not under accelerated approval regulations in the United States as described in 21 CFR 601, subpart E, or similar conditions of an applicable Regulatory Authority in a country other than the United States.

1.119 "Preliminary Bayer Offer", "Preliminary Third Party Offer" and "Preliminary Third Party Offer Period" each have the meaning as set forth in Section 2.5.2.3.

1.120 "Pricing Approval" means all applicable governmental pricing and reimbursement approvals required from the relevant Regulatory Authority to market and sell and / or obtain reimbursement for, the Licensed Product in a particular country or jurisdiction.

1.121 "Product Marks " means any Mark Controlled by a Bayer Party and used in connection with the Development, Commercialization or Manufacture of the Licensed Product; for the avoidance of doubt, Product Marks do not include the Bayer Marks.

1.122 "Program Transfer" has the meaning set forth in Section 18.3.4.2.

1.123 "Public Communication(s)" means any communication by a Party, whether made in writing, orally or in any other form, (i) which is directed to the general public, media, analysts, investors, attendees of industry conferences or financial analyst calls or similar audiences (including press releases, statements in corporate material, on internet sites or in investor relations material and any written or oral response to media inquiries or to questions in shareholder meetings or financial analyst calls), (ii) which refers to the transaction contemplated under this Agreement (including signing of this Agreement, reach of milestones, outcome of clinical trials, Regulatory Approval and / or launch of a Licensed Product, sales figures and development of the relevant markets, but excluding, for the sake of clarity, promotional claims regarding any Licensed Cell Therapeutic and / or Licensed Product), and (iii) which does not qualify as Scientific Communication.

1.124 "Quarter" means each period of three (3) months ending on March 31, June 30, September 30, or December 31, and " Quarterly" shall be construed accordingly.

1.125 "Receiving Party" has the meaning set forth in Section 12.1.1 below.

1.126 "Regulatory Approval" means any approval, license, registration or authorization required from the relevant Regulatory Authority to market and sell the Licensed Product in a particular country or jurisdiction; for the avoidance of doubt, Regulatory Approval does not include any Pricing Approvals.

1.127 "Regulatory Authority" means the FDA, the EMA or any supranational, national or local agency, authority, department, inspectorate, ministry official, parliament or public or statutory person of any government of any country having jurisdiction over any of the activities contemplated by this Agreement or the Parties, or any successor bodies thereto.

1.128 "Regulatory Documentation" means all applications, registrations, licenses, authorizations and approvals, all correspondence submitted to or received from Regulatory Authorities (including minutes and official contact reports relating to any communications with any Regulatory Authority) and all supporting documents and all

clinical studies and tests relating to the Licensed Product, and all data included in the foregoing, including all INDs, BLAs, Regulatory Approvals, regulatory drug lists, adverse events files and complaints files.

1.129 "Research Activities" has the meaning set forth in Section 3.1.1.

1.130 "Research Plan" means the plan attached to this Agreement as Exhibit 1.130, [[***]], as such plan may be amended by both Parties in accordance with Section 3.5.

1.131 "Results" means any Know How and related Patent Rights that are generated in the course of or as a result of the performance of the Collaboration Activities; for clarity, Results include all Collaboration Results and Bayer Background Improvements.

1.132 "Royalty Term" means, on a country-by-country basis and Licensed Product-by-Licensed Product basis, the period commencing with the First Commercial Sale of such Licensed Product in the relevant country, and ending upon the later of:

(i) twelve (12) years from the First Commercial Sale of such Licensed Product in such country; or

(ii) expiration or termination of the last to expire Valid, Practiced Claim of a Licensed Patent covering such Licensed Product in such country that claims the [[***]] of such Licensed Product.

1.133 "Scientific Communication" means any communication by a Party (including documents, posters, manuscripts and abstracts, and including, with respect to Atara, any communication by MSK relating to ATA2271), whether made in writing, orally or in any other form, (i) which is directed to the general public, the scientific community, physicians, attendees of industry conferences and / or similar audiences, (ii) which is of a purely scientific or medical nature and does not qualify as promotional material under Laws, and (iii) which includes any data or results of any clinical trial or any other information regarding or related to the Licensed Cell Therapeutic and / or Licensed Product.

1.134 "Securities Exchange Rules" means the applicable rules or regulations of a securities exchange or listing entity on which its publicly-traded securities are listed.

1.135 "Sublicensee" means a Third Party to which Atara and/or Bayer has granted a sublicense in accordance with Section 2.1 and/or Section 2.2 of this Agreement, in each case, as the context may require.

1.136 "Sublicense Income" means [[***]] received by Bayer or Bayer Affiliates from Sublicensees (other than Bayer Affiliates) as license fee for the right to Develop and / or Commercialize any [[***]].

1.137 "Systemic Product" has the meaning set forth in Section 9.4.1.

1.138 "Terminated Product" has the meaning set forth in Section 18.3.4.2(v).

1.139 "Territory" means all countries of the world.

1.140 "Third Party" means any entity or person other than a Bayer Party or Atara or its Affiliates.

1.141 "Tumor Type", as opposed to another Tumor Type, shall be [[***]].

1.142 "Upstream Licensors" means, with respect to (a) the MSK Upstream Licenses, MSK, (b), the NIH Upstream License, NIH, and (c) the BioVec Upstream License, BioVec.

1.143 "U.S. Bankruptcy Code" has the meaning set forth in Section 18.5.1 below.

1.144 "Valid, Practiced Claim" means, with respect to a Licensed Product in a particular country:

(i) a claim of an issued Patent Right covering [[***]] that would be infringed but for the licenses granted in this Agreement and that has not (A) expired or been cancelled, (B) been declared invalid or unenforceable by a decision of a court, patent office, administrative agency, or other appropriate body of competent jurisdiction, from which no appeal is or can be taken, (C) been admitted to be invalid or unenforceable through reexamination, reissue, disclaimer or otherwise, or (D) irretrievably lapsed or been abandoned, revoked or disclaimed; provided that

(ii) solely with respect to Licensed Patent Rights within the MSK Upstream License, "Valid, Practiced Claim" also includes a claim of a pending patent application constituting a Licensed Patent Right that was filed and is being prosecuted in good faith, covering [[***]] that would, if a patent containing such claim issues, be infringed but for the licenses granted in this Agreement and that has not been (A) pending for more than [[***]] years, (B) abandoned or (C) finally disallowed without the possibility of appeal or re-filing of the application; provided, however, that in the case of (ii)(A), if, thereafter, a patent containing such claim issues, such claim shall thereafter be considered a Valid, Practiced Claim in accordance with subclause (i) above.

1.145 "Voluntary Public Communication" means a Public Communication which is not required by Laws, Securities Exchange Rules or a Regulatory Authority's valid request.

1.146 Additional Definitions: The following table identifies the location of definitions set forth in various Sections of this Agreement:

Defined Term	Section Reference
"Acquiror Group"	Section 15.4.5
"Acquisition Notice Period"	Section 15.4.1
"Alliance Sponsor"	Section 3.6.1
"Bayer Supplier Code of Conduct"	Section 3.3.6
"Cessation Notice"	Section 11.6.2
"Co-Chair"	Section 3.6.3.1
"Commercialization Plan"	Section 6.1.4
"Employee Data"	Section 17.4.1.3
"Human Data"	Section 17.4.1.4

"Human Samples"	Section 17.4.1.4
"JSC Charter"	Section 3.6.3.2
"Overpayment Amount"	Section 10.2.9
"Patent Matters"	Section 20.4
"Prosecuting Party"	Section 11.7.2.1
"Rules"	Section 20.2
"Upfront License Payment"	Section 9.1
"VAT"	Section 9.7.1

ARTICLE 2
LICENSE GRANT, TECHNOLOGY TRANSFER

2.1 License Grants by Atara.

Subject to the terms of this Agreement, Atara hereby grants to Bayer and Bayer's Affiliates

2.1.1 a royalty- and milestone- bearing license - with the right to grant sublicenses, including the right to grant further sublicenses through multiple tiers of sublicensees pursuant to Section 2.4 below - under the Licensed Technology to Exploit Licensed Cell Therapeutics and Licensed Products in the Field in the Territory. The license granted to Bayer under this Section 2.1.1 shall be exclusive (even as to Atara and its Affiliates, except to the extent necessary or reasonably useful for Atara and its Affiliates to perform its and their obligations under this Agreement) with respect to the Exclusive Technology and non-exclusive with respect to the Non-Exclusive Technology; and

2.1.2 a royalty-free, fully paid-up, irrevocable, perpetual, non-sublicensable, non-exclusive license under the Licensed Know How owned solely by Atara, solely for Bayer's and Bayer's Affiliates internal research purposes.

2.1.3 Existing Agreements. Notwithstanding anything to the contrary in this Agreement, [[***]].

2.2 License Grant by Bayer.

Subject to the terms of this Agreement, Bayer hereby grants to Atara and Atara's Affiliates

2.2.1 a non-exclusive, fully paid-up, royalty-free, non-sublicensable (except to subcontractors approved in accordance with Section 3.3.6, performing work or otherwise acting on behalf of Atara) license under the Bayer Background Technology and Bayer Background Improvements for the purpose of conducting the Collaboration Activities under and in accordance with this Agreement;

2.2.2 a royalty-free, fully paid-up, irrevocable, perpetual, non-exclusive license - with the right to grant sublicenses (including the right to grant further sublicenses through multiple tiers of sublicensees pursuant to Section 2.4 below) - under any Bayer Results and Joint Results that are Improvements to Atara's proprietary technology relating to the Manufacture of EBV-sensitized T cells for any and all purposes; and

2.2.3 a royalty-free, fully paid-up, irrevocable, perpetual, non-sublicensable license under the Know How within the Bayer Background Technology solely owned by Bayer that is disclosed by any of the Bayer Parties to Atara or Atara's Affiliates, in each case solely for Atara's internal research purposes.

2.3 License Grant with respect to New Technology . With respect to New Technology, Atara shall:

(i) promptly notify Bayer of the acquisition by Atara or any of its Affiliates of any New Technology, including a description of the type of such New Technology, its potential benefits known to Atara with respect to the Exploitation of Licensed Products and [[***]]; and

(ii) within [[***]] after such notification, offer Bayer a license [[***]], such license to form part of the licenses granted under this Agreement, subject to any limitations resulting from the terms of the upstream license as specifically disclosed by Atara to Bayer.

If Bayer agrees to such offer (each such offer a "New Technology Offer") in writing, the licensed rights shall, upon Atara's receipt of Bayer's written acceptance, become subject to the licenses granted to Bayer under Section 2.1, provided that such licensed rights shall be subject to the terms of the applicable upstream license as specifically disclosed by Atara to Bayer. [[***]]. Notwithstanding anything to the contrary contained in this Agreement, this Section 2.3 will terminate in the event that Atara enters into a [[***]], provided that such Third Party is an entity that, immediately prior to the entering into such Change of Control transaction(s), (a) is active in the field of [[***]] and (b) has either (i) a market capitalization of at least [[***]], or (ii) reported revenue of more than [[***]] in the [[***]] month period preceding such Change of Control transaction(s).

2.4 Sublicensing. To the extent that the licenses granted under Sections 2.1 and 2.2 are sublicensable, the sublicensing Party shall comply with the following obligations:

2.4.1 Sublicensing Party's Responsibility. For the avoidance of doubt, any sublicense granted hereunder shall (i) be subject to the terms of this Agreement (including, where applicable, the consent of the applicable upstream licensor) and (ii) not relieve the sublicensing Party from any of its obligations under this Agreement. In addition, any act or omission by a Sublicensee of a Party in connection with this Agreement that, if committed by such Party would be a breach of this Agreement, shall constitute a breach of this Agreement by such Party, provided that Atara shall not have the right to terminate this Agreement pursuant to Section 18.2.2 for an uncured material breach by Sublicensee if (i) such breach was not made at the direction or with the approval of Bayer or a Bayer Affiliate and (ii) upon Atara's request, Bayer causes such Sublicensee to cure such breach within [[***]] days following such notice or, if the Sublicensee fails to cure the breach within such period, terminates the sublicense after the end of the applicable cure period within [[***]] Business

Days from Bayer's receipt of a request from Atara to terminate the sublicense. Notwithstanding the foregoing, [[***]].

2.4.2 Notice to Atara.

2.4.2.1 Bayer shall provide written notice thereof to Atara within [[***]] Business Days after entering into any sublicense permitted under Section 2.1.1 (other than to an Affiliate of Bayer, provided that should any such Affiliate of Bayer cease to be an Affiliate of Bayer at any time during the Term, Bayer shall within [[***]] Business Days provide written notice to Atara of the applicable sublicense to such former Bayer Affiliate). Bayer will provide to Atara a complete copy of the relevant sublicense agreement within [[***]] days following its execution; provided, however, that the terms of any such sublicense agreement may be redacted to the extent they are not necessary to assess whether Bayer is in compliance with this Agreement. In addition, and notwithstanding the above, if the sublicense agreement includes any sublicense grant from Bayer to a Third Party under the NIH Upstream License, once such sublicense agreement is substantially complete, Bayer shall promptly deliver a copy of such draft to Atara (and Atara shall promptly deliver such copy to NIH) in order to permit NIH to exercise the rights set forth in Section 4 of the NIH Upstream License, it being understood that NIH shall have at least [[***]] Business Days from delivery of such copy by Atara to review and provide comments on such draft, and Atara will promptly provide such comments, if any, to Bayer. Without limiting the foregoing, any such sublicense agreement will be subject to NIH's consent pursuant to the NIH Upstream License, provided that, should Atara fail to provide a response to Bayer within [[***]] Business Days from delivery to Atara of the substantially complete draft referenced above, Bayer may execute and enter into such sublicense agreement.

2.4.2.2 Without limiting the foregoing,

(i) any sublicense grant from Bayer to a Third Party that at the time of such grant is engaged in the Development and/or Commercialization, whether on its own or together with its affiliates or Third Parties, of any [[***]] requires Atara's prior written approval, which approval Atara may not unreasonably withhold, condition or delay; and

(ii) any sublicense grant from Bayer to a Third Party under the NIH Upstream License requires Atara's prior written approval, which approval Atara may only withhold on the grounds of [[***]]; and

(iii) any sublicense grant from Bayer to a Third Party under the BioVec Upstream License must be in connection with a license under further Licensed Technology and requires Atara's prior written approval, which approval Atara may only withhold on the grounds of [[***]].

provided that, with respect to (ii) and (iii) above, Atara shall use reasonable efforts to request NIH and/or BioVec to provide such approval.

2.5 Options to negotiate.

2.5.1 Option for Sublicense under MOFFITT Upstream License. For [[***]] (the "MOFFITT Option Period"), provided that Atara has no obligation to amend or attempt to amend the MOFFITT Upstream License to extend the term thereof, Atara hereby grants to Bayer an option - which option Bayer may only exercise upon the occurrence of [[***]] - to negotiate with Atara a non-exclusive sublicense under the MOFFITT Upstream License [[***]]. Bayer may exercise such option right by written option exercise notice during the MOFFITT Option Period or the term of this Agreement, whichever ends sooner. Upon Atara's receipt of any such option exercise notice, Atara shall within due course, but in no event later than [[***]] after receipt of the notice, offer Bayer to include the relevant MOFFITT Upstream License in the definition of "Licensed Technology" under this Agreement [[***]], which offer will include, with respect to such MOFFITT sublicense, any deviations from this Agreement that are [[***]] required to ensure consistency with the terms and conditions of the relevant MOFFITT Upstream Licenses, and conditional upon MOFFITT's approval, in each case if and to the extent required for Atara to comply with its contractual obligations under the MOFFITT Upstream License. Atara will use [[***]] efforts to obtain MOFFITT's approval of the sublicense grant to Bayer and, upon Bayer's reasonable request, to negotiate with MOFFITT any further amendments which may be required to grant Bayer the right to use the relevant MOFFITT Upstream License with the same scope as the rights granted by Atara to Bayer under the Licensed Technology pursuant to Section 2.1.

2.5.2 Option for Other CAR-Ts. Bayer will receive the following preferential treatment in the event that Atara or any of its Affiliates has determined to out-license or otherwise grant any Development or Commercialization rights to Third Parties (for clarity, except for ancillary rights granted to contractors, consultants, or other Third Parties engaged by Atara or any of its Affiliates to perform services for or on behalf of Atara or any of its Affiliates) under any Patent Rights or Know How covering any Other CAR-T, in each case to the extent legally possible without breaching any Laws (including on data privacy) or obligations (including contractual obligations) towards Atara's licensors with respect to such Other CAR-T or any other Third Parties who possess any rights, interest or title in any such Other CAR-T, provided that Atara shall not agree on contractual restrictions that limit Atara's ability to grant a license specifically to Bayer whilst not limiting Atara's ability to grant a license to Third Parties generally (for clarity, notwithstanding Atara's right to grant to its contractors, consultants or other Third Parties performing services for Atara or any of its Affiliates or otherwise acting on Atara's or its Affiliates' behalf all rights required for performance of such services):

2.5.2.1 Subject to Section 2.5.2.9, during the [[***]] period beginning on the Effective Date, Atara will promptly inform Bayer in writing about the Other CAR-T and the availability of a license thereunder prior to [[***]] and will, upon written request of Bayer to be submitted within [[***]] Business Days upon receipt of Atara's notification, negotiate in good faith a respective agreement with Bayer. Notwithstanding the foregoing or anything to the contrary contained in Section 2.5.2, Atara shall, at all times, be free to enter into negotiations with any Third Parties for a license to any such Other CAR-T following notification of Bayer pursuant to this Section 2.5.2.1 and, for clarity, Atara may continue to negotiate with any such Third Parties while separately and

concurrently negotiating with Bayer for a license to any such Other CAR-T (including the same Other CAR-T), in each case subject to Bayer's other rights under Section 2.5.2.

2.5.2.2 Subject to Section 2.5.2.9, during the [[***]] period beginning on the Effective Date, Atara hereby additionally grants Bayer a right of [[***]] prior to any grant of rights under such Other CAR-T programs to Third Parties, as described in detail in Sections 2.5.2.3 - 2.5.2.8 below.

2.5.2.3 If Atara reaches final agreement on a term sheet or, in the absence of any final agreement on a term sheet before a definitive agreement is drafted, on the key business terms with a Third Party with respect to the transfer of, or grant of license or rights under, any Other CAR-T (whether by assignment, license or otherwise) (a "Preliminary Third Party Offer"), Atara shall notify Bayer in writing within [[***]] days of reaching such agreement, which notice shall include [[***]] - for such Preliminary Third Party Offer (a "Preliminary Third Party Offer Notice"). Such notice shall be subject to any applicable confidentiality obligations to such Third Party; provided that Atara shall [[***]]. Bayer shall have [[***]] Business Days after Atara has delivered to Bayer such Preliminary Third Party Offer Notice to deliver a written response to Atara , which response shall include [[***]].

2.5.2.4 If Atara determines in good faith that such Preliminary Bayer Offer is [[***]], taking into consideration all material terms thereof but not any terms undisclosed to Bayer, Atara shall so notify Bayer in writing, and (i) Atara will promptly enable Bayer to perform a customary due diligence on the applicable Other CAR- and (ii) within [[***]] days from Bayer's receipt of such notice from Atara – such period to be extended in good faith upon written request of Bayer if both Parties are still in active negotiations – the Parties shall use good faith efforts to [[***]].

2.5.2.5 Prior to entering into a definitive agreement with any Third Party with respect to the transfer of, or grant of license or rights under, the Other CAR-T (whether by assignment, license or otherwise, Atara shall review whether the envisaged final agreement deviates in any respect from [[***]]. In case of any such deviations, Atara shall provide Bayer with a written summary of such differences, including its assessment whether these deviations are material in any of the following manners:

2.5.2.6 at least [[***]] percent [[***]] deviation of [[***]] to be paid to Atara or any Affiliate of Atara up to (including) first commercial sale of a licensed product;

2.5.2.7 at least [[***]] percent [[***]] change of [[***]] to be paid to Atara or any Affiliate of Atara;

2.5.2.8 any material change of [[***]], licensed field or licensed territory; or

2.5.2.9 any material change of [[***]], supply and commercialization activities;

(the "Final Third Party Offer Notice"). [[***]].

2.5.2.10 Bayer shall have [[***]] Business Days following Atara's delivery to Bayer of a Final Third Party Offer Notice [[***]] to deliver a written counter-offer to Atara (a "Final Bayer Offer"), and Atara shall within [***]] Business Days upon receipt of such Final Bayer Offer determine in good faith - and provide written notice thereof to Bayer - whether the terms of such Final Bayer Offer are [[***]], taking into consideration all material terms thereof, but not any terms undisclosed to Bayer. If Atara, in its reasonable discretion based solely on a comparison of the Final Third Party Offer Notice and the Final Bayer Offer, determines that the Final Bayer Offer is [[***]], Atara shall so notify Bayer in writing, and (i) Atara will promptly enable Bayer to perform a customary due diligence on the applicable Other CAR-T and (ii) within [[***]] days from Bayer's receipt of such notice from Atara – such period to be extended in good faith upon written request of Bayer if both Parties are still in active negotiations – the Parties shall use good faith efforts to enter into a license agreement with respect to such Other CAR-T on the terms of the Final Bayer Offer. If Atara, in its reasonable discretion based on the principles specified above, determines that the Final Bayer Offer is [[***]], Atara shall so notify Bayer in writing.

2.5.2.11 If Atara disagrees with Bayer's Objection Notice or if Bayer objects within [[***]] days after receipt of notice of Atara's determination that a Preliminary Bayer Offer or Final Bayer Offer is [[***]], the objecting Party shall notify the other Party of the dispute and the issue shall be referred to each Party's Executive Sponsor who shall meet within [[***]] Business Days (in person, by means of telephone conference, videoconference or other means of communications) and attempt in good faith to resolve such issue within such [[***]] Business Days period (subject only to, in the case of Atara, approval of its board of directors or, in the case of Bayer, approval of the applicable management board, if required). Notwithstanding the foregoing, if [[***]].

2.5.2.12 If, [[***]] Atara shall thereafter be free to enter into an agreement with such Third Party related to such Other CAR-T based on the Final Third Party Offer. For clarity, Bayer's option with respect to any particular Other CAR-T shall [[***]].

2.5.2.13 Notwithstanding anything to the contrary contained in this Agreement, the options and preferential treatment granted to Bayer and Atara's obligations under Section 2.5.2 will, at Atara's option, terminate in the event that Atara enters into a transaction or series of transactions with a Third Party acquiror that constitutes a Change of Control of Atara, provided that such Third Party is an entity that, immediately prior to the entering into such Change of Control transaction(s), (a) is active in the field of [[***]] and (b) has either (i) a market capitalization of at least [[***]], or (ii) reported revenue of more than [[***]] in the [[***]] month period preceding such Change of Control transaction(s). Atara may exercise such option by written notice to Bayer within [[***]] following any such Change of Control of Atara. For clarity, the foregoing sentence does not apply in the reverse scenario where Atara acquires a Third Party subject to the Change of Control definition in this Agreement. If Atara's obligations under Sections 2.5.2.2-2.5.2.8 terminate pursuant to this Section 2.5.2.9 during the [[***]]period

beginning on the Effective Date and Bayer has not acquired any rights under any Other CAR-T prior to such termination, then Atara shall pay to Bayer an amount of [[***]] within [[***]] days of receipt of the relevant invoice from Bayer, which Bayer may submit on or following the date of termination of such Atara obligations. For clarity, any exercised options under Section 2.5.2 (including all subsections thereunder) shall remain unaffected by any termination of the option rights pursuant to this Section 2.5.2.9. For clarity, and without limiting the foregoing, Section 2.5.2 (including all subsections thereunder) does not and will not apply to any grant of rights to any Third Party resulting from a transaction or series of transactions between Atara and any Third Party acquiror that constitutes a Change of Control of Atara, and Bayer will not receive the preferential treatment and option rights contemplated under Section 2.5.2 in any such scenario.

2.5.3 Additional License. To the extent Bayer wishes to obtain (a) a commercial license under any Know How or Patent Rights Controlled by Atara that is [[***]], or (b) [[***]] under Section 2.1.2, Bayer may, during the term of this Agreement, notify Atara of its desire to enter into negotiations regarding such potential license or expansion by providing written notice to Atara specifying (i) [[***]] or (ii) [[***]] license under the Know How granted to Bayer and its Affiliates under Section 2.1.2, as applicable. Upon Atara's receipt of any such notice and if Atara so agrees in its sole discretion, the Parties shall discuss the terms of a possible license agreement with respect to the relevant intellectual property rights for which Bayer has requested a license.

2.6 Technology Transfer.

2.6.1 Subject to Article 7, which covers the CMC/manufacturing process transfer, within [[***]] days of the Effective Date, Atara shall, and shall cause its Affiliates to, [[***]] deliver to Bayer and / or its designated Affiliate or Sublicensee, in a mutually agreeable form, copies of all written, graphic or electronic embodiments of the Licensed Technology and related Complete Invention Disclosures as well as all cell therapeutics and other materials pertaining to [[***]] for Exploiting Licensed Cell Therapeutics and Licensed Products (hereinafter the "Materials"), [[***]].

2.6.2 Thereafter, on a continuing basis during the term of this Agreement, Atara shall, [[***]] and shall cause its Affiliates to, as soon as reasonably practicable disclose and deliver to Bayer and / or its designated Affiliate or Sublicensee, as soon as reasonably practicable, in a mutually agreeable form, copies of all written, graphic or electronic embodiments of all additional Licensed Technology and / or Complete Invention Disclosures and of all Material which comes into existence from time to time, [[***]].

2.6.3 Without prejudice to the generality of Sections 2.6.1 and 2.6.2, until [[***]] Atara shall, [[***]] at the Atara FTE Rate for each additional FTE hour**,** provide Bayer or its designated Affiliate or Sublicensee with reasonable technical assistance relating to the use of the Licensed Technology for the purposes of transferring the Licensed Technology from Atara to the applicable Bayer Party, for the purposes of the applicable Bayer Party's acquisition of expertise on the practical application of the Licensed Technology or for the provision of assistance to the applicable Bayer Party on issues arising from time to time during any Exploitation of the Licensed Technology, e.g. with respect to [[***]]. If visits of Atara's representatives to the facilities of the

applicable Bayer Party are requested, Atara shall send appropriate representatives to such facilities, provided that Bayer shall reimburse Atara for its reasonable and verifiable out-of-pocket expenses of travel and accommodation for such representatives that have been pre-approved by Bayer in writing.

2.7 Good Faith Efforts to Control Required Intellectual Property. Upon Bayer's written request, Atara shall use good faith efforts to acquire licenses under Know How and Patent Rights that become controlled by MSK and NIH after the Effective Date, to the extent that those intellectual property rights are (i) not yet included in Atara's licenses under the MSK Upstream Licenses and the NIH Upstream License, as applicable, and (ii) reasonably required for the Exploitation of Licensed Products. This obligation is subject to good faith agreement between Atara and Bayer on sharing of any additional license fees to be paid for the additional licenses.

2.8 No Other Licenses. Except as expressly provided in this Agreement, neither Party shall be deemed, whether by estoppel, implication or otherwise, to have granted the other Party any license or other right with respect to any intellectual property rights of such Party, its Sublicensees, its upstream licensors, or its or their Affiliates. And each Party hereby covenants, on behalf of itself and its Affiliates, not to Exploit any intellectual property rights licensed to such Party or its Affiliates under this Agreement (and, to the extent such Party sublicenses any such intellectual property rights to any Sublicensees hereunder, shall cause such Sublicensees, not to Exploit any such intellectual property rights) except as expressly permitted herein.

ARTICLE 3
GOVERNANCE

3.1 Purpose and Scope of Collaboration. The Parties are entering into a collaboration, with the intent of

3.1.1 further developing ATA3271 [[***]] (hereinafter the "Research Activities") in accordance with the Research Plan; and

3.1.2 developing the CMC process for clinical supply manufacture with respect to ATA3271 (hereinafter the " CMC Activities") in accordance with the CMC Plan.

3.2 Collaboration Plans. Each of (a) the Research Activities and (b) the CMC Activities shall be carried out during the relevant Collaboration Term in accordance with the relevant Collaboration Plan. Each Collaboration Plan sets forth the responsibilities and activities to be performed by the Parties, details regarding each of the Parties' deliverables and timetables for delivery of such deliverables. The Collaboration Plans may be modified by the JSC in accordance with Section 3.5, provided that no such modification may materially increase the other Party's obligations under such Collaboration Plan unless the Parties have agreed to such increase in accordance with Section 21.11. To the extent any terms in any Collaboration Plan should at any time conflict with the terms of this Agreement, the terms of this Agreement shall prevail.

3.3 Performance of the Collaboration Activities.

3.3.1 Each Party shall [[***]] perform those parts of the Collaboration Activities that it is responsible for in the manner and within the times frame set forth in the relevant Collaboration Plan and otherwise in accordance with the terms of this Agreement.

3.3.2 Each Party shall maintain and make available for the Collaboration Activities all laboratories, offices and other facilities that are necessary to carry out its responsibilities under the relevant Collaboration Activities pursuant to the relevant Collaboration Plan.

3.3.3 Reports.

3.3.3.1 Each Party shall submit to the other Party reports on its activities under each of the (a) Research Activities and (b) CMC Activities, and shall provide to the other Party deliverables of such activities, each with information, frequency, within the timelines and with a format as specified in the relevant Collaboration Plan.

3.3.3.2 In addition, each Party's Alliance Manager shall, with respect to each of the (a) Research Activities and (b) CMC Activities,

(i) provide the members of the JSC with written updates regarding its Party's activities under the relevant Collaboration Plan, including summary results and analyses thereof, prior to each JSC meeting; and

(ii) on a [[***]] basis until the end of the relevant Collaboration Term, provide the JSC with a written report regarding its Party's activities under the relevant Collaboration Plan, including protocols, experimental procedures, results, analyses thereof and conclusions for the previous [[***]] month period (or in the case of the report at the end of the relevant Collaboration Term for the period since the previous written report) in a mutually agreed format.

At the request of an Alliance Manager, the Alliance Managers and members of the responsible teams of both Parties will discuss any questions regarding the contents of such reports.

3.3.4 Records. Each Party shall prepare and maintain complete and accurate written records, in sufficient detail and in good scientific manner appropriate also for patent and regulatory purposes, pertaining to its respective activities under the Collaboration Activities. Such records shall properly reflect all work done, results achieved and inventions discovered and reduced to practice in the performance of its works under the Collaboration Activities and shall be retained by such Party for at least [[***]] years after the expiration or termination of this Agreement, or for such longer period as may be required by any Laws. Each Party shall make such records available for inspection by the other Party at all reasonable times and deliver copies of such records to the other Party at such other Party's reasonable request.

3.3.5 Place of Performance. Atara shall perform those parts of the Collaboration Activities that it is responsible for exclusively at [[***]]; as applicable.

3.3.6 Subcontracting. Atara shall not subcontract any parts of the Collaboration Activities to any Third Party without the prior written consent of Bayer. Bayer, however, hereby consents to Atara's Affiliates and, solely with respect to activities that MSK is responsible for pursuant to the ATA2271 Plan, to MSK acting as subcontractors of Atara. In case of any written consent of Bayer, if required, to the use of a specific subcontractor for a specific activity, unless

explicitly otherwise agreed, the consent will be deemed given under the condition that such contractor of the other Party enters or has entered into an agreement obligating such contractor to all confidentiality, publication and intellectual property-related provisions of this Agreement, applicable to Atara. Each Party shall be solely responsible for the supervision and direction of contractors performing activities designated as such Party's task under the Collaboration Plan and shall be solely liable for the performance of such activities by such contractors in compliance with this Agreement. Atara will impose on any subcontractor who supplies drug product or any parts thereof sustainability obligations that are substantially equivalent to the sustainability requirements specified in the Bayer Supplier Code of Conduct, which is attached hereto as Exhibit 3.3.6 (the "Bayer Supplier Code of Conduct").

3.3.7 Each Party agrees to perform all its activities within the Collaboration Activities in good scientific manner and to comply with all Laws applicable to the performance of the activities that it is responsible for under the Collaboration Plans.

3.3.8 Neither Party shall use in any capacity the services of anyone debarred, disqualified, blacklisted or banned or under investigations or threat of investigations by any regulatory authority for debarment, disqualification, blacklisting or any similar regulatory action in any jurisdiction anywhere in the world. Furthermore, each Party represents and warrants that neither such Party nor its employees, agents or representatives involved in the performance of the Collaboration Activities have been debarred, disqualified, blacklisted or banned by any regulatory authority, nor are they currently, to such Party's Knowledge, the subject of such a debarment, disqualification, blacklisting or banning proceeding. During the term of the Agreement, each Party shall promptly notify the other Party should it or any of its employees, agents or representatives involved in the performance of the Collaboration Activities become the subject of such debarment, disqualification, blacklisting or banning proceeding.

3.3.9 Atara is expected to [[***]] organize its activities under the Collaboration Plans in a manner that [[***]] in line with the Bayer Supplier Code of Conduct, provided that in the event of any conflict between the Bayer Supplier Code of Conduct and a Collaboration Plan, the Collaboration Plan shall govern. Bayer shall have the right to audit the sustainability performance of Atara, either by written assessment (online, paper questionnaire, etc.) or, upon reasonable advance written notice, by an onsite audit conducted at a mutually agreeable time and in a mutually agreeable manner, executed directly by Bayer or by a Third Party auditor reasonably acceptable to Atara, provided that any such Third Party auditor has entered into an agreement obligating such Third Party auditor to all confidentiality, publication and intellectual property-related provisions of this Agreement, applicable to Bayer. The sustainability performance will be evaluated by comparing it with the Bayer Supplier Code of Conduct principles.

3.3.10 Material Transfer.

3.3.10.1 From time to time, Bayer may transfer materials to Atara for purposes of the Collaboration Activities.

3.3.10.2 Atara understands that materials transferred by Bayer are experimental in nature and Bayer does not make any representation or warranty,

express or implied, as to the identity, ownership, purity, utility, safety or activity of such biological materials.

3.3.10.3 Atara shall use Bayer's materials only for the purposes of performing its obligations or exercising its rights under this Agreement. Atara shall not reverse engineer or analyze (except to the extent expressly permitted in the Collaboration Plan and then only for the purposes of the Collaboration Activities) the material or otherwise attempt to determine the identity, structure, or composition of the material, nor will Atara permit or assist others to do so.

3.3.10.4 Atara shall not transfer Bayer's material to any Third Party, except to contractors or collaborators of Atara for the purposes authorized by this Agreement upon prior written notice of such transfer to Bayer.

3.4 Responsibility for Expenses for Conduct of the Collaboration Activities. Except as may be specifically agreed to in writing by the Parties, Bayer shall bear its own costs and expenses incurred in the performance of the activities to be performed by it under the Collaboration Plans and the reimbursement upfront fee to be paid by Bayer to Atara pursuant to Section 9.2 shall, except as otherwise specified in this Agreement, be the complete reimbursement for Atara's costs and expenses incurred in the performance of Collaboration Activities identified as [[***]] under the Collaboration Plans. For clarity, neither Party shall be under any obligation to incur any cost other than as necessary to fulfill such Party's obligations under this Agreement.

3.5 Revisions or Expansions to Collaboration Plan.

3.5.1 Any revision or expansion to the Collaboration Plan that may be requested by either of the Parties during the relevant Collaboration Term shall be discussed by the JSC. This includes, without limitation, discussions regarding the effect any such requested revision or expansion will have on the deliverables (including timing) to be provided under the relevant Collaboration Plan and the allocation of Atara's and / or Bayer's resources for performance of its activities under the relevant Collaboration Activities.

3.5.2 The JSC shall have the authority to amend the relevant Collaboration Plan per such Party's request, and such amendment shall be incorporated into the relevant Collaboration Plan by reference. For clarity, this does not include any right of the JSC to change any terms of this Agreement other than solely within the relevant Collaboration Plan.

If the JSC determines that a Party's request refers to matters that do not materially change the Collaboration Plan and such changes do not materially impact the amount of resources allocated to such activity, the JSC shall have the authority to amend the Collaboration Plan per such Party's request, and such amendment shall be incorporated into the Collaboration Plan by reference.

If the JSC determines that the request refers to matters that materially change the Collaboration Plan, or that such changes materially impact the amount of resources allocated to such activity, the JSC shall prepare and present to the Parties' respective Executive Sponsors a detailed written proposal for such revision or expansion to the Collaboration Plan. If such proposal is approved by the Executive Sponsor of each of the Parties, the amended Collaboration Plan shall be agreed upon pursuant to Section 21.11.

3.6 Governance.

3.6.1 Alliance Sponsors. Each party shall designate an executive as sponsor for the alliance (each such executive, an "Alliance Sponsor"). The Alliance Sponsors shall meet and confer as often as they deem appropriate to maintain the health, priority, and direction of the relationship and to proactively solve issues as necessary. The initial Alliance Sponsor designated by Atara is the Vice President, Corporate Strategy and Business Development of Atara, and the initial Alliance Sponsor designated by Bayer is the Vice President, Head of Oncology Strategy & Early Commercialization of Bayer.

3.6.2 Alliance Managers. As soon as practicable after the Effective Date, each Party shall nominate a representative to act as its alliance manager under this Agreement (the "Alliance Manager"). The Alliance Managers shall serve as the key contact point between the Parties. Each Alliance Manager shall be a permanent non-voting member of the Joint Steering Committee and any subcommittee(s). A Party may replace its Alliance Manager at any time by providing written notice to the other Party.

3.6.3 Joint Steering Committee. Within [[***]] days after the Effective Date the Parties shall establish a joint steering committee (the "Joint Steering Committee" or "JSC").

3.6.3.1 Composition. The JSC shall be composed of an equal number of representatives [[***]] from each Party plus the Alliance Manager(s) in a [[***]] capacity. Each JSC representative shall have appropriate experience, knowledge and authority within such Party's organization to carry out the duties and obligations of the JSC. Each Party shall name its initial JSC representatives and designate one of its representatives as the co-chair (each, a "Co-Chair") for that Party.

3.6.3.2 Responsibilities of the JSC. The JSC provides strategic direction and operational oversight to the Alliance, evaluates performance, recommends corrective action and shall act as the point of escalation for issues that cannot be resolved at subcommittee or sub-team levels. Within [[***]] days of the execution of the agreement, the JSC shall jointly establish a charter (the "JSC Charter") that details specific responsibilities and such JSC Charter will be updated annually to ensure it is focusing on key activities and contractual obligations. Initial considerations for the JSC Charter include:

(i) monitoring performance of this Agreement as well as progress of the Collaboration Activities compared to the goals defined in the Collaboration Plans and deciding on corrective action, where required;

(ii) serving as the principal means by which each Party keeps the other Party informed about the status of those parts of the Collaboration Activities within its responsibilities;

(iii) reviewing and discussing as to whether the deliverables have been achieved;

(iv) agreeing on changes to the existing Collaboration Plans - including, with respect to the Research Plan in the event of

[[***]] - in each case, which do not materially increase or decrease Atara's or Bayer's obligations, provided that, for clarity, the JSC shall not have the authority to [[***]];

(v) recommending modifications to the Collaboration Plan which materially increase or decrease Atara's or Bayer's obligations, or any other amendments to this Agreement;

(vi) agreeing on changes to the ATA2271 Plan, which changes shall be subject to MSK approval prior to taking effect, provided that Atara shall use reasonable efforts to obtain such MSK approval;

(vii) identifying the Bayer Background Technology, if any, to be used in connection with the Collaboration Activities;

(viii) acting as the point of escalation for issues that cannot be resolved otherwise; and

(ix) performing such other functions as are specifically assigned to the JSC in this Agreement.

3.6.3.3 Operation of the JSC.

(i) JSC Meetings. The JSC shall meet (in person, by means of telephone conference, videoconference or other means of communications) as deemed necessary by the Co-Chairs but at least once Quarterly through the IND filing for the first allogeneic Licensed Product, and semi-annually thereafter (unless the Parties mutually agree otherwise). The location for in-person meetings, if any, shall alternate between the facilities of the Parties (or such other location as is mutually agreed by the respective Co-Chairs of the JSC). A kick-off meeting of appropriate duration should be scheduled within [[***]] after the Effective Date.

(ii) Preparation of Meetings. In close interaction with the Co-Chairs the Alliance Managers are responsible for the scheduling, planning and preparation of the JSC meetings. Particular responsibilities of the Alliance Managers include:

(1) JSC-aligned scheduling of the regular and additional meetings of the JSC;

(2) preparation of a JSC-aligned meeting agenda; and

(3) providing the JSC members with advance notices for all scheduled meetings, meeting agendas and other relevant materials reasonably in advance of such meeting.

3.6.3.4 Meeting Attendees / Guests. In addition to the members of the JSC, the Co-Chairs of each subcommittee (if any) and a reasonable number of additional representatives of a Party or advisors may attend the meetings of the JSC in a non-voting capacity for the limited purpose

of providing input with respect to a particular matter on the agenda. A list of all representatives of each Party expected to attend the meeting shall be included on the meeting agenda and distributed to the JSC prior to the relevant meeting.

3.6.3.5 Meeting Minutes. Responsibility for preparing the definitive minutes of each meeting of the JSC shall alternate between the Alliance Managers of the Parties. The Alliance Managers shall prepare and circulate a draft of the minutes of each meeting to all members of the JSC for comments within [[***]] Business Days after such meeting. Such minutes shall provide a description, in reasonable detail, of the discussions at the meeting and shall document all actions and decisions approved by the JSC at such meeting. The Parties shall promptly discuss any comments on such minutes and finalize the minutes promptly. Formal joint approval of the minutes should take place no later than the date of the next meeting of the JSC. Meeting minutes for subcommittees are the responsibility of the Co-Chairs of the respective subcommittee.

3.6.3.6 Meeting Costs. Costs incurred by each Party in connection with its participation at any meetings of the JSC shall be borne [[***]].

3.6.3.7 Decision Making by the JSC. Decisions of the JSC required to be made by this Agreement shall be made by vote, with each Party's voting representatives on the JSC collectively having one (1) vote. No vote may be taken unless at least one (1) of each Party's representatives participates.

3.6.3.8 Limited Powers of the JSC. The JSC shall have only the powers assigned expressly to it in this Agreement, and shall not have the power to (i) determine any issue in a manner that would conflict with the express terms and conditions of this Agreement; or (ii) modify or amend the terms and conditions of this Agreement subject to the JSC's right to agreeing on non-material modifications to the Collaboration Plans. In furtherance thereof, each Party shall retain the rights, powers and discretion granted to it under this Agreement and no such rights, powers or discretion shall be delegated or vested in the JSC.

3.6.4 Subcommittees. The JSC shall have the right to establish and disband subcommittees as deemed necessary by the JSC depending on the scope, nature and phase of the alliance described in this Agreement. When establishing such subcommittees, the JSC shall specify the composition, responsibilities and duration of such subcommittee. Unless specified at the time a subcommittee is established by the JSC, the provisions of Section 3.6.3 shall apply *mutatis mutandis* to each such subcommittee formed pursuant to this Section 3.6.4.

3.7 Escalation.

3.7.1 If any subcommittee established by the JSC is unable to decide or resolve unanimously any matter properly presented to it for action within [[***]] days of such matter being referred to it for action, at the written request of either Party, the issue shall be referred to the JSC who shall meet within [[***]] Business Days (in person, by means of telephone conference, videoconference or other means of communications) and attempt in good faith to resolve such issue (subject only to, in the case of Atara, approval of its Executive Sponsor

or, in the case of Bayer, approval of the applicable management board, if required).

3.7.2 If the JSC is unable to decide or resolve unanimously any matter properly presented to it for action within [[***]] Business Days of such matter being referred to it for action, at the written request of either Party, the issue shall be referred to the Executive Sponsors who shall meet within [[***]] Business Days (in person, by means of telephone conference, videoconference or other means of communications) and attempt in good faith to resolve such issue (subject only to, in the case of Atara, approval of its board of directors or, in the case of Bayer, approval of the applicable management board, if required). Notwithstanding the foregoing, if the Executive Sponsors cannot resolve such matter within [[***]] Business Days of the date such matter is first referred to them, then, [[***]]:

[[***]];

(ii) [[***]];

(iii) notwithstanding any other provision of this Agreement to the contrary, [[***]]; and

(iv) notwithstanding any other provision of this Agreement to the contrary, [[***]].

In each case, [[***]].

3.8 Termination of the JSC. The JSC shall continue to exist until the latter of: (i) the [[***]]; or (ii) [[***]]

ARTICLE 4
DEVELOPMENT

4.1 Responsibility. With the exception of the ATA2271 Phase 1 Clinical Trial and any other Phase 1 Clinical Trial relating to ATA2271 mutually agreed between the Parties after the Effective Date, and subject to the terms and conditions of this Agreement, Bayer shall be solely responsible for the Development of the Licensed Cell Therapeutics and / or Licensed Products in the Field in the Territory, at Bayer's sole discretion (subject to Section 4.4) and Bayer's sole expense, including for the avoidance of doubt:

4.1.1 determining, planning and implementing the Development plans and strategies for the Licensed Cell Therapeutic and / or Licensed Product; and

4.1.2 conducting, and determining the timing and scope of and schedule for, all Clinical Trials related to the Licensed Cell Therapeutic and / or Licensed Product (including performing cell selection for allogeneic Licensed Products, which, for clarity, Atara is not responsible to perform), in all cases, whether performed by or on behalf of Bayer or any other Bayer Party or Third Party appointed by Bayer.

4.2 Atara's ATA2271 Development Responsibilities.

4.2.1 Atara (in collaboration with MSK) will [[***]] continue, and will [[***]] cause MSK to continue, [[***]] the ATA2271 Phase 1 Clinical Trial in the manner

outlined within the ATA2271 Plan and any other Phase 1 Clinical Trial relating to ATA2271 in the manner pre-agreed upon (including with respect to any financial terms) with Bayer. Atara will report on its activities under such Phase 1 Clinical Trial and results thereof both through written reports and through oral communication (including via the JSC), and shall provide Bayer deliverables of such activities and results, each with information, frequency, within the timelines and with a format as specified in the relevant ATA2271 Plan. This includes that Atara will submit to Bayer all Regulatory Documentation and all other study data relating to the ATA2271 Phase 1 Clinical Trial within due course, but in no event later than within [[***]] Business Days after such documents and data are received or generated by Atara. Upon request of Bayer, Atara will enable Bayer scientists to participate as observing members in any material development-related activities of Atara and to the extent that Atara has the right to do so, any material development-related activities of MSK, said participation being subject to MSK's approval. Atara will [[***]] obtain such approval from MSK and will, upon Bayer's written request, inform Bayer about the steps taken to obtain such MSK approval and the status of the approval process.

4.2.2 After completion of [[***]], Bayer shall be solely responsible, at its sole discretion, for continuing the ATA2271 clinical development and Atara will take all steps reasonably required to enable Bayer to take over such program in a mutually agreeable manner.

4.2.3 For clarity, all materials, documents and data generated within the ATA2271 clinical development, as described above, form part of the Licensed Technology and, consequently, Bayer has the exclusive right to use such materials, documents and data for Exploitation of Licensed Cell Therapeutics and Licensed Products in the Field in the Territory.

4.3 Cooperation of Atara. Bayer acknowledges Atara's expertise and experience in preclinical development, CMC/manufacturing, regulatory matters and early clinical development for cell therapy products. Therefore, Atara shall reasonably cooperate with and provide assistance to Bayer in connection with Bayer's Development activities with respect to the Licensed Cell Therapeutic and / or Licensed Product, in accordance with Section 2.6.3.

4.4 Efforts.

4.4.1 Bayer shall use Commercially Reasonable Efforts to Develop [[***]] in each of the Major Market countries. For clarity, Bayer shall not have any Development obligations for any additional indication or in any other country.

4.4.2 Without limiting the foregoing, with respect to Licensed Products covered by Licensed Patents in-licensed by Atara under the NIH Upstream License, the following applies:

(i) "Commercially Reasonably Efforts", for the purposes of this provision, shall include [[***]].

(ii) Bayer will provide Atara written [[***]] reports on its product development progress [[***]]within [[***]] days after the end of each Calendar Year. These progress reports shall include, but not be limited to: [[***]]. Bayer agrees to provide any additional information reasonably required by the NIH to

evaluate Bayer's compliance with its diligence obligation under the NIH Upstream License.

(iii) Bayer shall report to Atara the dates for achieving the [[***]] and the First Commercial Sale in each country in the Territory within [[***]] days of such occurrences.

ARTICLE 5
REGULATORY

5.1 General responsibility. Except as specifically set forth in Section 5.2, subject to the terms and conditions of this Agreement, Bayer shall be solely responsible for, at Bayer's sole expense (except as set forth elsewhere in this Agreement, including its Exhibits):

5.1.1 determining, planning and implementing the regulatory plans and strategies for the Licensed Product(s);

5.1.2 preparing and maintaining the "Company Core Data Sheet" for the Licensed Product(s);

5.1.3 either directly or through its Affiliates or Sublicensees, making all regulatory filings with respect to the Licensed Product(s);

5.1.4 preparing, filing, and holding all INDs and Regulatory Approvals throughout the Territory in the name of either itself or its Affiliates or Sublicensees, with the exception of the IND data package up to IND Readiness for ATA3271, which Atara shall provide to Bayer; and

5.1.5 all interactions with Regulatory Authorities with respect to the Licensed Product(s), including all submissions, meetings and discussions in all cases, whether performed by or on behalf of Bayer or any other Bayer Party or Third Party appointed by Bayer.

5.2 Responsibility for ATA2271 Phase 1 Clinical Trial . Atara (in collaboration with MSK) shall be [[***]] responsible for all regulatory filings with respect to the ATA2271 Phase 1 Clinical Trial as well as the IND relating to ATA2271, up to [[***]]. Sections 4.2.1 – 4.2.3 apply *mutatis mutandis*.

5.3 Cooperation of Atara. Atara shall [[***]] cooperate with and provide assistance (excluding any research or development work, which is addressed in Section 2.6.3, or any drafting with respect to the content of any IND or BLA) to Bayer solely to address regulatory questions during the review of IND or BLA filings or any other filing with a Regulatory Authority, in each case with respect to a Licensed Product, including by promptly executing any required documents, providing access to personnel and providing all such documentation as Bayer may reasonably require and request from time to time, as well as by [[***]] to ensure that Bayer Parties obtain from MSK all authorizations that may be required to fully benefit from the results of any ATA2271 clinical development (including any cross references to the ATA2271 IND in an IND filing for another Licensed Cell Therapeutic) Atara shall cooperate with the Bayer Parties, as may be requested by Bayer, in connection with any inspection by a Regulatory Authority relating to a Licensed Product including any inspection prior to approval of an BLA for any Licensed Product.

5.4 Assignment of Regulatory Documentation. Notwithstanding Atara's earlier reporting obligations pursuant to Section 4.2 of this Agreement, upon [[***]] Atara shall assign, and shall [[***]] cause MSK to assign, to Bayer all of its and MSK's rights, title and interest in and to all Regulatory Documentation, including, to the extent permitted by Law, all Regulatory Approvals and INDs Controlled by Atara or MSK as of the Effective Date and from time to time during the term of this Agreement. Atara shall, and shall [[***]] cause MSK to, duly execute and deliver, in each case within [[***]] Business Days of the Effective Date, such instruments, and shall do, and shall [[***]] cause MSK to do, such acts and things, including the filing of such assignments, agreements, documents and instruments as Bayer may reasonably request from time to time in connection with Bayer's rights under this Section 5.4. Atara shall also provide to Bayer all updates to such Regulatory Documentation within [[***]] Business Days of their first becoming available to Atara.

5.5 Rights of Reference.

5.5.1 Right of Reference for Atara. Atara and its Affiliates and their designees will have, and Bayer (on behalf of itself and its Affiliates) hereby grants, and shall cause all other Bayer Parties to grant, to Atara and its Affiliate and their designees, access and a "Right of Reference or Use" as that term is defined in 21 C.F.R. § 314.3(b) (without any further action required on the part of Atara, its Affiliates or contractors, whose authorization to file this consent with any Regulatory Authority is hereby granted) in connection with the development of products of Atara and its Affiliates to all Regulatory Documentation relating to any Licensed Cell Therapeutic or Licensed Product, or any components thereof, controlled by or on behalf of any Bayer Parties and all data contained or referenced therein, and agrees to sign and cause the other Bayer Parties to sign, any instruments reasonably requested by Atara in order to effect such grant.

5.5.2 Right of Reference for Bayer. Atara hereby grants and shall [[***]] cause MSK and Atara's and MSK's Affiliates grant to Bayer Parties a "Right of Reference or use" as that term is defined in 21 C.F.R. § 314.3(b), without any further action required on the part of Bayer Parties or their contractors (whose authorization to file this consent with any Regulatory Authority is hereby granted), in connection with the development of Licensed Cell Therapeutics or Licensed Products to all Regulatory Documentation relating to ATA2271 or any components thereof and all data contained or referenced therein, and agrees to sign, and shall [[***]] cause MSK and Atara's and MSK's Affiliates to sign, any instruments reasonably requested by Bayer Parties in order to effect such grant. If Bayer wishes to obtain a "Right of Reference or use" to any other regulatory filing Controlled by Atara, Bayer shall so notify Atara in writing, and, provided that Atara has the rights necessary to grant Bayer any such rights and that such additional Right of Reference or use is reasonably required to Develop the Licensed Cell Therapeutic or Licensed Product without any unnecessary delay or significant additional cost, Atara shall consider, in good faith, Bayer's request for an additional grant of such rights to Bayer and shall not unreasonably withhold its consent to such request.

ARTICLE 6
COMMERCIALIZATION

6.1 Commercialization.

6.1.1 Responsibility. Subject to the terms and conditions of this Agreement, Bayer shall be solely responsible for the Commercialization of the Licensed Product in the Field in the Territory at Bayer's sole expense (except as set forth elsewhere in this Agreement), including, for the avoidance of doubt, the planning and implementation, distribution, booking of sales, pricing and reimbursement, in all cases, whether performed by or on behalf of Bayer or any other Bayer Party or Third Party appointed by Bayer.

6.1.2 Efforts. Bayer shall use Commercially Reasonable Efforts to Commercialize [[***]] in each Major Market.

6.1.3 Additional Restrictions relating to NIH Upstream License. Solely with respect to Licensed Products that are covered by Licensed Patents under the NIH Upstream License, Bayer shall use Commercially Reasonable Efforts to (i) make Licensed Products reasonably accessible to the United States public, (ii) make reasonable quantities of Licensed Products available to patient assistance programs, (iii) develop educational materials (e.g., brochures, website, etc.) directed to patients and physicians detailing the Licensed Products or medical aspects of the prophylactic and therapeutic uses of the Licensed Products, and (iv) upon request of Atara or NIH, supply NIH with inert samples of the Licensed Products or their packaging for educational and display purposes only, provided that, unless explicitly stated otherwise in the request, such samples or packaging shall be mailed to: [[***]]. Furthermore, solely with respect to Licensed Patents under the NIH Upstream License that cover Licensed Products (if any), Bayer and all Bayer Parties agree to mark the Licensed Products, or their packaging sold in the United States with the applicable U.S. patent numbers and similarly to indicate "“Patent Pending"” status of such Licensed Patents.

6.1.4 Commercialization Plan. At least [[***]] days in advance of the anticipated [[***]] of a Licensed Product in [[***]] in the Territory, Bayer shall prepare and submit to Atara a written plan setting forth the activities to be undertaken with respect to the Commercialization of Licensed Products (the "Commercialization Plan"), which shall describe in reasonable detail Bayer's Commercialization activities for the rest of the relevant [[***]]. Thereafter, Bayer shall prepare and submit to Atara for the rest of the term of the Agreement a Commercialization Plan on any new [[***]] no later than [[***]] days after [[***]].

ARTICLE 7
MANUFACTURING

7.1 Except as specifically set forth in Sections 7.2 and 7.3, subject to the terms and conditions of this Agreement, Bayer shall be solely responsible for and bear all costs of the manufacture, storage, distribution and supply of the Licensed Products in the Field in the Territory.

7.2 Notwithstanding the foregoing, Atara will be responsible for the performance of the CMC Activities in accordance with the CMC Plan.

7.3 Within [[***]] days following the Effective Date, the Parties shall enter into a Phase 1 – 2 Manufacturing and Supply Agreement pursuant to which [[***]]. The key terms of the Phase 1 – 2 Manufacturing and Supply Agreement and the Phase 3 Manufacturing and Supply Agreement are set forth in Exhibit 7.3, attached hereto. Such Manufacturing and Supply Agreements shall include as an annex a Quality Agreement containing terms and conditions regarding quality assurance/quality control and compliance with cGCP, cGLP and cGMP, as applicable.

ARTICLE 8
PHARMACOVIGILANCE

8.1 General. Both Parties agree to promptly exchange all information that relates to the safety of the Licensed Product and to comply with all Laws relating to the Licensed Product concerning drug safety.

8.2 Pharmacovigilance Agreement. In furtherance of Section 8.1, the Parties shall negotiate and execute a pharmacovigilance agreement within [[***]] days of the Effective Date. Bayer will create and maintain a master drug safety database which shall cross-reference adverse events relating to the Licensed Product occurring anywhere in the world. Bayer shall be the sole owner of the master drug safety database. Atara shall submit all data collected by it with respect to adverse events relating to the Licensed Product to Bayer in accordance with the timelines set forth in the pharmacovigilance agreement. After transfer of the [[***]] to Bayer, Bayer shall be responsible for all reporting of adverse events pursuant to Law with respect to the Licensed Products.

ARTICLE 9
FINANCIAL PROVISIONS

9.1 License Upfront Payment. In consideration of the licenses granted by Atara to Bayer under the Agreement, Atara shall be entitled to invoice Bayer for a one-time license upfront payment of US$45,000,000 (in words: forty-five million U.S. dollars) (the "Upfront License Payment") on or after the Effective Date, which Upfront License Payment reflects the aggregate value of the Licensed Technology as set forth in Exhibit 9.1.

9.2 Reimbursement Upfront Payment. As reimbursement for Atara's expenses for activities identified as [[***]] under the Collaboration Plans, Atara shall be entitled to invoice Bayer for a one-time reimbursement upfront fee of US$15,000,000 (in words: fifteen million U.S. dollars) on or after the Effective Date.

Should the preclinical development of [[***]] be stopped early ([[***]]), then any unused portion of such reimbursement upfront fee will be used for [[***]], provided that the decision on the [[***]] and the related Research Plan shall be made by the JSC pursuant to Section 3.6.3.2(iv).

9.3 Remuneration for Further Research Activities. In consideration for the conduct of the activities identified as [[***]] under the Research Plan, Atara shall be entitled to invoice Bayer for an amount equal to US$5,000,000 (in words: five million U.S. dollars) in the following installments:

[[***]] percent [[***]] upon initiation of any one of the activities identified as [[***]] under the Research Plan;

(ii) [[***]] percent [[***]] upon Atara's delivery of Atara's qualification report following [[***]], such report, as applicable, to be consistent with the table of contents set forth in Exhibit 1.72 and to be in a form consistent with the reporting template identified as "Pre-clinical Technical Report" disclosed by Atara to Bayer prior to the Effective Date; and

(iii) [[***]] percent [[***]] upon Atara's delivery of the last qualification or study report, as applicable, following [[***]], such report, as applicable, to be consistent with the table of contents set forth in Exhibit 1.72 and to be in a form consistent with the reporting template identified as "Preclinical Technical Report" disclosed by Atara to Bayer prior to the Effective Date.

9.4 Milestones.

9.4.1 Development and Regulatory Milestones for Licensed Products other than [[***]] Licensed Products. Upon the first (1st) achievement of any of the following milestone events for a human therapeutic Licensed Product that is not an [[***]] Licensed Product, Atara shall be entitled to invoice the following one-time payments to Bayer:

[[***]]

For [[***]] met with a [[***]] Licensed Cell Therapeutic or Licensed Product that is [[***]], the respective milestone payments above shall become due, each with an [[***]]. For [[***]] met with a [[***]] Licensed Cell Therapeutic or Licensed Product that is a [[***]], the respective milestone payments above shall become due, each with an [[***]]. For [[***]] met with a [[***]] Licensed Cell Therapeutic or Licensed Product that is a [[***]], the respective milestone payments above shall become due, each with an [[***]].

For clarity, [[***]] will be deemed to have been met with a Systemic Product [[***]] upon [[***]].

Notwithstanding Section 9.4.5.1, in the event a Phase 2 Clinical Trial seeking accelerated Regulatory Approval is initiated, the milestone payments under [[***]] shall be due upon the earliest of [[***]]. Bayer shall provide written notice to Atara of any of the events described in clauses (a) – (c) of the preceding sentence within [[***]] days following the occurrence of the relevant event.

For clarity, any inference or reference to a "first, "second" or "third" Tumor Type above, shall be construed to mean the "first", "second" or "third" Tumor Type that achieves the applicable milestone event, regardless of how many other Tumor Types have been previously pursued with respect to the same or other Licensed Products without achieving the applicable milestone event; this means, [[***]].

In the event that [[***]], Atara is entitled to invoice an amount of [[***]] to Bayer together with [[***]]. Bayer shall make such payment within [[***]] days from [[***]]. For clarity, [[***]]. In the event that, following such payment by Bayer, [[***]], then [[***]].

9.4.2 Development and Regulatory Milestones for [[***]] Licensed Products. Upon the first achievement of any of the following milestone events for the first human therapeutic [[***]] Licensed Product (including a Licensed Product comprising [[***]]), [[***]] Atara shall be entitled to invoice the following one-time payments to Bayer:

[[***]]

9.4.3 Sales Milestones. Upon the first (1st) occurrence of aggregate annual Net Sales set out below with respect to a Licensed Product in the Field in the Territory, Bayer shall make the following payments to Atara:

[[***]]

9.4.4 Reporting on Milestone Achievement and Payment. Bayer shall provide written notice to Atara of (a) any occurrence of any of the development milestones set forth above no later than [[***]] days following the occurrence of the relevant milestone, and (b) any occurrence of any of the sales milestones set forth above with the royalty report to be provided by Bayer for the respective Quarter pursuant to Section 9.5.5, and shall, upon receipt of an invoice pursuant to Section 9.6, make the associated milestone payments in accordance with Section 9.6.

9.4.5 Limitation on Milestones. For the avoidance of doubt:

9.4.5.1 The Development and Regulatory Milestones are intended to be successive on a country-by-country or region-by-region basis, as applicable; in the event that Bayer skips any of such milestones on a country-by-country or region-by-region basis, as applicable, Bayer shall be deemed to have achieved such skipped milestone when it achieves the next successive Development and Regulatory Milestone for the relevant Licensed Product.

9.4.5.2 No milestone payment will be made more than once per Licensed Product (as opposed to another Licensed Product);

9.4.5.3 No additional milestone payments shall be due in respect of subsequent or repeated achievements of any milestone(s), irrespective of the number of countries in which such milestone has been achieved, or in respect of any further indications not explicitly specified within the milestones listed under Section 9.4.1 and 9.4.2 above;

9.4.5.4 No additional milestone payments shall be due in respect of any Combination Licensed Product where the milestone has already been paid on a Licensed Product; and

9.4.5.5 Each milestone payment shall be due whether the corresponding milestone event has been achieved by Bayer, its Affiliates or Sublicensees.

9.5 Royalties.

9.5.1 Royalty Rates. Subject to the terms and conditions set forth in this Section 9.5 and elsewhere in this Agreement, Bayer shall pay to Atara royalties on

aggregated annual Net Sales of each such Licensed Product sold in the Territory during the Royalty Term in the following amount:

[[***]]

For the avoidance of doubt, the cumulative Net Sales value shall be based on cumulative Net Sales from the start of a Calendar Year and reset on an annual basis.

For the avoidance of doubt, no royalties shall be due or payable on samples of Licensed Product or clinical trial materials or other transfers or dispositions of the Licensed Product for charitable, promotional, pre-clinical, clinical, manufacturing, testing or qualification, regulatory or governmental purposes.

9.5.2 Sublicense Income for an [[***]] Licensed Product. In addition to the associated milestones and royalties outlined above, Bayer shall pay to Atara the following percentage of all Sublicense Income:

9.5.2.1 [[***]] percent [[***]] if at the time of execution of the sublicense agreement the status of the project is [[***]]; or

9.5.2.2 [[***]] percent [[***]] if [[***]].

9.5.3 Reduction in Royalties.

9.5.3.1 No Valid, Practiced Claim. If, during the Royalty Term, in any particular country in the Territory, a Licensed Product is not covered or claimed by a Valid, Practiced Claim, then the royalties that would otherwise have been payable on Net Sales of such Licensed Product in such country under this Agreement shall be reduced by [[***]] percent [[***]] as from the first Quarter in which there is no Valid, Practiced Claim. The calculation of the royalty reduction shall be conducted separately for each Licensed Product in each country.

9.5.3.2 Compulsory Licenses. [[***]].

9.5.3.3 Biosimilar Product. [[***]].

9.5.3.4 Third Party Technology. Subject to the last sentence of this Section 9.5.3.4, if during the term of this Agreement Atara or Bayer becomes aware of a Third Party Patent Right (excluding for clarity any Patent Rights controlled by MSK) and where Bayer reasonably determines, in the absence of a license to such Third Party Patent Right, such Third Party Patent Right would be infringed by the Exploitation of the Licensed Cell Therapeutic and / or Licensed Product (solely to the extent consisting of an Atara Cell Therapeutic), Bayer (itself or through any other Bayer Party) may obtain a license to such Third Party Patent Right in any country in the Territory. Atara agrees to fully co-operate with Bayer in any licensing of such rights by Bayer, as Bayer may reasonably request. In the event that Bayer pays any [[***]] in consideration solely for a license to such Third Party Patent Right for the Exploitation of the Licensed Cell Therapeutic and / or Licensed Product (solely to the extent consisting of an Atara Cell

Therapeutic) (subject to the limitation specified in sentence 1 of this Section 9.5.3.4), as applicable, [[***]]payable by Bayer to Atara pursuant to Section 9.5.1 shall be reduced by [[***]] percent [[***]] of the amounts actually paid to such Third Party in such country as consideration solely for any such license to such Third Party Patent Rights for such purpose.

9.5.3.5 For clarity, Atara shall be solely responsible to cover any third party royalty obligations that Atara may have under the Existing Agreements in relation to this license.

9.5.4 Notwithstanding anything to the contrary in this Agreement, in no event shall the royalties payable to Atara under Section 9.5.1 be reduced to less than:

9.5.4.1 [[***]]

9.5.5 Royalty Reporting. Starting from the date of First Commercial Sale of the Licensed Product(s) in any country, Bayer shall submit within [[***]] days after the end of each Quarter a good faith, non-binding, preliminary indication of Net Sales achieved within the previous Quarter (such preliminary indication not including any further breakdown, e.g., into countries, Licensed Products). Within [[***]] days of the end of each Quarter, Bayer shall prepare and deliver to Atara a written statement setting forth:

9.5.5.1 Net Sales for that Quarter on a Licensed Product-by-Licensed Product and country-by-country basis;

9.5.5.2 [[***]]; and

9.5.5.3 [[***]];

9.5.5.4 [[***]]; and

9.5.5.5 the associated royalties due to Atara.

Following Atara's receipt of such quarterly statement, Atara shall deliver to Bayer an invoice for the royalties due to Atara, and upon Bayer's receipt of such invoice, Bayer shall make the associated royalty payments in accordance with Section 9.6.2.

9.6 Payments.

9.6.1 Currency. All payments under this Agreement will be made in U.S. dollars. Where the payments due are calculated based on a currency other than U.S. dollars, the amount due will be converted to U.S. dollars using the average quarter to date exchange rate for the applicable quarter as consistently applied per Bayer's internal accounting and reporting process.

9.6.2 Payment Date. The License Upfront Payment, the Reimbursement Upfront Payment, any and all royalties owing from Bayer to Atara under Section 9.5 and the payments owing from Bayer to Atara under Section 9.3, shall be paid by Bayer to Atara within [[***]] days after receipt of invoice, and the milestone payments and any other payment by Bayer shall be made within [[***]] days after receipt of invoice (each a "Payment Date").

9.6.3 All payments due to Atara under this Agreement shall be paid upon the receipt of a respective invoice in U.S. dollars by wire transfer to the following bank account, or to such other bank account specified, at least [[***]] Business Days prior to the applicable Payment Date, in writing by Atara to Bayer:

Account Holder:	[[***]]
Bank Name:	[[***]]
Bank Address, City, and State:	[[***]]
Account No:	[[***]]
Bank Code:	[[***]]
SWIFT (BIC):	[[***]]
Routing Transit Number ABA:	[[***]]

Each invoice for payments shall be sent to:

[[***]]

mentioning such other information required and as may be amended and / or provided by Bayer to Atara from time to time.

Alternatively, each invoice for payments mentioning the aforementioned address and reference may be sent electronically in portable document format (pdf) via email without electronic signature ("pdf-invoicing"), to

[[***]]

thus replacing a corresponding paper form.

9.6.4 Late Payments. All payments not made by [[***]] days after the respective Payment Date set out in this Agreement shall be subject to Late Payment interest at the United States Secured Overnight Financing Rate (SOFR), currently published on Bloomberg screen <SOFRRATE Index>, fixed [[***]] Business Days prior to the respective Payment Date and reset to the prevailing [[***]] month SOFR at monthly intervals thereafter, plus a premium of [[***]] (or the maximum applicable legal rate of interest if lower). Interest shall be calculated based on the actual number of days in the interest period divided by 360 and shall be calculated from the respective Payment Date (inclusive) until the date of payment (exclusive).

9.7 Taxes.

9.7.1 All agreed consideration is exclusive of Value Added TAX (" VAT"). If legally applicable, VAT will be invoiced and has to be paid additionally after receipt of a proper invoice, which meets all legal requirements according to the applicable VAT-law.

9.7.2 Any party required to make a payment pursuant to this Agreement shall be entitled to deduct and withhold from the amount payable the tax for which paying party on behalf of payee is liable under any provisions of tax law. If the withholding tax rate is reduced according to the regulations in the Double Tax Treaty no deduction shall be made or a reduced amount shall be deducted only if paying party is timely furnished with necessary documents by payee issued from the relevant tax authority, certifying that the payment is exempt from tax or subject to a reduced tax rate. Except as otherwise provided in Section 9.6.3,

any withheld tax shall be treated as having been paid by paying party to payee for all purposes of this Agreement. Paying party shall timely forward the tax receipts certifying the payments of withholding tax on behalf of payee. In case paying party must pay, but cannot deduct the withholding tax due to fulfillment and completion of payment obligation by settlement or set-off, payee will pay the withholding tax to the paying party separately. If paying party failed to deduct withholding tax but is still required by tax law to pay withholding tax on account of payee to the tax authorities, payee shall assist paying party with regard to all procedures required in order to obtain reimbursement by tax authorities or, in case tax authorities will not reimburse withholding tax to paying party, payee will immediately refund the tax amount.

9.7.3 Notwithstanding the foregoing, if (a) any party redomiciles or assigns its rights or obligations under this Agreement, (b) as a result of such redomiciliation or assignment, such Party (or its assignee) is required by Law to withhold taxes, or such redomiciliation or assignment results in the imposition of indirect taxes that were not otherwise applicable, from or in respect of any amount payable from such party to the other party under this Agreement, (c) the other Party is despite reasonable efforts not able to obtain an exemption or reduction from such additional tax; and (d) such withholding taxes or indirect taxes which cannot be exempted from tax by the other Party with reasonable efforts exceed the amount of withholding taxes or indirect taxes that would have been applicable had such redomiciliation or assignment not occurred, then any such amount payable shall be increased to take into account such withholding taxes or indirect taxes as may be necessary so that, after making all required withholdings (including withholdings on the additional amounts payable) and / or paying such indirect taxes, as the case may be, the payee party (or its assignee) receives an amount equal to the sum it would have received had no such increased withholding been made and no such Indirect Taxes had been imposed. The obligation to pay additional amounts pursuant to the preceding sentence shall not apply, however, to the extent such increased withholding tax or indirect taxes would not have been imposed but for the assignment by the payee party of its rights or obligations under this Agreement or the redomiciliation of such payee party outside of the United States.

ARTICLE 10
BOOKS, RECORDS, AUDIT

10.1 Records. Bayer shall keep, and shall procure that all Bayer Parties keep, true and accurate records and books of account containing all data necessary for the calculation of the amounts payable by it to Atara pursuant to this Agreement. Those records and books of account shall be kept for

(i) with respect to Licensed Products that are covered by Licensed Patents under the MSK MSLN License and/or that are containing, derived from or made using BioVec Products (as such term is defined in the BioVec Upstream License), [[***]] years;

(ii) with respect to other Licensed Products than those listed under a) above, if they are covered by Licensed Patents under the NIH Upstream License, [[***]] years;

(iii) with respect to other Licensed Products than those listed under a) and b) above, if they are covered by Licensed Patents under the MSK PD1-DNR License and/or MSK CAR-T License, [[***]] years; and

(iv) with respect to other Licensed Products than those listed under a), b) and c) above, [[***]] years,

in each case following the end of the period to which they relate.

10.2 Audits. To validate Bayer's compliance with its obligations under or in connection with this Agreement, Atara may, during the course of this Agreement and for [[***]] year after termination of this Agreement, appoint an independent certified public accountant, at Atara's expense (except as otherwise contemplated below), to carry out an audit of Bayer's records from time to time on behalf of Atara. The auditors selected by Atara shall be subject to acceptance by Bayer, such acceptance not to be unreasonably withheld or delayed. Any such audit shall be conducted pursuant to the following terms and conditions:

10.2.1 Any such audits shall be conducted during regular business hours at Bayer's premises upon [[***]] days' prior written notice by Atara and shall not interfere unreasonably with the Bayer's business activities;

10.2.2 The auditor may inspect records for up to [[***]] years after the end of the period to which they pertain;

10.2.3 Audits may not take place more than [[***]] per Calendar Year and no period may be audited more than [[***]];

10.2.4 Prior to the audit taking place, auditor shall undertake to Bayer that they shall keep all information confidential and shall not disclose any information to Atara (except as set forth in Section 10.2.5 below) or any Third Party, and shall only use the same for the purpose of calculations which they need to perform hereunder;

10.2.5 Details of the auditor's findings (including, for the avoidance of doubt, monetary values and supporting calculations) shall not be shared with Atara except in the form of a summary report (and, in any event), the summary report shall be communicated to Bayer before being shared with Atara and Bayer shall be given a period of [[***]] Business Days to review and respond to the auditor's findings before the summary report may be provided to Atara (such reports to include Bayer's response to the findings);

10.2.6 The auditor shall not be permitted to include any extrapolation calculations in their calculation of amounts allegedly underpaid to Atara;

10.2.7 If an audit reveals that Bayer has underpaid royalties due, Atara may invoice Bayer for the underpaid amount;

10.2.8 If an audit reveals an underpayment in excess of [[***]] percent [[***]] of the fees for the period subject to review by Atara, then Bayer shall pay the reasonable costs of the auditors within [[***]] days of Atara's receipt of the summary report in Section 10.2.5 notifying Bayer that the audit has been completed; for clarity, any underpayment shall be subject to Late Payment interest in accordance with Section 9.6.4; and

10.2.9 If an audit reveals that Bayer has overpaid any royalties (the amount of each such overpayment, an "Overpayment Amount"), then, as may be requested by Bayer, (i) the Overpayment Amount will be credited against any future amounts payable to Atara by any Bayer Party, or (ii) Atara shall reimburse

Bayer for such Overpayment Amount (or any portion thereof that has not been credited as set out in the foregoing clause within [[***]] days after the date such auditor reveals to any Bayer Party, or any Bayer Party reveals to Atara, such Overpayment Amount; for clarity, no interest shall become due on the Overpayment Amount from the date such payment was received by Atara until the due date after the overpayment was revealed.

ARTICLE 11
INTELLECTUAL PROPERTY

11.1 Inventorship. Notwithstanding the provisions of Section 21.2, inventorship of any inventions created, generated, invented, discovered or conceived by, or on behalf of, a Party or any of its Affiliates, whether solely or jointly with any Third Party (or with the other Party or any of its Affiliates), in the course of the Collaboration Activities shall be determined by application of United States patent law pertaining to inventorship.

11.2 Ownership.

11.2.1 Intellectual Property owned by Atara.

11.2.1.1 As between the Parties, Atara shall retain all right, title and interest in and to, and shall [[***]] own, [[***]] Licensed Technology (including [[***)] Atara Results) with the exception of [[***]] Results.

11.2.1.2 No right or license is granted to Bayer hereunder with respect to any Licensed Technology, other than the licenses and rights granted to Bayer pursuant to Section 2.1.

11.2.2 Intellectual Property owned by Bayer.

11.2.2.1 As between the Parties, Bayer will retain all right, title and interest in and to, and shall [[***]] own, [[***]]Bayer Results, Joint Results, Bayer Background Technology and Bayer Background Improvements.

11.2.2.2 To the extent any copyrights constituting Bayer Background Improvements generated in whole or in part by Atara or any Joint Results, cannot be assigned by Atara to Bayer under applicable Law, Atara hereby grants Bayer an exclusive, irrevocable, perpetual, fully paid-up, royalty-free, world-wide license, with the right to grant sublicenses, to Exploit such copyrights and Joint Results for any and all purposes.

11.2.2.3 No right or license is granted to Atara hereunder with respect to any Bayer Results, Bayer Background Technology, Bayer Background Improvements other than the licenses and rights granted to Atara pursuant to Article 2.

11.2.2.4 For clarity, as between the Parties, Bayer shall [[***]] own all intellectual property rights conceived and reduced to practice in the conduct of Bayer's activities [[***]] in exercise of the licenses granted by Atara to Bayer under this Agreement (such intellectual property rights, the "Bayer Improvement IP") and Bayer may file,

prosecute, maintain and enforce Patent Rights on such Bayer Improvement IP as it deems appropriate.

11.2.3 Cooperation and Support. If and as may be reasonably requested by the other Party, each Party shall (and shall, as applicable, cause each of its employees, officers, directors, consultants or contractors to) duly execute and deliver (or cause to be duly executed and delivered) such agreements and other documents, including assignment agreements, and take such further actions (or cause such further actions to be taken), to make such assignment(s) as may be reasonably necessary or desirable to effect the ownership rights set out in this Section 11.2 and to evidence, confirm, record and perfect any such assignment(s).

11.3 Each Party will notify the other Party promptly in writing of any Result that is or might in its reasonable assessment be patentable (any such Result an "Invention") and shall, upon request of the other Party, provide the other Party with a Complete Invention Disclosure within a period of [[***]] days.

11.4 Prosecution and Enforcement of Bayer Results and Bayer Background Improvements. Bayer has the exclusive right but no obligation to file, prosecute, maintain and enforce, in its own name, at its sole discretion and expense patent applications or other intellectual property rights on Bayer Background Improvements and Bayer Results in or for any country. Atara will, at Bayer's request, provide and execute all necessary documents including declarations/assignments and cooperate with Bayer, as reasonably required, to enable Bayer to conduct the drafting, filing and prosecution of such applications and to defend and enforce such rights.

11.5 Filing, Prosecution and Maintenance of Joint Results Patents.

11.5.1 Bayer shall have the first right, but not the obligation, to prepare, file, prosecute and maintain the Joint Results Patents worldwide. Bayer shall keep Atara reasonably informed of all material steps with regard to the preparation, filing, prosecution and maintenance of the Joint Results Patents, including by providing Atara with a copy of material communications to and from any patent authority in the Territory regarding such Joint Results Patents, and Atara shall be copied on all material correspondence with Bayer's patent counsel with respect thereto. Bayer shall provide Atara drafts of any material filings or responses to be made to such patent authorities in the Territory in advance of submitting such filings or responses so as to allow for a reasonable opportunity for Atara to review and comment thereon, and Bayer shall consider in good faith and discuss Atara's requests and suggestions with respect to Bayer's drafts and with respect to strategies for filing and prosecuting the Joint Results Patents. Bayer shall consult with Atara reasonably prior to (but at least [[***]] days prior to) taking or failing to take any substantive action (including making any filings) with respect to the Joint Results Patents, including any action that would materially affect the scope or validity of rights under any patent applications or patents with the Joint Results Patents (such as substantially narrowing or canceling any claim without reserving the right to file a continuing or divisional patent application, abandoning any patent or not filing or perfecting the filing of any patent application in any country). If Bayer decides not to prepare, file, prosecute or maintain a Joint Results Patent in a country in the Territory, Bayer shall provide reasonable prior written notice to Atara of such intention (which notice shall, in any event, be given no later than [[***]] days prior to the next deadline for any action that may be taken with respect to such Patent Right in such country), Atara shall thereupon have the

option, in its sole discretion to assume the control and direction of the preparation, filing, prosecution and maintenance of such Joint Results Patent. Upon Atara's written exercise of such option, Atara shall assume the responsibility and control for the preparation, filing, prosecution and maintenance of such Joint Results Patent. In such event, Bayer shall promptly provide Atara with the appropriate documents for such transfer of responsibility and control and reasonably cooperate with Atara in such country, including by (i) executing all papers and instruments, or requiring its employees or contractors to execute such papers and instruments, so as to enable Atara to apply for and to prosecute the Joint Results Patents in the Territory, and (ii) promptly informing Atara of any matters coming to Bayer's attention that may materially affect the preparation, filing, prosecution or maintenance of any such Joint Results Patent. The Parties shall [[***]] costs associated with filing and prosecuting the Joint Results Patents.

11.6 Filing, Prosecution and Maintenance of Licensed Patents.

11.6.1 Atara shall be responsible, and [[***]] to file, prosecute and maintain the Licensed Patent Rights, through a qualified and recognized patent counsel, at least in the countries listed in Exhibit 11.6.1, and shall [[***]]. Atara shall inform Bayer of any materially relevant communication with patent offices relating to the filing, prosecution or maintenance of such Licensed Patent Rights. Furthermore, Atara shall provide Bayer with copies of any materially relevant documents or correspondence with patent offices or any other documents which may be important for any action to be taken in a timely manner and no less than [[***]] days prior to any relevant deadline, provided such time is available. Bayer shall communicate its comments on the same to Atara on the earlier of: [[***]] days from the date the information was received by Bayer; and no less than [[***]] days before the deadline, or intended deadline, for the action to be taken, provided that such period is available, and Atara shall consider in good faith the comments provided by Bayer.

11.6.2 If Atara determines that it is not commercially reasonable to file, nationalize (if applicable) or further prosecute a Licensed Patent Right in any country listed in Exhibit 11.6.1, Atara shall provide reasonable advance written notice ("Cessation Notice") to Bayer of such determination (which notice shall, in any event, be given no later than [[***]] days prior to the next deadline for any action that may be taken with respect to such Licensed Patent Right in such country). Upon receipt of such notice, Bayer may object to such determination within [[***]] days and request that Atara continue filing or prosecuting such Licensed Patent Right. If the Parties cannot agree upon whether Atara will or will not continue to file or prosecute such Licensed Patent Right, such dispute will be referred to the [[***]] for dispute resolution in accordance with Section 20.1. During the dispute resolution process, Atara will continue to file and / or prosecute, as applicable, such Licensed Patent Right at Atara's cost. If, following dispute resolution in accordance with Section 20.1, the Parties determine that Atara's decision was appropriate, Bayer will [[***]] with the filing and / or prosecution of such Licensed Patent Right following Atara's delivery of the applicable Cessation Notice to Bayer.

11.6.3 The Parties acknowledge and agree that this Section 11.6 is subject to the terms and conditions of the Existing Agreements, but solely with respect to those Patent Rights within the Licensed Patents Rights that are owned by MSK or NIH and licensed to Atara under the Existing Agreements.

11.7 Patent Enforcement.

11.7.1 Notice. If any Licensed Patent Right is or might be infringed by a Third Party making, using or selling a Competing Product in the Field (each a "Field Infringement"), the Party first having knowledge thereof shall promptly notify the other Party in writing. Such notice shall set forth the facts of the Field Infringement in reasonable detail.

11.7.2 Enforcement.

11.7.2.1 Atara shall have the first right (but not the obligation), by counsel of its own choice and at its sole expense, to institute, prosecute and control the enforcement or defense of Licensed Patent Rights, except that, subject to Section 2.1.3 of this Agreement, Bayer shall have the first right (but not the obligation), by counsel of its own choice and at its sole expense, to institute, prosecute and control the enforcement of any Licensed Patent Rights within the Exclusive Technology against any Field Infringements. Prior to undertaking any such action to enforce or defend such Licensed Patents Rights, the Party controlling the suit or action ("Prosecuting Party") shall notify the other Party in writing. If the Prosecuting Party requests that the other Party join any such action, the other Party shall do so and the other Party hereby agrees that counsel for the Prosecuting Party shall also represent the other Party in such action. The other Party shall have the right, at its own expense, to also be represented in any action by counsel of its own choice. For the avoidance of doubt, should the other Party partake in any such action brought by the Prosecuting Party, either at the Prosecuting Party's request or otherwise, the Prosecuting Party shall retain control of the proceeding and shall have [[***]]related thereto.

11.7.2.2 In the event that the Party with the first right to enforce determines not to make use of its right to institute an action or proceeding or otherwise take appropriate action to enforce or defend Licensed Patent Rights, then such Party shall provide written notice to the other Party that it declines such right as to such activity as soon as reasonably practicable, but in no event later than [[***]] days after notice by the other Party requesting action, or within [[***]] days prior to any deadline associated with the defense or enforcement of the Licensed Patent Rights (which deadline has been previously communicated to the other Party), and after receiving such notice, subject to Section 2.1.3 of this Agreement, the other Party shall have the right (but not the obligation) to institute and / or prosecute and control such an action or proceeding in its name with respect to such enforcement or defense at its sole expense and by counsel of its own choice, and the non-Prosecuting Party shall have the right to be represented in any such action by counsel of its own choice and at its own expense. The Parties shall reasonably cooperate with each other in the planning and execution of any such action to enforce or defend such Licensed Patent Rights and shall [[***]].

11.7.2.3 The Parties agree to cooperate fully in any action or proceeding for a Field Infringement, as applicable, pursuant to Sections

11.7.2.1 or 11.7.2.2. If a Party brings such an action or proceeding, such Party shall (a) keep the other Party reasonably informed of all material steps proposed to be taken, and provide copies of all material documents filed or received (to the extent permitted), in connection with the Licensed Patent Rights, as applicable, in such action or proceeding, and (b) consider in good faith any comments from the non-enforcing Party with respect thereto. At the request of the Party bringing such action or proceeding, the other Party shall, where necessary, furnish a power of attorney solely for such purpose or shall join in, or be named as a necessary party to, such action or proceeding. Bayer shall not settle any action or proceeding in accordance with Sections 11.7.2.1 and 11.7.2.2 with respect to a Field Infringement without the prior written approval of Atara, not to be unreasonably withheld, conditioned or delayed; provided, however, in all cases, Bayer shall not have the right to settle such action or proceeding in a manner that involves an admission of invalidity or unenforceability with respect to any Licensed Patent Rights, without the prior written consent of Atara, such consent to be granted or withheld in Atara's sole discretion. Without limiting the foregoing, if either Party initiates an action or proceeding pursuant to Sections 11.7.2.1 or 11.7.2.2, such Party shall provide the other Party with copies of all pleadings and other documents filed with the court.

11.7.2.4 All monies recovered upon the final judgment or settlement of any such suit or action to enforce the Licensed Patent Rights against a Field Infringement in the Field in the Territory shall be applied in the following order of priority: (x) first, the Party bringing suit or action shall be reimbursed for all costs and expenses (including reasonable attorney's fees and costs) incurred in connection with such suit or action, then to the costs and expenses (if any) of the other Party; and (y) thereafter, any remainder shall be shared as follows: [[***]] to Bayer and [[***]] to Atara.

11.7.3 Enforcement Outside Scope of Exclusive License. For the avoidance of doubt, Atara shall have the right (but not the obligation), at its sole expense and sole discretion, to control the enforcement or defense of the Licensed Patent Rights to abate any infringement other than a Field Infringement. Atara shall, however, in any such action coordinate and reasonably cooperate with Bayer with the intent to ensure that any position taken, and / or arguments made, by Atara (e.g., claim constructions) do not adversely impact any of the Licensed Patent Rights or any of Bayer's rights or licenses hereunder.

11.7.4 Patent Challenge. To the extent permitted by Laws on a country-by-country basis, Bayer agrees (i) not to challenge the validity or enforceability of any claim within the Licensed Patent Rights that are subject to the MSK Upstream Licenses, (ii) [[***]].

11.8 Defense of Third Party Claims. If a Party becomes aware of any actual or potential claim that the Exploitation of any Licensed Cell Therapeutic or Licensed Product or any other use by any person of Licensed Technology infringes the intellectual property rights of any Third Party, such Party shall promptly notify the other Party. (i) Atara shall not acknowledge to a Third Party the validity of any such allegation or admit liability without the prior written consent of Bayer, and (ii) Bayer shall not acknowledge to a Third Party the validity of any such allegation or admit

liability without the prior written consent of Atara, in each case (i) and (ii), such consent not to be unreasonably withheld or delayed. Bayer and Atara shall each keep the other advised of all material developments in the conduct of any proceedings in defending any claim of such alleged infringement or misappropriation and shall cooperate with the other in the conduct of such defense. In no event may either Party settle any such infringement or misappropriation claim in a manner that would limit the rights of the other Party or impose any obligation on the other Party, without such other Party's prior written consent, such consent not to be unreasonably withheld or delayed. For clarity, this Section 11.8 is subject to Article 16.

11.9 Product Marks. Bayer shall be responsible for the selection, registration and maintenance of all Product Marks, such Product Marks to be filed and maintained in Bayer's sole discretion. Bayer shall own and Control such Product Marks and pay all relevant costs with respect thereto.

11.10 Bayer Marks. Atara hereby recognizes and acknowledges the exclusive ownership by Bayer of the Bayer Marks.

11.11 Cooperation. The Parties shall reasonably cooperate with each other in connection with the matters covered by this Article 11, if and as may be reasonably requested by the other Party from time to time, and each Party shall bear all of its own related costs and expenses incurred in connection therewith.

ARTICLE 12
CONFIDENTIALITY

12.1 Definition.

12.1.1 As used herein, "Confidential Information" means all confidential or proprietary information disclosed by or on behalf of one Party or its Affiliates (such Party together with its Affiliates the "Disclosing Party") to the other Party or its Affiliates (such Party together with its Affiliates, the "Receiving Party") pursuant to this Agreement, in written, graphical, physical, electronic, oral or any other form. For the avoidance of doubt, Bayer's Confidential Information includes the royalty reports provided by Bayer or non-public results of any Clinical Trial sponsored by Bayer with respect to any Licensed Product as well as any Bayer Background Technology, Bayer Results and Bayer Background Improvements, and Atara's Confidential Information includes any and all Licensed Know How.

12.1.2 Further, the terms and conditions of this Agreement shall be deemed both Parties' Confidential Information hereunder and, with regard thereto, both Parties shall be subject to the obligations of confidentiality and non-use as per Section 12.2.

12.1.3 Confidential Information does not include information which:

(i) is at the time of disclosure part of the public domain or becomes thereafter part of the public domain other than by an unauthorized disclosure of the Receiving Party. For the sake of clarity, information shall not be deemed to be in, or have come into, the public domain merely because any part of such information is embodied in general information which is or becomes publicly known or because individual

features, components or combinations thereof are or become publicly known.

(ii) the Receiving Party can prove to have obtained from a Third Party prior to or after its disclosure by the Disclosing Party; provided that such information was not obtained by said Third Party, directly or indirectly, from the Disclosing Party under an obligation of confidentiality; and / or

(iii) information which the Receiving Party can prove was developed by or on behalf of it independently of the Confidential Information provided by the Disclosing Party.

12.2 Protection of Disclosing Party's Confidential Information.

12.2.1 Obligation of Confidentiality and Non-Use. Each Party agrees, with regard to Confidential Information received from the Disclosing Party, that during the term of this Agreement and for a period [[***]] years thereafter:

(i) it shall keep the Confidential Information strictly confidential and reasonably protected against disclosure as further described under Section 12.2.2 below;

(ii) it shall not use the Confidential Information, for any purposes other than those expressly permitted under this Agreement including, with regard to each Party, exercise of the rights and licenses granted to such Party pursuant to Article 2; and

(iii) it shall not disclose Confidential Information to any Third Party other than as permitted by Section 12.2.3.

12.2.2 Information Security Obligations.

12.2.2.1 Each Party shall adopt technical and organizational measures to guarantee reasonable protection of the other Party's Confidential Information, including the measures listed in Exhibit 12.2.2.1.

12.2.2.2 Each Party may audit the other Party's technical and organizational measures. For this purpose, each Party shall have the right, upon [[***]] Business Days' prior notice and during regular business hours, to:

(i) request information from the other Party (self-reporting);

(ii) cause a personal on-site inspection of the other Party, by a qualified Third Party (on-site audit). For such on-site audit, the audited Party shall grant the auditing Party access to, in particular, the data processing systems, files and documents pertaining to or containing Confidential Information of the auditing Party; and / or

(iii) interview relevant personnel, provided that such rights may not be exercised in a manner that interferes with the normal operations and activities of the audited Party's personnel.

The audited Party shall and shall cause its personnel to cooperate with any such activities. In particular, it shall immediately make available to the auditing Party all information and certifications that are necessary for the performance of the information security control.

12.2.3 Exceptions from the Obligation of Confidentiality and Non-Use. A Receiving Party may disclose Confidential Information disclosed to it as follows:

(i) Confidential Information (including for clarity the terms of this Agreement) may be disclosed to the following persons and entities if such have a need to know and are bound by an obligation (contractual, fiduciary or otherwise) of confidentiality, non-use and non-disclosure at least as restrictive as set forth herein: (x) the Receiving Party's officers, directors and employees, (y) any Third Party to the extent reasonably necessary or appropriate to perform the Receiving Party's rights and / or obligations under this Agreement, which includes, with regard to each Party, actual or potential (A) in the case of Atara with respect to Licensed Know How, licensees, and (B) in the case of both Parties, Sublicensees, investigators, distributors, co-promoters, co-marketers, suppliers, contractors, consultants, insurers, service providers and other similar persons and entities and (z) potential investors, investment bankers, merger partners or acquirors of a Party or substantially all of its assets referring to the Licensed Cell Therapeutic(s) and any Licensed Products.

(ii) Each Receiving Party may also disclose Confidential Information disclosed to it to Regulatory Authorities or other governmental authorities in order to obtain, maintain or defend Patent Rights or seek or obtain approval to conduct Clinical Trials, gain Regulatory Approval or Pricing Approval with respect to a Licensed Product or otherwise Exploit a Licensed Cell Therapeutic and / or Licensed Product;

(iii) Confidential Information may also be disclosed if and only to the extent such disclosure is required by (x) Laws, (y) Securities Exchange Rules, or (z) a validly issued request for information from a Regulatory Authority (including, for the sake of clarity, any governmental authority); provided that promptly, however, if reasonably possible, not later than [[***]] Business Days prior to any such disclosure, to the extent permitted by Laws, the Receiving Party shall notify the Disclosing Party and give reasonable opportunity to review and comment on the proposed disclosure and / or seek a protective order or other appropriate remedy and the Receiving Party shall consider in good faith the comments provided by the Disclosing Party. In particular, the Parties shall consult with each other on the provisions of this Agreement to be redacted in any filings made by either Party pursuant to Laws or Securities Exchange Rules; or

(iv) Any general, aggregate Confidential Information on the terms and conditions of this Agreement (including the Effective Date and maximum financial obligations) and on the collaboration of the Parties thereunder (including reach of Development milestones, estimated Development timelines) may be disclosed in a Voluntary Public Communication and / or Scientific Communication under the terms of Sections 13.1 and 13.2 without any additional approvals under Article 12 being required.

To the fullest extent permitted by Laws and / or Securities Exchange Rules, the Receiving Party shall seek confidential treatment of any Confidential Information disclosed to it under this Section 12.2.3(ii) and (iii).

Subject, for clarity, to Section 12.1.3, the status of Confidential Information disclosed pursuant to this Section 12.2.3 shall remain Confidential Information for all other purposes of this Agreement.

12.3 Protection of Licensed Know How. Without limiting Atara's rights to the Licensed Know How, and Bayer's confidentiality obligations with respect thereto, during the term of this Agreement Atara shall keep the Licensed Know How confidential and shall not disclose such to any Third Party; provided that (i) Section 12.2 shall apply *mutatis mutandis* (where Atara shall be deemed the Receiving Party solely for such purpose), and (ii) Atara shall not be restricted in disclosing Licensed Know How to any Third Party licensee (a) outside the Field, (b) within the Field, (x) solely with respect to therapeutic, prophylactic, diagnostic, and other healthcare-related products or treatments that are not directed to Mesothelin, or (y) with Bayer's consent, and / or (c) in a country of the Territory in which the exclusive license granted to Bayer hereunder has expired or become non-exclusive, provided that such Third Party licensee is bound by a contractual obligation of confidentiality and non-use at least as restrictive as set forth in this Agreement. For clarity, Atara is responsible to ensure that its contractors, collaborators and other licensees will also be bound by substantially similar confidentiality obligations with respect to any Licensed Know How.

12.4 Prior Non-Disclosure Agreement. As of the Effective Date, the terms of this Article 12 shall supersede any prior non-disclosure, secrecy or confidentiality agreement(s) between the Parties (and / or their Affiliates) dealing with the subject matter of this Agreement, including [[***]]. Any confidential information disclosed under any such prior agreement shall be deemed disclosed under this Agreement.

ARTICLE 13
PUBLICATIONS, PUBLICITY, USE OF NAME

13.1 The Parties shall not make any Public Communication nor submit or issue any Scientific Communication unless expressly permitted by Section 13.2 below.

13.2 Voluntary Public Communication and Scientific Communication.

13.2.1 By Atara. Atara may issue (i) a Voluntary Public Communication and / or (ii) a Scientific Communication, provided that any such Voluntary Public Communication and / or Scientific Communication shall be conditional upon Bayer's prior written consent subject to the procedure as per Section 13.2.3 below. To the extent MSK issues any Scientific Communication relating to the ATA2271 Phase 1 Clinical Trial sponsored by MSK without Bayer's prior written consent, such issuance shall not constitute a breach of this Section

13.2.1 by Atara, provided that Atara shall use reasonable efforts under the terms of the applicable MSK Upstream Licenses to cause MSK to comply with this Section 13.2.1.

13.2.2 By Bayer. Bayer may issue (i) a Voluntary Public Communication and / or (ii) a Scientific Communication; provided that Bayer allows Atara to review and comment in line with Section 13.2.3 below.

13.2.3 Good faith cooperation. Each Party shall send to the other Party any Voluntary Public Communication and / or Scientific Communication (i) in case of a Voluntary Public Communication in the form of a statement included in any quarterly or annual earnings statements, press releases or investor presentations at least [[***]] Business Days prior to its intended publication, (ii) in case of any other Voluntary Public Communication at least [[***]] Business Days prior to its intended publication and (iii) in case of a Scientific Communication at least [[***]] Business Days prior to its intended submission or publication. The Parties shall cooperate in good faith to address any comments, concerns or objections within the respective period.

13.2.4 Re-use. Once approved as per Section 13.2.1 (in case of Atara) or aligned as per Section 13.2.2 (in case of Bayer), after such approved Voluntary Public Communication has been issued, presented, or otherwise made by a Party, the precise or substantially similar wording may be frequently re-issued by such Party unless (i) the content of such Voluntary Public Communication has become misleading or otherwise inadequate as to subsequent developments, or (ii) any subsequent Voluntary Public Communication referring to the subject-matter thereof has been issued in line with Section 13.2.1 (in case of Atara) or Section 13.2.2 (in case of Bayer), in which case only the later Voluntary Public Communication may be re-issued, or (iii) the Parties have expressly agreed that a certain Voluntary Public Communication should exclusively be issued on one or more defined occasions.

13.2.5 Any modification, alteration, amendment or adjustment of a Voluntary Public Communication or Scientific Communication shall be deemed a new Voluntary Public Communication or Scientific Communication for the purpose of Sections 13.1, 13.2.1 and 13.2.2.

13.2.6 For the sake of clarity: Any Confidential Information included in any Voluntary Public Communication or Scientific Communication shall be subject to Article 12.

13.2.7 Article 12 shall remain unaffected with regard to the disclosure of such Confidential Information for any other purposes.

13.3 Mandatory Public Communication. Either Party may issue a Mandatory Public Communication subject to [[***]].

13.4 Use of Product Mark. Atara agrees not to use the Licensed Product's expected trade name or any other expected Product Mark in any Public Communication in any country of the Territory prior to the Licensed Product obtaining Marketing Approval in such country without Bayer's prior written consent, which consent may, for clarity, be withheld in Bayer's sole discretion.

13.5 Media Inquiries. Atara shall promptly direct all inquiries received by Atara or any of its Affiliates from members of the media and related to the Development or

Commercialization of the Licensed Cell Therapeutic(s) and / or any Licensed Product to Bayer for handling, unless such media inquiry can be adequately answered by a Voluntary Public Communication which has been approved by Bayer in which case Section 13.2.4 shall apply.

13.6 Press Release . The Parties shall mutually agree upon a joint press release regarding this Agreement and either Party may make subsequent Voluntary Public Communication of the contents of such press release in accordance with Sections 13.2.4 – 13.2.6.

13.7 Non-Use of MSK's Name. Bayer shall not use the names of MSK, including Memorial Sloan Kettering Cancer Center, Sloan Kettering Institute for Cancer Research, and Memorial Hospital for Cancer and Allied Diseases, nor any of their employees, nor any adaptation thereof, in any public announcements, publicity or advertising relating to this Agreement without prior written consent obtained from Atara or MSK, except as otherwise expressly permitted in the MSK Upstream Licenses.

ARTICLE 14
REPRESENTATIONS, WARRANTIES

14.1 Mutual Representations and Warranties. Each Party hereby represents and warrants to the other Party that as of the Effective Date:

14.1.1 It is duly organized and validly existing under the laws of its jurisdiction of incorporation or formation;

14.1.2 It has full corporate right, power and authority to enter into this Agreement and to perform its respective obligations under this Agreement (including, with respect to Atara, to grant the rights and licenses (including any sublicenses) granted by Atara to Bayer pursuant to this Agreement);

14.1.3 It is duly authorized to execute and deliver this Agreement, and the person or persons executing this Agreement on its behalf have been duly authorized to do so by all requisite corporate action; and

14.1.4 This Agreement is legally binding upon it, enforceable in accordance with its terms.

14.2 Representations and Warranties by Atara. Atara hereby represents and warrants to Bayer that as of the Effective Date:

14.2.1 General.

14.2.1.1 The execution and delivery of this Agreement by Atara, the performance of Atara's obligations hereunder, including the rights and licenses (including any sublicenses) granted by Atara to Bayer pursuant to this Agreement (A) do not conflict with or violate any requirement of any Laws existing as of the Effective Date and (B) do not materially conflict with, breach or constitute a default under, or otherwise violate any contractual obligations of Atara or any of its Affiliates existing as of the Effective Date;

14.2.1.2 To Atara's Knowledge, Atara has provided Bayer with all material information relating to the Licensed Technology and Licensed Cell Therapeutics in Atara's' or any of its Affiliates' possession or control, including all material information

regarding ongoing Clinical Trials, efficacy, side effects, injury, toxicity or sensitivity, reaction and incidents or severity thereof and any manufacturing issues;

14.2.1.3 To Atara's Knowledge, the documents delivered or made available by Atara to Bayer in connection with the transaction contemplated by this Agreement do not contain any untrue statement of a material fact nor omit to state a material fact necessary in order to make the statements contained therein not misleading; and Atara has not, up through and including the Effective Date, withheld from Bayer any material information concerning the Licensed Technology, the Licensed Cell Therapeutic, the Licensed Product or the transaction contemplated by this Agreement;

14.2.1.4 Atara and, to Atara's Knowledge, its collaborators (including MSK) have in the course of developing the Licensed Cell Therapeutics and / or Licensed Products, not conducted any Development activities (including any preclinical studies or Clinical Studies) in material violation of any Laws;

14.2.1.5 With respect to each submission to a Regulatory Authority regarding the Licensed Cell Therapeutic and / or Licensed Product, to Atara's Knowledge, Atara and its collaborators (including MSK) have not made an untrue statement of a material fact or fraudulent statement to such Regulatory Authority or knowingly failed to disclose a material fact required to be disclosed to such Regulatory Authority; and

14.2.1.6 Neither Atara nor any employee of Atara, or to Atara's Knowledge, subcontractor, collaborator or employee of a subcontractor or collaborator which has performed services with respect to the Licensed Cell Therapeutic and / or Licensed Product has been debarred by any Regulatory Authority (including the FDA pursuant to its authority under Sections 306(a) and (b) of FDC Act) or is the subject of any investigation or proceeding which may result in debarment by any Regulatory Authority.

14.2.2 Existing Agreements.

14.2.2.1 Atara has provided to Bayer a true and complete copy (subject to appropriate redactions) of each Existing Agreement;

14.2.2.2 The Existing Agreements constitute the only agreements and understandings Atara or any of its Affiliates has entered into with respect to any of the Licensed Technology;

14.2.2.3 To Atara's Knowledge, each Existing Agreement is valid, binding and enforceable according to its terms and Atara is not in breach of any Existing Agreement; and

14.2.2.4 Atara has not received any notice of any continuing default, breach or violation under any Existing Agreement.

14.2.3 Licensed Technology.

14.2.3.1 Exhibit 1.85 contains a correct and complete list of all Licensed Patent Rights as of the Effective Date, including the status (as of the Effective Date) of each such Licensed Patent Right. To Atara's Knowledge, all of the Licensed Patent Rights issued as of the Effective Date are valid and enforceable;

14.2.3.2 Atara (A) Controls all right, title and interest in the Licensed Know How specified in Exhibit 1.84 and the Licensed Patent Rights listed in Exhibit 1.85 (for clarity, including all materials, documents and data generated within the ATA2271 clinical development), which includes the right to grant the rights and licenses specified herein to the full extent contemplated under this Agreement, subject to the retained rights and other limitations in the Existing Agreements, as disclosed in redacted version to Bayer prior to the Effective Date; and (B) is the sole and exclusive owner of the Licensed Technology, with the exception of those parts of the Licensed Technology described in Exhibit 14.2.3.2(B). To Atara's Knowledge, none of the Licensed Technology, nor any of Atara's right, title or interest therein or thereto, is subject to any lien, option or other contingent right, restriction or claim of ownership (or other right, title or interest) by any Third Party (subject to the Existing Agreements) or any other encumbrance;

14.2.3.3 Neither Atara nor any of its Affiliates has granted any license or other right, title or interest to any Third Party relating to any of the Licensed Technology, Licensed Cell Therapeutics and / or Licensed Products which would conflict with the rights granted to Bayer hereunder;

14.2.3.4 To Atara´s Knowledge, there is and has been no actual, alleged or threatened infringement, misappropriation or other violation of Licensed Technology and there are no claims, judgments or settlements against, or amounts with respect thereto owed by, Atara or any of its Affiliates relating to any of the Licensed Technology, and no Licensed Technology is subject to any outstanding consent, settlement, decree, order, injunction, judgment, or ruling, including any that restricts or otherwise limits the use, ownership, validity, enforceability, disposition or other exploitation thereof;

14.2.3.5 Neither Atara nor any of its Affiliates has received any written or, to Atara's Knowledge, any other communication from any Third Party, or is or was a party to any suit, action or other proceeding pursuant to which any Third Party is or was, (A) claiming that the practice or other use of the Licensed Technology or the Exploitation of the Atara Cell Therapeutics is or was infringing the patent rights, or misappropriating or otherwise violating any other intellectual property rights, of any Third Party (including in any demand letter to in-license any Third Party intellectual property), or (B) challenging the validity, enforceability, patentability, use or ownership of any of the Licensed Technology or with respect to the Atara Cell Therapeutics,

including by making any adverse claim of ownership thereof or claiming joint ownership or that the Licensed Patent Rights are invalid or unenforceable (and, in each case (clauses (A) and (B)) to Atara's Knowledge, none of the foregoing have been threatened and there is no reasonable basis for any of the foregoing;

14.2.3.6 The Licensed Patent Rights are being equitably and diligently filed and prosecuted with the respective patent offices in accordance with all Laws and all applicable patent prosecution and maintenance fees with respect thereto have been timely paid;

14.2.3.7 To Atara's Knowledge, there are no facts or circumstances which cause it to believe or conclude that any Licensed Patent Right is or may be invalid or unenforceable;

14.2.3.8 To Atara's Knowledge, [[***]] neither the manufacturing of Atara Cell Therapeutics nor the practice or other use of any Licensed Technology relating to CMC and manufacturing of Atara Cell Therapeutics and, to Atara's Knowledge, neither the other Exploitation of the Atara Cell Therapeutics nor the practice or other use of any other Licensed Technology in accordance with the licenses granted by Atara to Bayer under this Agreement is infringing, misappropriating or otherwise violating any Patent Right or Know How of any other person or entity; and

14.2.3.9 Neither Atara nor any of its Affiliates has entered into an agreement or other arrangement with any academic institution, research center or governmental authority (or any person working for or on behalf of any of the foregoing) and / or accepted any funding, facilities, personnel or other resources from any academic institution, research center or governmental authority with respect to the Development of any Licensed Technology or any Atara Cell Therapeutic, including in connection with the conception, invention, reduction to practice, development or other creation of any intellectual property relating to any or any intellectual property that is included in any Licensed Technology or Atara Cell Therapeutic, except for, and pursuant to, the Existing Agreements.

14.3 Disclaimer of Warranties. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH HEREIN, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY, AND, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE DEVELOPMENT, COMMERCIALIZATION AND MANUFACTURE OF THE LICENSED CELL THERAPEUTIC AND / OR LICENSED PRODUCTS, OR THE OBTAINMENT OF MARKETING AUTHORIZATION OR PRICING APPROVAL IN ANY PARTICULAR COUNTRY, PURSUANT TO THIS AGREEMENT WILL BE SUCCESSFUL.

ARTICLE 15
ADDITIONAL COVENANTS

15.1 No Transfer of Rights. During the term of this Agreement, without Bayer's prior written consent, Atara shall not, and shall cause its Affiliates not to:

(i) transfer by assignment or otherwise any of the Licensed Technology to any Third Party except in strict compliance with Section 21.5;

(ii) grant any lien, option or other contingent right, or any other encumbrance on the Licensed Technology, in each case, which would conflict with the rights and licenses granted to Bayer hereunder; nor

(iii) grant any right, title or interest to any Third Party relating to the Licensed Technology, or any Licensed Cell Therapeutic or Licensed Product, which would conflict with the rights and licenses granted to Bayer hereunder.

15.2 Existing Third Party Obligations.

15.2.1 Within [[***]] Business Days following the Effective Date, Atara shall provide to Bayer a true and complete unredacted copy of each Existing Agreement. During the term of this Agreement, Atara shall:

(i) keep Bayer reasonably informed of any material development pertaining to, including any request or proposal to amend or modify, an Existing Agreement, in each case that could reasonably be expected to adversely affect the rights and licenses granted to Bayer hereunder;

(ii) not amend, or waive any right under, any Existing Agreement (in each case where such amendment or waiver could reasonably be expected to adversely affect the rights and licenses granted to Bayer hereunder) without the prior written consent of Bayer which consent shall not be unreasonably withheld or delayed;

(iii) maintain each Existing Agreement in full force and effect; and

(iv) perform its obligations thereunder, including any payment obligations due pursuant to any Existing Agreement.

15.2.2 With respect to any breach or default under any Existing Agreement that if uncured would enable the other party(ies) to such Existing Agreement to render non-exclusive or terminate the licenses granted to Atara thereunder (which would in turn render non-exclusive or terminate or have any other detrimental impact on Bayer's interests with respect to the licenses granted to Bayer hereunder), Atara shall if notified of such breach or default or notified of the other party´s intention to notify:

(i) give prompt written notice thereof to Bayer;

(ii) cure such breach or default within the period of time as may be required pursuant to the applicable Existing Agreement; and

(iii) provide Bayer with written confirmation thereof.

In the event that Atara is unable to cure such breach or default within this required time period, Atara shall provide Bayer with prompt written notice thereof and, to the extent permitted under the applicable Existing Agreement, permit Bayer, in its sole discretion, to cure such breach or default within the relevant cure period on behalf of the Atara, if possible. All out-of-pocket sums expended by Bayer in the exercise of its rights under this section, and concomitant interest (at the rate set forth in Section 9.6.4) accruing shall be deducted by Bayer from any future sums due from Bayer to the Atara pursuant to this Agreement.

15.3 Non-Compete.

15.3.1 No Development or Commercialization of Competing Products. Except as permitted or required pursuant to terms of this Agreement, subject to Section 15.4, Atara covenants that neither it nor any of its Affiliates shall, during the term of this Agreement, perform, or actively and voluntarily participate or assist any Third Party in performing, (i) any Development with respect to, or Manufacture or Commercialization of any Competing Product; or (ii) any research program the goal of which is to identify Competing Products, in each case (i) and (ii) provided that the covenant not to Develop Competing Products, including with respect to [[***]] expires on [[***]].

15.3.2 Development After [[***]]. Except as permitted or required pursuant to terms of this Agreement, subject to Section 15.4, Atara covenants that neither it nor any of its Affiliates shall, [[***]] of a Licensed Product in a [[***]], perform, or actively and voluntarily participate or assist any Third Party, in performing, any Development of a Competing Product entailing the use by Atara of employees of Atara who have been involved in the Development of the Licensed Cell Therapeutic and / or Licensed Product, unless the Know How regarding the Licensed Cell Therapeutic and / or Licensed Product gained by such employees could not reasonably be used for the Development of the Competing Product.

15.3.3 With regard to any country of the Territory in which any covenants contained in Sections 15.3.1 or 15.3.2 might violate the Laws, now or in the future, such covenants shall become null and void and of no effect, but only to the extent it violates the Laws of such country and provided, for clarity, that Sections 15.3.1 and 15.3.2 shall remain valid with regard to any other country of the Territory.

15.4 Transactions by Atara.

15.4.1 Notification Requirement. Notwithstanding Section 15.3, in the event that (i) Atara or (subject to Section 15.4.5) any of its Affiliates acquires, whether by merger, acquisition, asset purchase, or other similar transaction, a Third Party or any of its Affiliates (collectively, the "Acquired Affiliate") and, (ii) prior to the date of the consummation of the relevant transaction (the "Acquisition Date"), the Acquired Affiliate has been (either directly or through any Third Party) Exploiting one or more Competing Products in a way that would violate Section 15.3 if done so by Atara (the "Acquired Competing Products"), then Atara shall provide written notice of such Acquired Competing Products to Bayer within [[***]] days from the Acquisition Date ("Acquisition Notice Period").

15.4.2 Election of Remedy. Prior to the end of the Acquisition Notice Period, Atara shall elect with regard to each Acquired Competing Product either to: (i)

terminate, or cause the Acquired Affiliate to terminate, the Exploitation of the Acquired Competing Product in violation to Section 15.3 or (ii) divest, or cause the Acquired Affiliate to divest, whether by license or otherwise, such Acquired Competing Product.

15.4.3 Termination of Acquired Competing Product. If Atara notifies Bayer about its intention to terminate an Acquired Competing Product according to Section 15.4.2(i), then Atara or its Acquired Affiliate shall (i) terminate the Exploitation of such Acquired Competing Product as promptly as reasonably possible with due regard for patient safety and the requirements of Laws; and (ii) confirm to Bayer in writing when such termination has been completed.

15.4.4 Divestment of Acquired Competing Product. If Atara notifies Bayer about its intention to divest an Acquired Competing Product in accordance with Section 15.4.2(ii), then Atara or its Acquired Affiliate shall effect such divestment within [[***]] months of the Acquisition Date; provided, that such [[***]] months period shall be extended for an additional period not to exceed [[***]] days if necessary to obtain any merger clearance required to complete such divestiture. Atara shall keep Bayer reasonably informed of its efforts and progress in effecting such divestiture until it is completed. If Atara or its Acquired Affiliate effects such divestiture by way of one or more licenses or sublicenses, then Atara or its Acquired Affiliate shall be entitled to receive license fees, milestones and royalties on sales of any Acquired Competing Product so divested; provided that neither Atara nor its Acquired Affiliate funds or continues to conduct development or commercialization of such Acquired Competing Product.

15.4.5 Change of Control of Atara. If Atara enters into a transaction or series of transactions with a Third Party acquiror that constitutes a Change of Control of Atara [[***]] then the Third Party acquiror (and / or its affiliates other than Atara, which affiliates, together with the Third Party acquiror, shall be referred to as the "Acquiror Group") shall not be subject to Sections 15.3 or 15.4.1-15.4.4, provided that (i) no Licensed Technology (for clarity, neither any Exclusive Technology nor Non-Exclusive Technology) or Bayer Confidential Information is used by the Acquiror Group in connection with any Competing Product Exploited by the Acquiror Group, and (ii) the Acquiror Group implements reasonable measures to ensure that the personnel engaged in the development and / or commercialization of Licensed Cell Therapeutics and Licensed Products operate independently from the personnel engaged in the development and / or commercialization of the Competing Product(s).

15.5 Bayer Activities. Nothing in this Agreement shall be interpreted as prohibiting a Bayer Party from, independently or with a Third Party, directly or indirectly, including through any ownership interest, funding or conducting any activity that has as its goal or intent discovering, identifying or Exploiting a Competing Product or any other compound or product, provided that no Licensed Technology or Confidential Information of Atara and / or its Affiliates is used or accessed in connection with the foregoing activities outside the scope of the licenses and any other rights granted to Bayer under this Agreement.

ARTICLE 16
INDEMNIFICATION, LIABILITY, INSURANCE

16.1 Indemnification by Bayer. Bayer shall defend, indemnify and hold harmless

(i) Atara, its Affiliates and their respective directors, officers, and employees; as well as

(ii) solely with respect to Licensed Product that are covered by Licensed Technology that is subject to MSK Upstream Licenses, MSK and its trustees, directors, officers, medical and professional staff, employees, students, and agents and their respective successors, heirs, and assigns; and

(iii) solely with respect to Licensed Product that are covered by Licensed Technology that is subject to the NIH Upstream License, NIH and its trustees, directors, officers, medical and professional staff, employees, students, and agents and their respective successors, heirs, and assigns,

(the "Atara Indemnified Parties") from and against all claims, demands, liabilities, damages, penalties, fines, costs and expenses, including reasonable attorneys' and expert fees and costs, and costs or amounts paid to settle (collectively, "Losses"), arising from or occurring as a result of a Third Party's claim (including any Third Party product liability), action, suit, judgment or settlement to the extent such Losses are due to or based upon:

(a) the Exploitation of the Licensed Product;

(b) gross negligence, intentional wrongful acts or omissions or violations of Laws by a Bayer Party or their respective directors, officers or employees in connection with the Licensed Product; or

(c) breach by Bayer of any representation, warranty or covenant made by Bayer in this Agreement,

except, in each case, to the extent arising from or occurring as a result of (A) the gross negligence, intentional wrongful acts or omissions or violations of Laws by Atara, its Affiliates, Upstream Licensors or any of their respective directors, officers or employees; or (B) the breach by Atara of any representation, warranty or covenant made by it in this Agreement.

16.2 Indemnification by Atara. Atara shall defend, indemnify and hold harmless each Bayer Party and their respective directors, officers, and employees (the "Bayer Indemnified Parties") from and against all Losses arising from or occurring as a result of a Third Party's claim (including any Third Party product liability), action, suit, judgment or settlement to the extent such Losses are due to or based upon:

(i) the ATA2271 Phase 1 Clinical Trial and any other Phase 1 Clinical Trial related to ATA2271;

(ii) gross negligence, intentional wrongful acts or omissions or violations of Laws or regulation by or of Atara, its Affiliates, Upstream Licensors or their respective directors, officers or employees in connection with the Licensed Product;

(iii) breach by Atara of any representation or warranty made by it in the Agreement; or

(iv) any conflict arising from the explicit apportionment of the Upfront License Payment set forth in Section 9.1,

except, in each case, to the extent arising from or occurring as a result of (A) the gross negligence, intentional wrongful acts or omissions or violations of Laws by a Bayer Party or any of their respective directors, officers or employees; or (B) the breach by Bayer of any representation, warranty or covenant made by Bayer in this Agreement.

16.3 Claims for Indemnification.

16.3.1 A person entitled to indemnification under Section 16.1 or 16.2 (an "Indemnified Party") shall give prompt written notification to the person from whom indemnification is sought (the "Indemnifying Party") of the commencement of any action, suit or proceeding relating to a Third Party claim for which indemnification may be sought or, if earlier, upon the assertion of any such claim by a Third Party.

16.3.2 Within [[***]] days after receipt of such notification, the Indemnifying Party may, upon written notice thereof to the Indemnified Party, assume control of the defense of such action, suit, proceeding or claim with counsel of its choice. If the Indemnifying Party does not assume control of such defense, the Indemnified Party shall control such defense.

16.3.3 The Party not controlling such defense may participate therein at its own expense.

16.3.4 The Party controlling such defense shall keep the other Party advised of the status of such action, suit, proceeding or claim and the defense thereof and shall consider in good faith reasonable recommendations made by the other Party with respect thereto.

16.3.5 If the Indemnifying Party chooses to defend or prosecute any Third Party claim, the Indemnified Party that is a Party to this Agreement shall, and shall cause each of its Affiliates and each of their respective directors, officers, employees and agents to reasonably cooperate in the defense or prosecution thereof and shall furnish such records, information and testimony, provide such witnesses and attend such conferences, discovery proceedings, hearings, trials and appeals as may be reasonably requested in connection therewith. Such cooperation shall include access during normal business hours by the Indemnifying Party to, and reasonable retention by the Indemnified Party of, records and information that are reasonably relevant to such Third Party claim, and making the Indemnified Party, its Affiliates and its and their respective directors, officers, employees and agents available on a mutually convenient basis to provide additional information and explanation of any records or information provided, and the Indemnifying Party shall reimburse the Indemnified Party for all of its related reasonable out-of-pocket expenses.

16.3.6 The Indemnified Party shall not agree to any settlement of such action, suit, proceeding or claim without the prior written consent of the Indemnifying Party, which shall not be unreasonably withheld. The Indemnifying Party shall not agree to any settlement of such action, suit, proceeding or claim or consent to any judgment in respect thereof that does not include a complete and

unconditional release of the Indemnified Party from all liability with respect thereto or that imposes any liability or obligation on the Indemnified Party without the prior written consent of the Indemnified Party.

16.4 Limitation of Liability. EXCEPT IN CASES OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, IN NO EVENT SHALL EITHER PARTY OR THEIR AFFILIATES BE LIABLE OR OBLIGATED TO THE OTHER PARTY IN ANY MANNER FOR ANY SPECIAL, NON-COMPENSATORY, CONSEQUENTIAL, INDIRECT, INCIDENTAL, STATUTORY OR PUNITIVE DAMAGES OF ANY KIND, OR LOST PROFITS, LOST REVENUE OR LOST GOODWILL, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT PRODUCT LIABILITY OR OTHERWISE, EVEN IF INFORMED OF OR AWARE OF THE POSSIBILITY OF ANY SUCH DAMAGES IN ADVANCE, PROVIDED THAT THIS LIMITATION OF LIABILITY SHALL NOT APPLY (I) TO THE EXTENT THAT IT WOULD BE INVALID BY LAW, (II) FOR A MATERIAL BREACH OF ARTICLE 12 (CONFIDENTIALITY) AND / OR (III) TO CLAIMS ARISING IN CONNECTION WITH SECTIONS 16.1, 16.2 AND 16.3 (INDEMNIFICATION).

16.5 Insurance.

16.5.1 Subject to the proceeding subsection, each Party, at its own expense, shall, during the term of this Agreement, at its sole cost, obtain, carry and keep in force a liability insurance covering such risks as are appropriate in accordance with sound business practice and the Parties' obligations under this Agreement.

16.5.2 In lieu of the insurance coverage described in the preceding subsection, Bayer shall have the right to undertake self-insurance to cover its obligations hereunder, with financial protection comparable to that arranged by it for its own protection with regard to other products in its portfolio.

ARTICLE 17
COMPLIANCE WITH LAWS

17.1 Compliance. Both Bayer and Atara shall perform, and shall procure that their respective Affiliates and Sublicensees perform, their obligations under this Agreement in accordance with the Law and accepted pharmaceutical industry business practices, including, if and to the extent applicable to such Party (or its Affiliates or Sublicensees, as applicable) or its (or their) activities hereunder, the Federal Food, Drug, and Cosmetic Act (21 U.S.C. § 301 et seq.), the Public Health Service Act (42 U.S.C. § 201 et seq.), the Anti-Kickback Statute (42 U.S.C. § 1320a-7b), Civil Monetary Penalty Statute (42 U.S.C. § 1320a-7a), the False Claims Act (31 U.S.C. § 3729 et seq.), comparable state statutes, the regulations promulgated under all such statutes, and the regulations issued by the FDA or other applicable Regulatory Authority. Each Party shall promptly notify the other Party in writing of any written allegation received from a Third Party or Regulatory Authority of an alleged material deviation from applicable Laws with respect to activities under this Agreement. No Party or any of its Affiliates shall, or shall be required to, undertake any activity under or in connection with this Agreement which violates, or which it believes, in good faith, may violate (or cause the other Party to violate), any Law.

17.2 Export Controls. This Agreement is made subject to any restrictions concerning the export of products or technical information from the United States or other countries which may be imposed upon or related to Bayer or Atara from time to time. Each Party agrees that it will not export, directly or indirectly, any technical information acquired

from the other Party under this Agreement or any products using such technical information to a location or in a manner that at the time of export requires an export license or other governmental authority approval, without first obtaining the written consent to do so from the appropriate governmental authority.

17.3 Marking of Licensed Products. With respect to Licensed Products that are subject to the MSK Upstream Licenses, to the extent required by Law, or if the failure to mark would reduce the rights of MSK or Atara to enforce such Licensed Patent Rights against infringers, Bayer shall mark, and shall cause its Affiliates and Sublicensees to mark, such Licensed Products (or the packaging thereof) with the appropriate Licensed Patent Rights.

17.4 Data Privacy.

17.4.1 General aspects.

17.4.1.1 Each party shall comply with their respective obligations under applicable data privacy laws.

17.4.1.2 Data privacy related terms shall have the meaning as defined in Art. 4 General Data Protection Regulation EU 2016/679 (GDPR) if not otherwise defined in this Agreement.

17.4.1.3 The Parties acknowledge that they will need to process personal data of the respective other Party's employees ("Employee Data") for the purpose of executing this contract.

17.4.1.4 In the context of this Agreement, a Party may need to transfer human biological samples (including any derivatives or progeny thereof like cell lines) ("Human Samples") including information regarding the origin, pathology or integrity of such samples and/or other research related data (including information about health) on a one-person-level to the respective other Party. Such data, and/or the results of analyses of said human biological samples, may qualify as personal data (in this case: "Human Data"). For the avoidance of doubts, one-person-level data may qualify as personal data (if it falls under the definition of personal data in applicable data privacy law) but does not necessarily do so.

17.4.2 Privacy obligations of Disclosing Party.

17.4.2.1 Where a Party discloses Human Samples and/or Human Data to the respective other Party, the disclosing Party is responsible to ensure meeting all conditions that are legally required to allow this disclosure for purposes of this Agreement (including medical and diagnostic research and development purposes). This may include e.g. ensuring that respective data subjects have given and not withdrawn their consents, or anonymizing or de-identifying Human Samples and/or Human Data prior to disclosure (examples not exhaustive).

17.4.2.2 In case a transfer of Human Samples and/or Human Data from Bayer to Atara is required, the Parties hereby enter by reference the standard contractual clauses as published by the European

Commission as Decision 2004/915/EC. Atara as data importer will process personal data in scope of the standard contractual clauses according to Annex A of the standard contractual clauses. Specifications required for annex B are as follows:

A. Data subjects: Participants of clinical studies, donors of human samples

B. Purposes of transfer: Purposes as specified in the Agreement

C. Category of data: Human Samples and/or Human data collected as part of clinical studies or obtained for research purposes

D. Recipients: Atara

E. Sensitive data: Data about health, genetic data

F. Contact point for data protection inquiries:
Data importer: [[***]]
Data exporter: [[***]]

In the event that a change in applicable data protection law would require a different transfer mechanism than the standard contractual clauses as published by the European Commission as Decision 2004/915/EC in order to allow an export of personal data from Bayer to Atara, Bayer and Atara shall cooperate in good faith to implement such an alternative prior to the effective date of any such change.

17.4.2.3 Each Parties confirms that at time of signature of this Agreement, it is not aware of any legal requirement that may hinder disclosing Human Samples and/or Human Data to the respective other Party as required to fulfill the obligations under this Agreement.

17.4.2.4 The Party disclosing Human Data to the other Party shall do so only encrypted or via secure communication channels.

17.4.3 Privacy obligations of Receiving Party.

17.4.3.1 The Party receiving Employee Data and Human Samples and/or Human Data from the respective other Party may only use those as required for purposes of this Agreement.

17.4.3.2 Receiving Party is responsible to meet applicable privacy Laws when using received Human Samples and/or Human Data; receiving Party is in this respect a data controller as defined in the GDPR.

17.4.3.3 Receiving Party shall refrain from any attempt to identify the donor and/or data subject of the Human Samples and/or Human Data. This includes that Human Samples and/or Human Data shall not be supplemented or combined with any information which de-facto allows for a re-identification.

17.4.3.4 Receiving Party shall implement appropriate technical and organizational measures to protect the Human Samples and/or Human Data against accidental or unlawful destruction or accidental loss, alteration, unauthorised disclosure or access, and which provide a level of security appropriate to the risk represented by the processing and the nature of the data to be protected. This included restricting access to Human Samples and/or Human Data to a need-to-know level.

17.4.3.5 Receiving Party shall notify the disclosing Party without undue delay in the event that receiving Party becomes aware of a breach of applicable data privacy laws in the context of activities related to the Agreement.

ARTICLE 18
TERM AND TERMINATION

18.1 Term. This Agreement shall commence on the Effective Date and shall end, on a Licensed Product-by-Licensed Product and country-by-country basis upon the earlier of (i) expiration of the Royalty Term applicable to such country, or (ii) any termination of this Agreement or parts thereof in accordance with Section 18.2 below.

18.2 Termination.

18.2.1 Termination by Bayer. Bayer shall have the right to terminate this Agreement in whole or on a Licensed Product-by-Licensed Product and country-by-country (except in any of the Major Market countries) basis at any time after the Effective Date on at least [[***]] days prior written notice to Atara.

18.2.2 Termination for Breach. Either Party shall be entitled to terminate this Agreement by written notice to the other with immediate effect if the other Party materially breaches any of its material obligations under this Agreement and, if such breach is curable within the aforesaid period, fails to cure such breach within [[***]] days following its receipt of written notice thereof from the terminating Party.

18.2.3 Termination for Patent Challenge. If Bayer or [[***]] (a) commences or actively and voluntarily participates in any action or proceeding (including any patent opposition or re-examination proceeding), or otherwise asserts any claim, challenging or denying the validity or enforceability of any claim of any Licensed Patent Rights, or (b) actively and voluntarily assists any other party in bringing or prosecuting any action or proceeding (including any patent opposition or re-examination proceeding) challenging or denying the validity or enforceability of any claim of any Licensed Patent Rights (each of (a) and (b), a "Patent Challenge"), then, to the extent permitted by Laws, Atara shall have the right, in its sole discretion, to give notice to Bayer that Atara may terminate this Agreement [[***]] days following such notice and, unless Bayer or such Bayer Party, as applicable, withdraws or causes to be withdrawn all such challenge(s) within such [[***]] day period, Atara shall have the right to (i) [[***]] terminate this Agreement by providing written notice thereof to Bayer or (ii) [[***]]. The foregoing right to terminate shall not apply with respect to any Patent Challenge where the Patent Challenge is made in defense of an assertion of the relevant Patent Right that is first brought by Atara against Bayer.

18.2.4 Termination for Bankruptcy. To the extent permitted by Law, either Party may terminate this Agreement by written notice to the other with immediate effect if the other Party is compelled to file bankruptcy, or appoints or suffers appointment of a receiver or trustee over all or substantially all of its property, or makes a general assignment for the benefit of creditors, in each case, where the relevant proceedings are not dismissed, discharged or stayed within [[***]] days after the filing thereof

18.3 Effect of Termination or Expiration of Agreement.

18.3.1 In case of any termination or expiration of this Agreement, all rights and obligations of the Parties shall cease immediately, unless otherwise indicated in this Agreement.

18.3.2 Expiration or termination of this Agreement shall not relieve the Parties of any obligation accrued prior to such expiration or termination, nor shall expiration or any termination of this Agreement preclude either Party from pursuing all rights and remedies it may have under this Agreement, at law or in equity, with respect to breach of this Agreement nor prejudice any Party's right to obtain performance of any obligation.

18.3.3 Upon termination or expiration of this Agreement, upon the request of the Disclosing Party, the Receiving Party shall promptly return to the Disclosing Party or destroy the Disclosing Party's Confidential Information, including all copies thereof, except to the extent that retention of such Confidential Information is reasonably necessary for the Receiving Party to Exploit any continuing rights it may have and / or to fulfill its obligations contemplated herein, including its obligations of non-disclosure and non-use hereunder. The return and / or destruction of such Confidential Information as provided above shall not relieve the Receiving Party of its obligations under this Agreement. The provisions of this section shall not apply to copies of electronically exchanged Confidential Information made as a matter of routine information technology backup and to Confidential Information or copies thereof which must be stored by the Receiving Party according to provisions of Law or the Receiving Party's internal policies and procedures.

18.3.4 Program Transfer.

18.3.4.1 Upon termination of this Agreement in its entirety (i) [[***]] or (ii) [[***]], in each case (i) and (ii) at Atara's option, upon written notice submitted to Bayer no later than [[***]] days after the effective date of the termination, [[***]].

18.3.4.2 Upon agreement of a program transfer agreement or Atara's request for a Program Transfer, as applicable, in each case, pursuant to Section 18.3.4.1, Bayer will (in the case of a program transfer agreement, within the timelines agreed in such agreement, or otherwise as promptly as reasonably practicable), in each case to the extent legally possible without breaching any Laws (including on data privacy) or obligations towards Third Parties (including contractual obligations), make the following transfers to Atara ("Program Transfer"):

(i) Regulatory Documentation. [[***)].

(ii) Clinical Trials. [[***]].

(iii) Trademarks. [[***]].

(iv) Inventory. [[***]].

(v) Licenses. [[***]]

(vi) Transition of Contracts. [[***]].

18.4 Additional Effects of Expiration. Upon expiration (but not early termination) of this Agreement in a particular country pursuant to Section 18.1, Bayer shall have a fully paid-up, perpetual, irrevocable [[***]] license (including the right to [[***]]) in the Field in such country under the Licensed Technology to Exploit the Licensed Cell Therapeutic(s) / Licensed Product(s).

18.5 Bayer's Rights upon Atara's Bankruptcy.

18.5.1 All licenses granted under this Agreement shall be deemed licenses of rights to intellectual property for purposes of Section 365(n) of the U.S. Bankruptcy Code as it may be amended from time to time (the "U.S. Bankruptcy Code"). The Parties hereby agree that Bayer may fully exercise all of its rights and elections under the U.S. Bankruptcy Code.

18.5.2 The Parties hereby agree that Bayer, as licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the U.S. Bankruptcy Code or any other Law outside the United States that provide similar protection for intellectual property rights. Atara (in any capacity, including debtor-in-possession) and its successors and assigns (including any trustee) grants to Bayer and its Affiliates a right to obtain possession of and to benefit from a complete duplicate of (or complete access to, as appropriate) any Licensed Technology and all embodiments of the Licensed Technology held by Atara or such successors and assigns, or otherwise available to them, which, if not already in Bayer's possession, shall be promptly delivered to Bayer upon Bayer's written request. Embodiments of Licensed Technology includes all tangible, electronic or other embodiments of rights and licenses hereunder, including all Licensed Products, all Regulatory Documentation and rights of reference therein. Atara (in any capacity, including debtor-in-possession) and its successors and assigns (including any trustee) shall not interfere with the exercise by Bayer or its Affiliates of rights and licenses to Licensed Technology and embodiments of Licensed Technology licensed hereunder in accordance with this Agreement and agrees to reasonably assist Bayer and its Affiliates to obtain the Licensed Technology and embodiments of Licensed Technology in the possession or control of Third Parties as reasonably necessary or desirable for Bayer or its Affiliates to exercise such rights and licenses in accordance with this Agreement (in each case to the extent Atara has such right under the agreement(s) with the applicable Third Parties). Whenever Atara (in any capacity, including debtor-in-possession) and its successors and assigns (including any trustee) provides to Bayer, pursuant to this Section 18.5, any of the Licensed Technology and embodiments of Licensed Technology in accordance with this Agreement, Bayer shall have the right to perform the obligations of Atara hereunder with respect to such Licensed Technology and embodiments of Licensed Technology, but neither such provision nor such performance by Bayer shall release Atara (in any capacity, including debtor-in-possession) and its

successors and assigns (including any trustee) from liability resulting from any rejection of the license or the failure to perform such obligations set forth in this Agreement.

18.6 Survival. The provisions of Sections 2.1.2, 2.1.3, 2.2.2, 2.2.3, 2.8, 3.3.4, 8.1 (solely with respect to units of Licensed Products administered or sold prior to the expiration or termination of this Agreement), 9.6.4 (solely with respect to payments that are accrued but unpaid at the time of expiration or termination, or otherwise to the extent applicable), 9.7, 11.2, 14.1-14.2 (solely with respect to claims arising from a breach of warranty, subject to applicable statute of limitation),14.3, 17.4, 18.3, 18.4, 18.5.1, 18.5.2 (if this Agreement is terminated by either Party under Section 18.2.4) and this 18.6 and Article 1, Article 10, Article 12, Article 16 (but not Section 16.5), Article 20 and Article 21 shall survive any termination or expiration of this Agreement.

ARTICLE 19
FORCE MAJEURE

19.1 Force Majeure. Neither Party shall be responsible or liable to the other Party for any failure to perform any of its obligations hereunder, if such failure results from circumstances beyond the control of such Party, including requisition by any governmental authority, the effect of any statute, ordinance or governmental order or regulation, wars, strikes, lockouts, riots, epidemic, pandemic, disease, an act of God, civil commotion, fire, earthquake, storm, failure of public utilities, common carriers or supplies, or any other circumstances, whether or not similar to the above causes and whether or not foreseeable ("Force Majeure"). The Parties shall use Commercially Reasonable Efforts to avoid or remove any such cause and shall resume performance under this Agreement as soon as feasible whenever such cause is removed; provided that the foregoing shall not be construed to require either Party to settle any dispute with any Third Party, to commence, continue or settle any litigation, or to incur any unusual or extraordinary expenses.

19.2 Prompt Notification. The Party affected by the Force Majeure event shall upon its occurrence promptly give written notice to the other Party specifying the nature of the event and its anticipated duration.

ARTICLE 20
DISPUTE RESOLUTION

20.1 Dispute Resolution. If a dispute arises, other than a dispute governed by Section 3.7, each Party shall notify the other Party of the dispute and the issue shall be referred to each Party's Executive Sponsor who shall meet within [[***]] days (in person, by means of telephone conference, videoconference or other means of communications) and attempt in good faith to resolve such issue (subject only to, in the case of Atara, approval of its board of directors or, in the case of Bayer, approval of the applicable management board, if required). All such discussions shall be confidential and shall be treated as compromise and settlement negotiations for purposes of applicable rules of evidence. Notwithstanding the foregoing, if such executives cannot resolve such matter within [[***]] days of the date such matter is first referred to them, then, either Party may pursue the remedies set forth in Sections 20.2 - 20.4.

20.2 Arbitration . Subject to Sections 20.3 - 20.5 below, any dispute, which cannot be resolved pursuant to Section 20.1 above, shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce (the "Rules") by a panel of three arbitrators appointed in accordance with the Rules, save that the third arbitrator, who will act as president of the arbitral tribunal, shall not be appointed by the International

Court of Arbitration, but by the two arbitrators which have been appointed by either of the Parties in accordance with Article 12 para 4 of the Rules. The place of arbitration shall be New York and the language to be used in any such proceeding (and for all testimony, evidence and written documentation) shall be English. The IBA Rules on the Taking of Evidence in International Arbitration shall apply on any evidence to be taken up in the arbitration.

20.3 Disputes Related to Diligence. If Atara believes Bayer is in breach of its obligation to use Commercially Reasonable Efforts under Section 4.4 or Section 6.1.2, or if Bayer believes Atara is in breach of its cooperation obligations under Section 4.4 or Section 6.1.2, it shall so notify Bayer in writing, specifying on what grounds it believes so, and the Parties shall enter into good faith discussions about the situation. If the Parties cannot reach an agreement in this regard, then the matter shall, upon notification of either Party, be referred to the Parties' respective Executive Sponsors in accordance with the process as described in Section 20.1 for dispute resolution, provided, however, that if the Executive Sponsors cannot resolve the matter, then Atara (with respect to an alleged breach of Section 4.4 or Section 6.1.2) or Bayer (with respect to an alleged breach of Section 4.4 or Section 6.1.2) may notify the other Party of an alleged breach of contract, which notice will start the cure period pursuant to Section 18.2.2. For clarity, the effects of any violation of diligence obligations pursuant to this Agreement will in any event be limited to a right to terminate this Agreement with any other rights (such as damages, specific performance, etc.) being excluded.

20.4 Disputes Related to Patent Rights. Notwithstanding anything in this Agreement to the contrary, any and all issues regarding the validity and enforceability of any Patent Rights ("Patent Matters") shall be determined in a court or other tribunal, as the case may be, of competent jurisdiction under the applicable patent laws of the applicable country, with a jury trial being however excluded. If such dispute involves both Patent Matters and other matters, the arbitrators will have the right to stay the arbitration until determination of Patent Matters material to the resolution of the dispute as to the other matters is resolved.

20.5 Injunctive Relief. Nothing contained in this Agreement shall deny either Party the right to seek injunctive relief, equitable relief, interim or provisional relief including a temporary restraining order, specific performance, preliminary or permanent injunction or other interim equitable relief from a court of competent jurisdiction in the context of a breach or threatened breach of any provision of this Agreement, bona fide emergency or prospective irreparable harm, or as reasonable and necessary to protect its legitimate interests. Such an action may be filed and maintained, notwithstanding any ongoing discussions between the Parties or any ongoing arbitration proceeding concerning a dispute, if necessary to protect the interests of such Party or to preserve the status quo pending the arbitration proceeding.

ARTICLE 21
GENERAL PROVISIONS

21.1 Interpretation.

21.1.1 The headings of sections, subsections and paragraphs hereof are inserted solely for convenience and ease of reference only and shall not constitute any part of this Agreement, or have any effect on its interpretation or construction.

21.1.2 All references in this Agreement to the singular shall include the plural where applicable.

21.1.3 The use of any gender is applicable to all genders.

21.1.4 Unless otherwise specified, references in this Agreement to any section shall include all subsections and paragraphs in such section, and references in this Agreement to any subsection shall include all paragraphs in such subsection.

21.1.5 Any list or examples following the word "including" shall be interpreted without prejudice to the generality of the preceding words.

21.1.6 All references to days or years in this Agreement shall mean calendar days or years, as the case may be, unless otherwise specified.

21.1.7 This Agreement has been prepared in the English language and the English language shall control its interpretation. In addition, all notices required or permitted to be given hereunder, and all written, electronic, oral or other communications between the Parties regarding this Agreement shall be in the English language.

21.2 Applicable Law. This Agreement and any disputes, claims, or actions related thereto shall be governed by and construed in accordance with the Laws of New York without giving effect to any choice or conflict of law provisions.

21.3 Venue. Each of the Parties hereto agrees to venue in, and submits to the exclusive jurisdiction of, the New York courts for any legal proceeding of every nature, kind and description whatsoever arising pursuant to Section 20.4 or 20.5. Both Parties agree to waive their right to a jury trial.

21.4 Notices. Any notice required or permitted to be given under this Agreement by one Party to the other shall be in writing and delivered via an internationally recognized courier service with acknowledgement of receipt, and addressed to such other Party at its address indicated below, or to such other address as the addressee shall have last furnished in writing to the addressor, and shall be effective upon receipt by the addressee.

If to Bayer: [[***]]

With a copy to (which shall not constitute notice): [[***]]

If to Atara: [[***]]

With a copy to (which shall not constitute notice): [[***]]

21.5 Assignment.

21.5.1 Except as otherwise expressly provided under this Agreement, neither Party may assign or otherwise transfer this Agreement or any right or obligation hereunder without the express prior written consent of the other Party;

provided that: (a) either Party shall be permitted to effect such an assignment or other transfer of this Agreement, or any right or obligation hereunder, to any of its Affiliates, without the prior written consent of the non-assigning Party, provided that the assigning Party will remain liable and responsible for all of its obligations under this Agreement; and (b) either Party shall be permitted to effect such an assignment or other transfer of this Agreement, or any right or obligation hereunder without the prior written consent of the other Party, to a successor to substantially all of the business to which this Agreement pertains, whether in a merger, sale of stock, sale of assets or other transaction, provided that the assignee will expressly agree to be bound by such Party's obligations under this Agreement. Additionally, either Party shall be permitted, without the prior consent of the other Party, to assign any or all of its rights to receive payments under this Agreement to any Affiliate or Third Party.

21.5.2 Any purported assignment or other transfer in violation of this section shall be null and void.

21.5.3 Subject to the foregoing provisions of this section, this Agreement shall be binding upon, and shall inure to the benefit of, all permitted assigns.

21.6 Severability. If any provision of this Agreement shall be found to be invalid or otherwise unenforceable in whole or in part, the validity or enforceability of the remainder of this Agreement shall not be affected. Furthermore, the Parties agree that the invalid portion of an unenforceable provision or part thereof shall be superseded by an adequate provision that, to the legally permitted extent, comes closest to what the Parties would have desired at the time of conclusion of this Agreement had they considered the issue concerned.

21.7 Affiliates. Each Party may perform, at such Party's exclusive option, its obligations hereunder itself or through one or more Affiliates for the avoidance of doubt and unless expressly stated otherwise in this Agreement for any particular obligation, Bayer may perform its obligations, and exercise its rights, under this Agreement itself or through any other Bayer Party or Third Party contractor. Neither Party shall permit any of its Affiliates or permitted Third Party contractors to commit any act (including any act of omission) which such Party is prohibited hereunder from committing directly. The Party so acting through its Affiliate(s) shall remain liable for the due fulfillment of its obligations by, and for any breach, act or omission of, such Affiliate(s).

21.8 Independent Contractors. Nothing in this Agreement shall create, or be deemed to create, a partnership, joint venture or the relationship of principal and agent or employer and employee between the Parties. Neither Party shall enter into or have authority to enter into any engagement or make any representation or warranty on behalf of the other Party or otherwise bind or oblige the other Party hereto. Each Party agrees to perform under this Agreement solely as independent contractor.

21.9 Third Party Beneficiary. MSK is an intended third party beneficiary of the terms set forth in Sections 10.1, 11.7.4, 13.7, 16.1 and 17.1-17.3 of this Agreement to the extent related to the Licensed Technology that is in-licensed by Atara under the MSK Upstream Licenses, and NIH is an intended third party beneficiary of the terms set forth in in Sections 4.4, 6.1.2 and 16.1 of this Agreement and Exhibit 2.1.3(b) No. 1 to the extent related to the Licensed Technology that is in-licensed by Atara under the NIH Upstream License.

21.10 Waiver. Any term or condition of this Agreement may be waived only by a written instrument executed by the Party waiving the benefit of a right hereunder. The waiver

by a Party of any right hereunder shall not be deemed a continuing waiver of such right or of another right hereunder, whether of a similar nature or otherwise.

21.11 Amendments. This Agreement (including the attached exhibit(s)) shall not be amended or otherwise modified without a written document signed by the duly authorized representative(s) of each Party.

21.12 Entire Agreement. This Agreement (including the attached exhibit(s)) contains the entire understanding of the Parties with respect to the subject matter hereof. All other express or implied representations, agreements and understandings with respect to the subject matter hereof, either oral or written, heretofore made are expressly superseded by this Agreement.

21.13 Priorities. In the event of any ambiguity, doubt or conflict emerging herein, the terms and conditions of this Agreement shall take precedence over the terms and conditions of any exhibit, unless the latter makes an explicit reference to the provision of this Agreement that shall be amended.

21.14 Further Assurances. Each Party agrees to execute, acknowledge and deliver such further instructions, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

21.15 Counterparts; Electronic Delivery. This Agreement may be executed in counterparts, each and every one of which shall be deemed an original and all of which together shall constitute one and the same instrument. Each Party may execute this Agreement by facsimile transmission or in Adobe™ Portable Document Format (PDF) sent by electronic mail. Facsimile or PDF signatures of authorized signatories of the Parties shall be deemed to be original signatures, shall be valid and binding upon the Parties, and, upon delivery, shall constitute due execution of this Agreement, provided that such electronic signing and delivery is confirmed in a written paper copy signed by and delivered to each Party promptly following electronic signing and delivery.

[Remainder of this page intentionally left blank.]

Exhibits

Exhibit 1.8	ATA2271 Plan
Exhibit 1.38	CMC Plan
Exhibit 1.59	Existing Agreements
Exhibit 1.72	ATA3271 IND Data Package
Exhibit 1.84	Licensed Know How
Exhibit 1.85	Licensed Patent Rights
Exhibit 1.97	MOFFITT Upstream Licenses
Exhibit 1.102	MSK Upstream Licenses
Exhibit 1.130	Research Plan
Exhibit 2.1.3	Terms of Upstream Licenses

Exhibit 3.3.6	Bayer Supplier Code of Conduct
Exhibit 4.4(A)	NIH Upstream Agreement Commercial Development Plan
Exhibit 4.4(B)	NIH Benchmarks
Exhibit 7.3	Key Terms of the Manufacturing and Supply Agreement
Exhibit 9.1	Upfront License Payment
Exhibit 11.6.1	Countries for Patent Prosecution
Exhibit 12.2.2.1	Technical and Organizational IT Security Measures
Exhibit 14.2.3.2(B)	Licensed Technology Not Solely Owned by Atara

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

Berlin, Germany

BAYER AG

/s/ [[***]]

[[***]]

EVP, Head of Cell and Gene Therapy

/s/ [[***]]

[[***]]

EVP, Head of Business Development & Licensing, Pharma

San Francisco, California, U.S.A.

ATARA BIOTHERAPEUTICS, INC

/s/ [[***]]

[[***]]

President and Chief Executive Officer

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "**Lease**") is made this 17th day of March, 2021 , between **ARE-LA REGION NO. 2, LLC**, a Delaware limited liability company ("**Landlord**"), and **ATARA BIOTHERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

Building: 1280 Rancho Conejo Boulevard, Thousand Oaks, California

Premises: The entire Building containing approximately 33,659 rentable square feet, consisting of (i) that certain approximately 6,292 rentable square foot laboratory/office space known as "**Suite 1**"; (ii) that certain approximately 19,965 rentable square foot laboratory/office space known as "**Suites 2-4**"; and (iii) that certain approximately 7,402 rentable square foot warehouse space known as "**Suite 5**"; all as determined by Landlord, as shown on **Exhibit A**.

Project: The real property on which the Building in which the Premises are located, together with all improvements thereon and appurtenances thereto as described on **Exhibit B**.

Base Rent: Initially, with respect to the Suite 1 and Suites 2-4, $4.25 per rentable square foot of Suite 1 and Suites 2-4, respectively, per month, subject to adjustment pursuant to Section 4 hereof.

Initially, with respect to the Suite 5, $2.80 per rentable square foot of Suite 5 per month, subject to adjustment pursuant to Section 4 hereof.

Rentable Area of Premises: 33,659 sq. ft.

Rentable Area of Building: 33,659 sq. ft.

Rentable Area of Project: 62,653 sq. ft.

Tenant's Share of Operating Expenses of Building: 100% (18.69% with respect to Suite 1, 59.32% with respect to Suites 2-4 and 21.99% with respect to Suite 5)

Building Share of Operating Expenses of Project: 53.72%

Security Deposit: None

Target Commencement Date: July 15, 2021

Rent Adjustment Percentage: 3%

Base Term: Beginning on the Commencement Date and ending 125 months from the first day of the first full month following the Suites 2-4 Commencement Date (as defined in Section 2). For clarity, if the Suites 2-4 Commencement Date occurs on the first day of a month, the expiration of the Base Term shall be measured from that date. If the Suites 2-4 Commencement Date occurs on a day other than the first day of a month, the expiration of the Base Term shall be measured from the first day of the following month.

Permitted Use: Research and development laboratory, related office and other related uses consistent with the character of the Project and otherwise in compliance with the provisions of Section 7 hereof.

Address for Rent Payment:
P.O. Box 975383
Dallas, TX 75397-5383

Landlord's Notice Address:
26 North Euclid Avenue
Pasadena, CA 91101
Attention: Corporate Secretary

Tenant's Notice Address
Prior to Commencement Date:
2380 Conejo Spectrum Street, Suite 200
Thousand Oaks, CA 91320
Attention: Lease Administrator

Tenant's Notice Address
After Commencement Date:
2380 Conejo Spectrum Street, Suite 200
Thousand Oaks, CA 91320
Attention: Lease Administrator

The following Exhibits and Addenda are attached hereto and incorporated herein by this reference:

[X] **EXHIBIT A** - PREMISES DESCRIPTION
[X] **EXHIBIT B** - DESCRIPTION OF PROJECT
[X] **EXHIBIT C** - WORK LETTER
[X] **EXHIBIT D** - COMMENCEMENT DATE
[X] **EXHIBIT E** - RULES AND REGULATIONS
[X] **EXHIBIT F** - TENANT'S PERSONAL PROPERTY
[X] **EXHIBIT G** - ASBESTOS DISCLOSURE
[X] **EXHIBIT H** - ENVIRONMENTAL REPORTS

1. **Lease of Premises**. Upon and subject to all of the terms and conditions hereof, Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord. The portions of the Project outside the Building which are for the non-exclusive use of tenants of the Project are collectively referred to herein as the "**Common Areas**." Landlord reserves the right to modify Common Areas, provided that such modifications do not materially adversely affect Tenant's access to or use of the Premises for the Permitted Use on a 24 hours a day, 7 day a week basis, or reduce the number of parking spaces to which Tenant is entitled under Section 10 hereof (other than on a temporary basis). From and after the Commencement Date through the expiration of the Term, Tenant shall have access to the Building and the Premises 24 hours a day, 7 days a week, except in the case of emergencies, as the result of Legal Requirements, the performance by Landlord of any installation, maintenance or repairs, or any other temporary interruptions, and otherwise subject to the terms of this Lease.

2. **Delivery; Acceptance of Premises; Commencement Date; Suite 2-4 Commencement Date; Suite 5 Commencement Date** .

(a) **Suite 1**. Landlord shall use reasonable efforts to deliver ("**Delivery**" or "**Deliver**") Suite 1 to Tenant on or before the Target Commencement Date, with the Tenant Improvements in Suite 1 Substantially Completed. If Landlord fails to timely Deliver Suite 1, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable, except if the first paragraph of Section 2(d) below is applicable. Notwithstanding anything to the contrary contained herein, if Landlord fails to Deliver Suite 1 to Tenant within 30 days after the Target Commencement Date (as such date may be extended by Force Majeure (as defined in Section 34) and Tenant Delays, the "**Suite 1 Abatement Date**"), Base Rent payable with respect to Suite 1 shall be abated 1 day for each day (which abatement will be applied commencing on the day immediately following the expiration of the Suite 1 Abatement Period) after the Suite 1 Abatement Date that Landlord fails to Deliver Suite 1 to Tenant. As used in this Section 2(a), the terms "**Tenant Improvements**," "**Substantially Completed**" and "**Tenant Delays**" shall have the meanings set forth for such terms in the work letter attached hereto as **Exhibit C** (the "**Work Letter**").

The "**Suite 1 Commencement Date**" shall be the earlier of: (i) the date Landlord Delivers Suite 1 to Tenant; or (ii) the date Landlord could have Delivered Suite 1 but for Tenant Delays. The "**Suite 1 Rent Commencement Date**" shall be the date that is 150 days after the Suite 1 Commencement Date. The period commencing on the Suite 1 Commencement Date through the day immediately preceding the Suite 1 Rent Commencement Date may be referred to herein as the "**Suite 1 Abatement Period**."

Subject to the provisions of Section 6 of the Work Letter, Landlord shall permit Tenant access to Suite 1 for a period of 30 days prior to the Suite 1 Commencement Date for Tenant's installation and setup of furniture, fixtures and equipment ("**FF&E Installation**") in Suite 1, provided that such FF&E Installation is coordinated with Landlord, and Tenant complies with this Lease and all other reasonable restrictions and conditions Landlord may impose. All such access shall be during normal business hours. Any access to Suite 1 by Tenant before the Suite 1 Commencement Date shall be subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent or Operating Expenses with respect to Suite 1.

Except as set forth in the Work Letter: (i) subject to Landlord's Substantial Completion of the Tenant Improvements in Suite 1, Tenant shall accept Suite 1 in its condition as of the Suite 1 Commencement Date; (ii) Tenant shall have no responsibility for defects in the original construction of the Building or the Tenant Improvements in Suite 1; and (iii) Tenant's taking possession of Suite 1 shall be conclusive evidence that Tenant accepts Suite 1.

For the period of 60 consecutive days after the Suite 1 Commencement Date, Landlord shall, at its sole cost and expense (which shall not constitute an Operating Expense), be responsible for any repairs that are required to be made to the Building Systems (as defined in Section 13) exclusively serving Suite 1 or the Tenant Improvements in Suite 1, unless Tenant or any Tenant Party was responsible for the cause of such repair, in which case Tenant shall pay the cost. Tenant shall also have the benefit of any warranties issued to Landlord in connection with the Tenant Improvements in Suite 1.

(b) **Suite 5**. Landlord shall use reasonable efforts to Deliver Suite 5 to Tenant on or before the Target Commencement Date with the Warm Shell Improvements in Suite 5 Substantially Completed. If Landlord fails to timely Deliver Suite 5, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable, except if the first paragraph of Section 2(d) below is applicable. Notwithstanding anything to the contrary contained herein, if Landlord fails to Deliver Suite 5 to Tenant within 30 days after the Target Commencement Date (as such date may be extended by Force Majeure and Tenant Delays, the "**Suite 5 Abatement Date**"), Base Rent payable with respect to Suite 5 shall be abated 1 day for each day (which abatement will be applied commencing on the day immediately following the expiration of the Suite 5 Abatement Period) after the Suite 5 Abatement Date that Landlord fails to Deliver Suite 5 to Tenant. As used in this Section 2(b), the terms "**Warm Shell Improvements**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the Work Letter. For the avoidance of doubt, Substantial Completion of the Warm Shell Improvements will not include the installation of the UPS system being installed by Landlord on behalf of Tenant in Suite 5, which UPS System shall be installed following the Suite 5 Commencement Date.

The "**Suite 5 Commencement Date**" shall be the earlier of: (i) the date Landlord Delivers Suite 5 to Tenant; or (ii) the date Landlord could have Delivered Suite 5 but for Tenant Delays. The "**Suite 5 Rent Commencement Date**" shall be the date that is 150 days after the Suite 5 Commencement Date. The period commencing on the Suite 5 Commencement Date through the day immediately preceding the Suite 5 Rent Commencement Date may be referred to herein as the "**Suite 5 Abatement Period**."

Subject to the provisions of Section 6 of the Work Letter, Landlord shall permit Tenant access to Suite 5 for a period of 30 days prior to the Suite 5 Commencement Date for Tenant's installation and setup of furniture, fixtures and equipment ("**FF&E Installation**") in Suite 5, provided that such FF&E Installation is coordinated with Landlord, and Tenant complies with this Lease and all other reasonable restrictions and conditions Landlord may impose. All such access shall be during normal business hours. Any access to Suite 5 by Tenant before the Suite 5 Commencement Date shall be subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent or Operating Expenses with respect to Suite 5.

Except as set forth in the Work Letter: (i) subject to Landlord's Substantial Completion of the Warm Shell Improvements in Suite 5, Tenant shall accept Suite 5 in its condition as of the Suite 5 Commencement Date; (ii) Tenant shall have no responsibility for defects in the Warm Shell Improvements; and (iii) Tenant's taking possession of Suite 5 shall be conclusive evidence that Tenant accepts Suite 5.

For the period of 60 consecutive days after the Suite 5 Commencement Date, Landlord shall, at its sole cost and expense (which shall not constitute an Operating Expense), be responsible for any repairs that are required to be made to the Building Systems exclusively serving Suite 5 or the Warm Shell Improvements in Suite 1, unless Tenant or any Tenant Party was responsible for the cause of such repair, in which case Tenant shall pay the cost. Tenant shall also have the benefit of any warranties issued to Landlord in connection with the Warm Shell Improvements in Suite 5.

(c) **Suites 2-4**. Landlord shall use reasonable efforts to Deliver Suites 2-4 to Tenant on or before September 1, 2021 (the " **Suites 2-4 Target Commencement Date**"), with the Tenant Improvements in Suites 2-4 Substantially Completed. If Landlord fails to timely Deliver Suites 2-4, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable. Notwithstanding anything to the contrary contained herein, if Landlord fails to Deliver Suites 2-4 to Tenant within 30 days after the Suites 2-4 Target Commencement Date (as such date may be extended by Force Majeure and Tenant Delays, the "**Suites 2-4 Abatement Date**"), Base Rent payable with respect to Suites 2-4 shall be abated 1 day for each day (which abatement will be applied commencing on the day immediately following the expiration of the Suites 2-4 Abatement Period) after the Suites 2-4 Abatement Date that Landlord fails to Deliver Suites 2-4 to Tenant. As used in this Section 2(c), the terms "**Tenant Improvements**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the Work Letter.

The "**Suites 2-4 Commencement Date**" shall be the earlier of: (i) the date Landlord Delivers Suites 2-4 to Tenant; or (ii) the date Landlord could have Delivered Suite 2-4 but for Tenant Delays. The "**Suites 2-4 Rent Commencement Date**" shall be the date that is 150 days after the Suites 2-4 Commencement Date. The period commencing on the Suites 2-4 Commencement Date through the day immediately preceding the Suites 2-4 Rent Commencement Date may be referred to herein as the "**Suites 2-4 Abatement Period**."

Subject to the provisions of Section 6 of the Work Letter, Landlord shall permit Tenant access to Suites 2-4 for a period of 30 days prior to the Suites 2-4 Commencement Date for Tenant's FF&E Installation in Suites 2-4, provided that such FF&E Installation is coordinated with Landlord, and Tenant complies with this Lease and all other reasonable restrictions and conditions Landlord may impose. All such access shall be during normal business hours. Any access to Suites 2-4 by Tenant before the Suites 2-4 Commencement Date shall be subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent or Operating Expenses with respect to Suites 2-4.

Except as set forth in the Work Letter: (i) subject to Landlord's Substantial Completion of the Tenant Improvements in Suites 2-4, Tenant shall accept Suites 2-4 in their condition as of the Suites 2-4 Commencement Date; (ii) Tenant shall have no responsibility for defects in the original construction of the Building or the Tenant Improvements in Suites 2-4; and (iii) Tenant's taking possession of Suites 2-4 shall be conclusive evidence that Tenant accepts Suites 2-4.

For the period of 60 consecutive days after the Suites 2-4 Commencement Date, Landlord shall, at its sole cost and expense (which shall not constitute an Operating Expense), be responsible for any repairs that are required to be made to the Building Systems exclusively serving Suites 2-4 or the Tenant Improvements in Suites 2-4, unless Tenant or any Tenant Party was responsible for the cause of such repair, in which case Tenant shall pay the cost. Tenant shall also have the benefit of any warranties issued to Landlord in connection with the Tenant Improvements in Suites 2-4.

(d) **General**. Notwithstanding anything to the contrary contained in this Section 2, if Landlord does not Deliver either Suite 1 or Suite 5 within 60 days of the Target Commencement Date for any reason other than Force Majeure and Tenant Delays, this Lease may be terminated by Tenant by written notice to Landlord ("**Termination Notice**") within 10 business days of the lapse of such 60 day period, provided, however, that if Tenant delivers a Termination Notice to Landlord, Landlord may suspend such Termination Notice if Landlord reasonably determined (and provides Tenant with reasonable evidence to support such determination) that either or both the Tenant Improvements in Suite 1 and/or the Warm Shell Improvements in Suite 5 shall be Substantially Completed within 30 days after Tenant's delivery of such Termination Notice, in which case this Lease shall continue in effect. If neither the Tenant Improvements in Suite 1 nor the Warm Shell Improvements in Suite 5 are Substantially Completed by the end of such 30-day period, then this Lease shall automatically terminate on the day immediately following the expiration of such 30-day period. If this Lease is terminated by Tenant pursuant to this paragraph, neither Landlord nor Tenant shall have any further rights, duties or obligations under this Lease following such termination, except with respect to provisions which expressly survive termination of this Lease. Notwithstanding anything to the contrary contained herein, if Tenant does not elect to void this Lease within 10 business days of the lapse of such 60 day period, such right to void this Lease shall be waived and this Lease shall remain in full force and effect. For the avoidance of doubt, this paragraph shall have no further force or effect following the Delivery of either Suite 1 or Suite 5 to Tenant.

The earlier to occur of the Suite 1 Commencement Date or the Suite 5 Commencement Date shall be the " **Commencement Date**". Prior to the Suites 2-4 Commencement Date, the term "Premises" as used in this Lease shall mean either Suite 1 or Suite 5 depending on whether the Commencement Date occurs on the Suite 1 Commencement or the Suite 5 Commencement Date and shall mean both Suite 1 and Suite 5 once both the Suite 1 Commencement Date and the Suite 5 Commencement Date have occurred. The Suite 1 Rent Commencement Date, the Suites 2-4 Rent Commencement Date and the Suite 5 Rent Commencement Date may be collectively be referred to herein as "**Rent Commencement Date**". Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Commencement Date, the Suite 1 Commencement Date, the Suites 2-4 Commencement Date, the Suite 5 Commencement Date, the Suite 1 Rent Commencement Date, the Suites 2-4 Rent Commencement Date, the Suite 5 Rent Commencement Date, and the expiration date of the Term when such are established in the form of the "Acknowledgement of Commencement Date" attached to this Lease as **Exhibit D**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder. The " **Term**" of this Lease shall be the Base Term, as defined above on the first page of this Lease and any Extension Terms which Tenant may elect pursuant to Section 39 hereof.

Tenant agrees and acknowledges that, except as otherwise expressly provided in this Lease, neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Premises or the Project, and/or the suitability of the Premises or the Project for the conduct of Tenant's business, and Tenant waives any implied warranty that the Premises or the Project are suitable for the Permitted Use. This Lease constitutes the complete agreement of Landlord and Tenant with respect to the subject matter hereof and supersedes any and all prior representations, inducements, promises, agreements, understandings and negotiations which are not contained herein. Landlord in executing this Lease does so in reliance upon Tenant's representations, warranties, acknowledgments and agreements contained herein.

3. **Rent**.

(a) **Base Rent**. An amount equal to the first full calendar month's Base Rent due with respect to Suite 1 following the Suite 1 Abatement Period shall be due and payable concurrently with Tenant's delivery of an executed copy of this Lease to Landlord. Tenant shall pay to Landlord in advance, without demand, abatement, deduction or set-off, monthly installments of Base Rent on or before the first day of each calendar month during the Term hereof after the Suite 1 Rent Commencement Date with respect to Suite 1, the Suites 2-4 Rent Commencement Date with respect to Suites 2-4 and the Suite 5 Rent Commencement Date with respect to Suite 5, in lawful money of the

United States of America, at the office of Landlord for payment of Rent set forth above, or to such other person or at such other place as Landlord may from time to time designate in writing, or via federally insured wire transfer (including ACH) pursuant to the wire ins tructions provided by Landlord. Payments of Base Rent for any fractional calendar month shall be prorated. The obligation of Tenant to pay Base Rent and other sums to Landlord and the obligations of Landlord under this Lease are independent obligations. Tenant shall have no right at any time to abate, reduce, or set-off any Rent (as defined in Section 5) due hereunder except for any abatement as may be expressly provided in this Lease.

(b) **Additional Rent**. In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent (" **Additional Rent**"): (i) commencing on the Suite 1 Commencement Date with respect to Suite 1, the Suites 2-4 Commencement Date with respect to Suites 2-4 and the Suite 5 Rent Commencement Date with respect to Suite 5, Tenant's Share of "Operating Expenses" (as defined in Section 5), and (ii) any and all other amounts Tenant assumes or agrees to pay under the provisions of this Lease, including, without limitation, any and all other sums that may become due by reason of any default of Tenant or failure to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after any applicable notice and cure period.

4. **Base Rent Adjustments**.

(a) **Annual Adjustments**. Base Rent shall be increased (a) on each annual anniversary of the Suite 1 Rent Commencement Date with respect to Suite 1, (b) on each annual anniversary of the Suites 2-4 Rent Commencement Date with respect to Suites 2-4, and (c) on each annual anniversary of the Suite 5 Rent Commencement Date with respect to Suite 5 (provided, however, that if the applicable Rent Commencement Date occurs on a day other than the first day of a calendar month, then Base Rent payable with respect to the applicable portion of the Premises shall be increased on each annual anniversary of the first day of the first full calendar month immediately following the Rent Commencement Date with respect to such portion of the Premises) (each an "**Adjustment Date**") by multiplying the Base Rent payable with respect to such portion of the Premises immediately before the applicable Adjustment Date by the Rent Adjustment Percentage and adding the resulting amount to the Base Rent payable with respect to such portion of the Premises immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

(b) **Allowance**. Landlord shall, subject to the terms of the Work Letter, make available to Tenant the Allowance (as defined in the Work Letter). Commencing on the Suite 1 Commencement Date and continuing thereafter on the first day of each month during the Base Term, Tenant shall pay the amount necessary to fully amortize the portion of the Allowance actually funded by Landlord, if any, in equal monthly payments with interest at a rate of 8% per annum over the Base Term, which interest shall begin to accrue on the date that Landlord first disburses such Allowance or any portion(s) thereof (" **TI Rent**"). Tenant acknowledges that because a portion of the Allowance may be disbursed following the Commencement Date, the TI Rent payable pursuant to this Section 4(b) may be adjusted following any such disbursement. Any TI Rent remaining unpaid as of the expiration or earlier termination of this Lease resulting from a Default by Tenant under this Lease shall be paid to Landlord in a lump sum at the expiration or earlier termination of this Lease. TI Rent payable pursuant to this Section 4(b), if any, shall in no event be subject to annual adjustments pursuant to Section 4(a).

In lieu of electing any use any portion of the Allowance for Excess TI Costs (as defined in the Work Letter), Tenant may elect by delivery of written notice to Landlord prior to April 1, 2021, to reduce the amount of abated Base Rent available to Tenant with respect to Suite 1, Suite 5 and/or Suites 2-4 ("**Abatement Reduction**") and apply an amount equal to such Abatement Reduction to pay for Excess TI Costs incurred under the Lease. The total amount of abated Base Rent contemplated in Section 2 above (i) with respect to Suite 1 during the Suite 1 Abatement Period is equal to $133,705.00 (" **Suite 1 Abatement Amount**"), (ii) with respect to Suite 5 during the Suite 5 Abatement Period is equal to $103,628.00 (" **Suite 5 Abatement Amount**"), and (ii) with respect to Suites 2-4 during the Suites 2-4 Abatement Period is equal to $424,256.25 ("**Suites 2-4 Abatement Amount**"). To the extent that Tenant

timely elects an Abatement Reduction in connection with Excess TI Costs, the amount of the Abatement Reduction shall first be applied against the Suite 1 Abatement Amount. To the extent that the Abatement Reduction exceeds the Suite 1 Abatement Amount, such additional amount of the Abatement Reduction shall be applied against the Suite 5 Abatement Amount and to the extent that the Abatement Reduction exceeds both the Suite 1 Abatement Amount and the Suite 5 Abatement Amount then, such additional amount of the Abatement Reduction shall be applied against the Suites 2-5 Abatement Amount until such Suites 2-4 Abatement Amount is exhausted and Tenant shall be required to pay for any additional Excess TI Costs .

5. **Operating Expense Payments**. Landlord shall deliver to Tenant a written estimate of Operating Expenses for each calendar year during the Term (the "**Annual Estimate**"), which may be revised by Landlord from time to time during such calendar year (but no more than twice in any calendar year). Commencing on the Suite 1 Commencement Date with respect to Suite 1, on the Suites 2-4 Commencement Date with respect to Suites 2-4 and commencing on the Suite 5 Rent Commencement Date with respect to Suite 5, and continuing thereafter on the first day of each month during the Term, Tenant shall pay Landlord an amount equal to 1/12th of Tenant's Share of the Annual Estimate (i.e, 18.69% with respect to Suite 1, 59.32% with respect to Suites 2-4 and 21.99% with respect to Suite 5). Payments for any fractional calendar month shall be prorated.

The term "**Operating Expenses**" means all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Building (including the Building's Share of all costs and expenses of any kind or description incurred or accrued by Landlord with respect to the Project which are not specific to the Building) including, without duplication, (v) Taxes (as defined in Section 9), (w) insurance carried by Landlord pursuant to Section 17, (x) the cost of enhanced services provided at the Project (outside the Building) which are reasonably intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of communicable diseases and/or viruses of any kind or nature (collectively, "**Infectious Conditions**"), (y) Permitted Capital Improvements (as defined below) amortized over the lesser of 10 years and the useful life of such Permitted Capital Improvements, and (z) the costs of Landlord's third party property manager or, if there is no third party property manager, administration rent in the amount of 3% of Base Rent (provided that during the Suite 1 Abatement Period and Suites 2-4 Abatement Period, respectively, Tenant shall nonetheless be required to pay administration rent each month equal to the amount of the administration rent that Tenant would have been required to pay in the absence of there being such Suite 1 Abatement Period or Suites 2-4 Abatement Period), excluding only:

(a) the original construction costs of the Project and renovation prior to the Commencement Date and costs of correcting defects in such original construction or renovation;

(b) capital expenditures other than those capital repairs improvements and replacements that: (1) are required in order to comply with Legal Requirements (other than compliance with those Legal Requirements for which Landlord is, at Landlord's sole cost and expense, responsible for compliance with pursuant the provisions of the first sentence of the second paragraph of Section 7 below); (2) actually reduce Operating Expenses, (3) maintain or improve the utility, efficiency or capacity of the Building, any Building Systems or the Common Areas of the Project, (4) are incurred in connection with repairs that extend the life of any capital items and/or (5) are triggered by Tenant's particular use of the Premises or Tenant's Alterations (collectively, " **Permitted Capital Improvements**");

(c) interest, principal payments of Mortgage (as defined in Section 27) debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured, and all payments of base rent (but not taxes or operating expenses) under any ground lease or other underlying lease of all or any portion of the Project;

(d) depreciation of the Project (except for capital improvements, the cost of which are includable in Operating Expenses);

(e) advertising, marketing, legal and space planning expenses and leasing commissions , brokerage fees, legal fees and other costs and expenses incurred in procuring, negotiating and leasing space to tenants for the Project, including any leasing office maintained in the Project, free rent and construction allowances for tenants;

(f) legal and other expenses incurred in the negotiation (including the preparation of letters, deal memos, letters of intent, and lease documents) or enforcement of leases;

(g) costs of completing, fixturing, improving, renovating, painting, redecorating or other work (including any permitting license or inspection costs), which Landlord pays for or performs for other tenants within their premises, and costs of correcting defects in such work;

(h) costs to be reimbursed by other tenants of the Project or Taxes to be paid directly by Tenant or other tenants of the Project, whether or not actually paid;

(i) salaries, wages, benefits and other compensation paid to (i) personnel of Landlord or its agents or contractors above the position of the person, regardless of title, who has day-to-day management responsibility for the Project or (ii) officers and employees of Landlord or its affiliates who are not assigned in whole or in part to the operation, management, maintenance or repair of the Project; provided, however, that with respect to any such person who does not devote substantially all of his or her employed time to the Project, the salaries, wages, benefits and other compensation of such person shall be prorated to reflect time spent on matters related to operating, managing, maintaining or repairing the Project in comparison to the time spent on matters unrelated to operating, managing, maintaining or repairing the Project;

(j) general organizational, administrative and overhead costs relating to maintaining Landlord's existence, either as a corporation, partnership, or other entity, including general corporate, legal and accounting expenses;

(k) costs (including attorneys' fees and costs of settlement, judgments and payments in lieu thereof) incurred in connection with disputes with tenants, other occupants, or prospective tenants, and costs and expenses, including legal fees, incurred in connection with negotiations or disputes with employees, consultants, management agents, leasing agents, purchasers or mortgagees of the Building;

(l) costs incurred by Landlord due to the violation by Landlord, its employees, agents or contractors or any tenant of the terms and conditions of any lease or other agreement relating to space in the Project or any Legal Requirement (as defined in Section 7);

(m) penalties, fines or interest incurred as a result of Landlord's inability or failure to make payment of Taxes or other payments when due and/or to file any tax or informational returns when due, or from Landlord's failure to make any payment of Taxes or other amounts required to be made by Landlord hereunder before delinquency;

(n) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services rendered by unaffiliated third parties on a competitive basis;

(o) costs of Landlord's charitable or political contributions, or costs for sculpture, paintings or other objects of art or the insuring, repair or maintenance thereof;

(p) costs in connection with services and Utilities (including electricity), items or other benefits of a type which are not standard for the Project and/or which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, whether or not such other tenant or occupant is specifically charged therefor by Landlord;

(q) costs incurred in the sale or refinancing of the Project;

(r) net income taxes of Landlord or the owner of any interest in the Project, franchise, capital stock, gift, estate or inheritance taxes or any federal, state or local documentary taxes imposed against the Project or any portion thereof or interest therein;

(s) costs incurred in removing and storing the property of former tenants or occupants of the Project;

(t) rentals of equipment ordinarily considered to be of a capital nature (such as elevators and HVAC systems) except if such equipment is reasonably and customarily leased either temporarily or permanently in the operation of comparable office and laboratory buildings in the Thousand Oaks area;

(u) costs of repairs or other work necessitated by fire, windstorm or other casualty; provided such costs of repairs or other work shall be paid by the parties in accordance with the provisions of Section 18;

(v) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by insurance (or, if Landlord fails to maintain the insurance required to be carried by Landlord pursuant to Section 17, would have been reimbursed by insurance required to be carried by Landlord pursuant to Section 17);

(w) the cost of maintaining Common Areas available for the exclusive use of other tenants of the Project;

(x) costs incurred in the sale or refinancing all or a portion of the Project, including, but not limited to, any closing costs, title insurance premiums, transfer and all other recordation taxes and charges incurred in connection with the same;

(y) the cost of signs at the Project identifying Landlord or other tenants of the Project;

(z) costs to the extent arising from the gross negligence or willful misconduct of Landlord or its agents or employees;

(aa) costs reimbursable to Landlord under any warranty carried by Landlord for the Building or the Project or any portion thereof;

(bb) expenses specific to other tenants of the Project or Project amenities not accessible to or by Tenant;

(cc) any costs incurred to remove, study, test or remediate Hazardous Materials in or about the Building or the Project for which Tenant is not responsible under this Lease;

(dd) any reserves (other than reserves for Taxes for the then-current year);

(ee) costs incurred by Landlord in connection with rooftop communications equipment of Landlord or other persons (other than Tenant) in, on or about the Project;

(ff) any bad debt loss or rent loss;

(gg) any costs, fees, dues, contributions or similar expenses for industry associations or similar organizations;

(hh) entertainment expenses and travel expenses of Landlord, its employees, agents, partners and affiliates;

(ii) any profit made by Landlord in connection with Landlord's collections of Operating Expenses;

(jj) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project.

In addition, notwithstanding anything to the contrary contained in this Lease, Operating Expenses incurred or accrued by Landlord with respect to any capital improvements which are reasonably expected by Landlord to reduce overall Operating Expenses (for example, without limitation, by reducing energy usage at the Project) (the "**Energy Savings Costs**") shall be amortized over a period of years equal to the least of (A) 10 years, (B) the useful life of such capital items, or (C) the quotient of (i) the Energy Savings Costs, divided by (ii) the annual amount of Operating Expenses reasonably expected by Landlord to be saved as a result of such capital improvements.

Within 90 days after the end of each calendar year (or such longer period as may be reasonably required), Landlord shall furnish to Tenant a statement (an "**Annual Statement**") showing in reasonable detail: (a) the total and Tenant's Share of actual Operating Expenses for the previous calendar year, and (b) the total of Tenant's payments in respect of Operating Expenses for such year. If Tenant's Share of actual Operating Expenses for such year exceeds Tenant's payments of Operating Expenses for such year, the excess shall be due and payable by Tenant as Rent within 30 days after delivery of such Annual Statement to Tenant. If Tenant's payments of Operating Expenses for such year exceed Tenant's Share of actual Operating Expenses for such year Landlord shall pay the excess to Tenant within 30 days after delivery of such Annual Statement, except that after the expiration, or earlier termination of the Term or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. Landlord's and Tenant's obligations to pay any overpayments or deficiencies due pursuant to this paragraph shall survive the expiration or earlier termination of this Lease.

The Annual Statement shall be final and binding upon Tenant unless Tenant, within 90 days after Tenant's receipt thereof, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reason therefor. If, during such 90 day period, Tenant questions or contests the accuracy of Landlord's statement of Tenant's Share of Operating Expenses, Landlord will provide Tenant with access to Landlord's books and records relating to the operation of the Project and such information as Landlord reasonably determines to be responsive to Tenant's questions (the "**Expense Information**"). If after Tenant's review of such Expense Information, Landlord and Tenant cannot agree upon the amount of Tenant's Share of Operating Expenses, Tenant shall have the right to have a regionally or nationally recognized independent public accounting firm or an auditing firm selected by Tenant, working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense), audit and/or review the Expense Information for the year in question (the "**Independent Review**"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that the payments actually made by Tenant with respect to Operating Expenses for the calendar year in question exceeded Tenant's Share of Operating Expenses for such calendar year, Landlord shall at Landlord's option either (i) credit the excess amount to the next succeeding installments of estimated Operating Expenses or (ii) pay the excess to Tenant within 30 days after delivery of such statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Operating Expenses for such calendar year were less than Tenant's Share of Operating Expenses for the calendar year, Tenant shall pay the deficiency to Landlord within 30 days after delivery of such statement. If the Independent Review shows that Tenant has overpaid with respect to Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all costs incurred by Tenant for the Independent Review. Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall be prorated.

"**Tenant's Share**" shall be the percentage set forth on the first page of this Lease as "Tenant's Share of Operating Expenses of Building." "**Building Share**" shall be the percentage set forth on the first page of this Lease as "Building Share of Operating Expenses of Project," as reasonably adjusted by Landlord solely for changes in the physical size of the Project occurring thereafter. If Landlord has a reasonable basis for doing so, Landlord may equitably increase Tenant's 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 that includes the Premises or that varies with occupancy or use. Base Rent, Tenant's Share of Operating Expenses and all other amounts payable by Tenant to Landlord hereunder are collectively referred to herein as "**Rent**."

6. **Intentionally Omitted**.

7. **Use**. The Premises shall be used solely for the Permitted Use set forth in the basic lease provisions on page 1 of this Lease, and in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and to the use and occupancy thereof, including, without limitation, the Americans With Disabilities Act, 42 U.S.C. § 12101, et seq. (together with the regulations promulgated pursuant thereto, "**ADA**") (collectively, "**Legal Requirements**" and each, a "**Legal Requirement**"). Tenant shall, upon 5 days' written notice from Landlord, discontinue any use of the Premises which is declared by any Governmental Authority (as defined in Section 9) having jurisdiction to be a violation of a Legal Requirement. Tenant will not use or permit the Premises to be used for any purpose or in any manner that would void Tenant's insurance or could reasonably be expected to result in the voidance of Landlord's insurance. Tenant shall not permit any part of the Premises to be used as a "place of public accommodation", as defined in the ADA or any similar legal requirement. Tenant shall reimburse Landlord within 10 days after written demand therefor for any additional premium charged for any such insurance policy by reason of Tenant's failure to comply with the provisions of this Section or otherwise caused by Tenant's use and/or occupancy of the Premises (along with reasonable evidence and justification of such additional premiums). Tenant will use the Premises in a careful and safe manner and will not commit or permit waste, overload the floor or structure of the Premises, subject the Premises to use that would damage the Premises or obstruct or interfere with the rights of Landlord or other tenants or occupants of the Project, including conducting or giving notice of any auction, liquidation, or going out of business sale on the Premises, or using or allowing the Premises to be used for any unlawful purpose. Tenant shall cause any equipment or machinery to be installed in the Premises so as to reasonably prevent sounds or vibrations from the Premises from extending outside the Building. Tenant shall not place any machinery or equipment that would overload the floor in or upon the Premises or transport or move such items through the Common Areas of the Project or in the Project elevators without the prior written consent of Landlord, which shall not be unreasonably withheld, conditioned or delayed. Except as may be provided under the Work Letter, Tenant shall not, without the prior written consent of Landlord, use the Premises in any manner which will require ventilation, air exchange, heating, gas, steam, electricity or water beyond the existing capacity of the Project as proportionately allocated to the Premises based upon Tenant's Share as usually furnished for the Permitted Use.

Landlord shall be responsible, at Landlord's cost and not as part of Operating Expenses, for the compliance of (i) the Common Areas of the Project with Legal Requirements (including the ADA) as of the Commencement Date, (ii) the Suite 1 Premises with Legal Requirements (including the ADA) as of the Suite 1 Commencement Date, (iii) the Suites 2-4 Premises with Legal Requirements (including the ADA) as of the Suites 2-4 Commencement Date, and (iv) the Suite 5 Premises with Legal Requirements (including the ADA) as of the Suite 5 Commencement Date. Following the Commencement Date, Landlord shall, as an Operating Expense (to the extent such Legal Requirement is generally applicable to similar buildings in the area in which the Project is located) and at Tenant's expense (to the extent such Legal Requirement is triggered by reason of Tenant's, as compared to other tenants of the Project, specific use of the Premises (as opposed to general laboratory and office use) or Tenant's Alterations) make any alterations or modifications to the Common Areas or the exterior of the Building that are required by Legal Requirements. Except as otherwise provided in the 2 immediately preceding sentences, Tenant, at its sole expense, shall make any alterations or modifications to the interior of the

Premises that are required by Legal Requirements (including, without limitation, compliance of the Premises with the ADA) related to Tenant 's specific use of the Premises (as opposed to general laboratory and office use) . Notwithstanding any other provision herein to the contrary, Tenant shall be responsible for any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages or judgments, and all reasonable expenses incurred in investigating or resisting the same (including, without limitation, reasonable attorneys' fees, charges and disbursements and costs of suit) (collectively, "**Claims**") arising out of or in connection with Legal Requirements related to Tenant's specific use (as opposed to general laboratory and office use) of the Premises or Tenant's Alterations, and Tenant shall indemnify, defend, hold and save Landlord harmless from and against any and all Claims arising out of or in connection with any failure of the Premises to comply with any Legal Requirement related to Tenant's use or occupancy of the Premises or Tenant' s Alterations.

Tenant acknowledges that Landlord may, but shall not be obligated to, seek to obtain Leadership in Energy and Environmental Design (LEED), WELL Building Standard, or other similar "green" certification with respect to the Project and/or the Premises, and Tenant agrees to reasonably cooperate with Landlord, and to provide such information and/or documentation as Landlord may reasonably request, in connection therewith.

8. **Holding Over**. If, with Landlord's express written consent, Tenant retains possession of the Premises after the termination of the Term, (i) unless otherwise agreed in such written consent, such possession shall be subject to termination by Landlord upon 30 days' notice to Tenant, (ii) all of the other terms and provisions of this Lease (including, without limitation, the adjustment of Base Rent pursuant to Section 4 hereof) shall remain in full force and effect (excluding any expansion or renewal option or other similar right or option) during such holdover period, (iii) Tenant shall continue to pay Base Rent in the amount payable upon the date of the expiration or earlier termination of this Lease or such other amount as Landlord may indicate, in Landlord's sole and absolute discretion, in such written consent, and (iv) all other payments shall continue under the terms of this Lease. If Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without the express written consent of Landlord, (A) Tenant shall become a tenant at sufferance upon the terms of this Lease except that the monthly rental shall be equal to 150% of Rent in effect during the last 30 days of the Term, and (B) if Tenant holds over for a period in excess of 90 days, Tenant shall be responsible for all damages suffered by Landlord resulting from or occasioned by Tenant's holding over, including consequential damages; provided, however, that if Tenant delivers a written inquiry to Landlord within 30 days prior to the expiration or earlier termination of the Term, Landlord will notify Tenant whether the potential exists for consequential damages. 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 Section 8 shall not be construed as consent for Tenant to retain possession of the Premises. Acceptance by Landlord of Rent after the expiration of the Term or earlier termination of this Lease shall not result in a renewal or reinstatement of this Lease.

9. **Taxes**. Landlord shall pay, as part of Operating Expenses, all taxes, levies, fees, assessments and governmental charges of any kind, existing as of the Commencement Date or thereafter enacted (collectively referred to as "**Taxes**"), imposed by any federal, state, regional, municipal, local or other governmental authority or agency, including, without limitation, quasi-public agencies (collectively, "**Governmental Authority**") during the Term, including, without limitation, all Taxes: (i) imposed on or measured by or based, in whole or in part, on rent payable to (or gross receipts received by) Landlord under this Lease and/or from the rental by Landlord of the Project or any portion thereof, or (ii) based on the square footage, assessed value or other measure or evaluation of any kind of the Premises or the Project, or (iii) assessed or imposed by or on the operation or maintenance of any portion of the Premises or the Project, including parking, or (iv) assessed or imposed by, or at the direction of, or resulting from Legal Requirements, or interpretations thereof, promulgated by any Governmental Authority, or (v) imposed as a license or other fee, charge, tax, or assessment on Landlord's business or occupation of leasing space in the Project. Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or liens securing Taxes. Notwithstanding anything to the contrary herein, Landlord shall only charge Tenant for assessments as if those assessments were paid by

Landlord over the longest possible term which Landlord is permitted to pay for the applicable assessments without additional charge other than interest, if any, provided under the terms of the underlying assessments. Taxes shall not include any net income taxes imposed on Landlord except to the extent such net income taxes are in substitution for any Taxes payable hereunder. If any such Tax 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 pay, prior to delinquency, any and all Taxes levied or assessed against any personal property or trade fixtures placed by Tenant in the Premises, whether levied or assessed against Landlord or Tenant. If any Taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property, or if the assessed valuation of the Project is increased by a value attributable to improvements in or alterations to the Premises, whether owned by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, higher than the base valuation on which Landlord from time-to-time allocates Taxes to all tenants in the Project, Landlord shall have the right, but not the obligation, to pay such Taxes. Landlord's determination of any excess assessed valuation shall be binding and conclusive, absent manifest error. The amount of any such payment by Landlord shall constitute Additional Rent due from Tenant to Landlord immediately upon demand.

10. **Parking**. Subject to all applicable Legal Requirements, Force Majeure, a Taking (as defined in Section 19 below) and the exercise by Landlord of its rights hereunder, Tenant shall have the right, at no additional cost to Tenant during the Base Term, in common with other tenants of the Project pro rata in accordance with the rentable area of the Premises and the rentable areas of the Project occupied by such other tenants, to park in those areas designated for non-reserved parking, subject in each case to Landlord's rules and regulations. As of the Commencement Date, Tenant's pro rata share of parking with respect to the entire Premises shall be equal to 131 parking spaces. Landlord may allocate parking spaces among Tenant and other tenants in the Project pro rata as described above if Landlord determines that such parking facilities are becoming crowded.

11. **Utilities, Services**. Landlord shall provide, subject to the terms of this Section 11, water, electricity, heat, light, power, sewer, and other utilities (including gas and fire sprinklers to the extent the Project is plumbed for such services), with respect to the Common Areas only, refuse and trash collection and routine janitorial services (which will be provided with respect to the Common Areas 5 days per week) (collectively, "**Utilities**"). Landlord shall pay, as Operating Expenses or subject to Tenant's reimbursement obligation, for all Utilities used on the Premises, all maintenance charges for Utilities, and any storm sewer charges or other similar charges for Utilities imposed by any Governmental Authority or Utility provider, and any taxes, penalties, surcharges or similar charges thereon. Landlord may cause, at Tenant's expense at Landlord's expense (except to the extent necessary as a result of Tenant's disproportionate use of Utilities), any Utilities to be separately metered or charged directly to Tenant by the provider. Tenant shall pay directly to the Utility provider, prior to delinquency, any separately metered Utilities and services which may be furnished to Tenant or the Premises during the Term. Tenant shall pay, as part of Operating Expenses, its share of all charges for jointly metered Utilities based upon consumption, as reasonably determined by Landlord. No interruption or failure of Utilities, from any cause whatsoever other than Landlord's willful misconduct, shall result in eviction or constructive eviction of Tenant, termination of this Lease or the abatement of Rent. Tenant agrees to limit use of water and sewer with respect to Common Areas to normal restroom use. Tenant shall be responsible for obtaining and paying for its own janitorial services for the Premises.

Notwithstanding anything to the contrary set forth herein, if (i) a stoppage of an Essential Service (as defined below) to the Premises shall occur and such stoppage is due solely to the negligence or willful misconduct of Landlord and not due in any part to any act or omission on the part of Tenant or any Tenant Party or any matter beyond Landlord's reasonable control (any such stoppage of an Essential Service being hereinafter referred to as a "**Service Interruption**"), and (ii) such Service Interruption continues for more than 5 consecutive business days after Landlord shall have received written notice thereof from Tenant, and (iii) as a result of such Service Interruption, the conduct of Tenant's normal operations in the Premises are materially and adversely affected, then there shall be an abatement of one day's Base Rent for each day during which such Service Interruption continues after such 5 business day

period; provided, however, that if any part of the Premises is reasonably useable for Tenant's normal business operations or if Tenant conducts all or any part of its operations in any portion of the Premises notwithstanding such Service Interruption, then the amount of each daily abatement of Base Rent shall only be proportionate to the nature and extent of the interruption of Tenant's normal operations or ability to use the Premises. Other than the self-help rights set forth in Section 31 below, the rights granted to Tenant under this paragraph shall be Tenant's sole and exclusive remedy resulting from a failure of Landlord to provide services, and Landlord shall not otherwise be liable for any loss or damage suffered or sustained by Tenant resulting from any failure or cessation of services. For purposes hereof, the term "**Essential Services**" shall mean the following services: HVAC service, water, sewer and electricity, but in each case only to the extent that Landlord has an obligation to provide same to Tenant under this Lease.

Landlord's sole obligation for either providing emergency generator or providing emergency back-up power to Tenant shall be: (i) to provide an emergency generator with not less than the capacity of the emergency generator being installed as part of Landlord's Work under the Work Letter, and (ii) to contract with a third party to maintain the emergency generator as per the manufacturer's standard maintenance guidelines. Except as otherwise provided in the immediately preceding sentence, Landlord shall have no obligation to provide Tenant with operational emergency generator or back-up power or to supervise, oversee or confirm that the third party maintaining the emergency generator is maintaining the generator as per the manufacturer's standard guidelines or otherwise. Notwithstanding anything to the contrary contained herein, Landlord shall, at least once per month as part of the maintenance of the Building, run the emergency generator for a period reasonably determined by Landlord for the purpose of determining whether it operates when started. Landlord shall, upon written request from Tenant (not more frequently than once per calendar year), make available for Tenant's inspection the maintenance contract and maintenance records for the emergency generator for the 12 month period immediately preceding Landlord's receipt of Tenant's written request. During any period of replacement, repair or maintenance of the emergency generator when the emergency generator is not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide Tenant with an alternative back-up generator or alternative sources of back-up power. Tenant expressly acknowledges and agrees that Landlord does not guaranty that such emergency generator will be operational at all times or that emergency power will be available to the Premises when needed.

Tenant agrees to provide Landlord with access to Tenant's water and/or energy usage data on a monthly basis, either by providing Tenant's applicable utility login credentials to Landlord's Measurabl online portal, or by another delivery method reasonably agreed to by Landlord and Tenant. The costs and expenses incurred by Landlord in connection with receiving and analyzing such water and/or energy usage data (including, without limitation, as may be required pursuant to applicable Legal Requirements) shall be included as part of Operating Expenses.

12. **Alterations and Tenant's Property**. Any alterations, additions, or improvements made to the Premises by or on behalf of Tenant, including additional locks or bolts of any kind or nature upon any doors or windows in the Premises, but excluding installation, removal or realignment of furniture systems (other than removal of furniture systems owned or paid for by Landlord) not involving any modifications to the structure or connections (other than by ordinary plugs or jacks) to Building Systems (as defined in Section 13) ("**Alterations**") shall be subject to Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion if any such Alteration affects the structure or Building Systems and shall not be otherwise unreasonably withheld. Tenant may construct nonstructural Alterations in the Premises without Landlord's prior approval if the aggregate cost of all such work in any 12 month period does not exceed $100,000.00 (a "**Notice-Only Alteration**"), provided Tenant notifies Landlord in writing of such intended Notice-Only Alteration, and such notice shall be accompanied by plans, specifications, work contracts and such other information concerning the nature and cost of the Notice-Only Alteration as may be reasonably requested by Landlord, which notice and accompanying materials shall be delivered to Landlord not less than 15 business days in advance of any proposed construction. If Landlord approves any Alterations, Landlord may impose such conditions on Tenant in connection with the commencement, performance and completion of such Alterations as Landlord may

deem appropriate in Landlord's reasonable discretion. Any request for approval shall be in writing, delivered not less than 15 business days in advance of any proposed construction, and accompanied by plans, specifications, bid proposals, work contracts and such other information concerning the nature and cost of the alterations as may be reasonably requested by Landlord, including the identities and mailing addresses of all persons performing work or supplying materials. 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 ensure that such plans and specifications or construction comply with applicable Legal Requirements. Tenant shall cause, at its sole cost and expense, all Alterations to comply with insurance requirements and with Legal Requirements and shall implement at its sole cost and expense any alteration or modification required by Legal Requirements as a result of any Alterations. Tenant shall pay to Landlord, as Additional Rent, on demand an amount equal to 1% of all charges incurred by Tenant or its contractors or agents in connection with any Alteration to cover Landlord's overhead and expenses for plan review, coordination, scheduling and supervision. Before Tenant begins any Alteration, Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall indemnify and hold Landlord harmless from, any expense incurred by Landlord by reason of faulty work done by Tenant or its contractors or inadequate cleanup.

Tenant shall furnish security or make other arrangements satisfactory to Landlord to assure payment for the completion of all Alterations work free and clear of liens, and shall provide (and cause each contractor or subcontractor to provide) certificates of insurance for workers' 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 Alterations, Tenant shall deliver to Landlord: (i) sworn statements setting forth the names of all contractors and subcontractors who did the work and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for any such Alteration.

Except for Removable Installations (as hereinafter defined), all Installations (as hereinafter defined) shall be and shall remain the property of Landlord during the Term and following the expiration or earlier termination of the Term, shall not be removed by Tenant at any time during the Term, and shall remain upon and be surrendered with the Premises as a part thereof. Notwithstanding the foregoing, Landlord may, at the time its approval of any such Installation is requested, or at the time it receives notice of a Notice-Only Alteration, notify Tenant that Landlord requires that Tenant remove such Installation upon the expiration or earlier termination of the Term, in which event Tenant shall remove such Installation in accordance with the immediately succeeding sentence. Upon the expiration or earlier termination of the Term, Tenant shall remove (i) all wires, cables or similar equipment which Tenant has installed in the Premises or in the risers or plenums of the Building, (ii) any Installations for which Landlord has given Tenant notice of removal in accordance with the immediately preceding sentence, and (iii) all of Tenant's Property (as hereinafter defined), and Tenant shall restore and repair any damage caused by or occasioned as a result of such removal, including, without limitation, capping off all such connections behind the walls of the Premises and repairing any holes. During any restoration period beyond the expiration or earlier termination of the Term, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant. If Landlord is requested by Tenant or any lender, lessor or other person or entity claiming an interest in any of Tenant's Property to waive any lien Landlord may have against any of Tenant's Property, and Landlord consents to such waiver, then Landlord shall be entitled to reimbursement from Tenant for its actual, reasonable out-of-pocket costs incurred in connection with the preparation and negotiation of each such waiver of lien.

For purposes of this Lease, (x) "**Removable Installations**" means any items listed on **Exhibit F** attached hereto and any items agreed by Landlord in writing to be included on **Exhibit F** in the future, (y) "**Tenant's Property**" means Removable Installations and, other than Installations, any personal property or equipment of Tenant that may be removed without material damage to the Premises, and (z) "**Installations**" means all property of any kind paid for by Landlord, all Alterations, all fixtures, and all partitions, hardware, built-in machinery, built-in casework and cabinets and other similar additions, equipment, property and improvements built into the Premises so as to become an integral part of the Premises, including, without limitation, fume hoods which penetrate the roof or plenum area, built-in cold

rooms, built-in warm rooms, walk-in cold rooms, walk-in warm rooms, deionized water systems, glass washing equipment, autoclaves, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch.

Landlord hereby approves of the following "**Approved Alterations**": (A) the installation of a UPS system serving Suite 5, and (B) the construction of improvements required to convert Suite 5 from warehouse space to laboratory space and/or a pilot plant. Such Approved Alterations shall be performed by Tenant (using architects and contractors selected by Tenant and approved by Landlord), at Tenant's sole cost and expense, subject to the terms of this Section 12 and any other conditions that Landlord may reasonably impose.

13. **Landlord's Repairs**. Landlord, as an Operating Expense, shall maintain all of the structural, exterior, parking and other Common Areas of the Project, including HVAC, plumbing, fire sprinklers, elevators and all other building systems serving the Premises and other portions of the Project ("**Building Systems**"), in good repair, reasonable wear and tear and uninsured losses and damages caused by Tenant, or by any of Tenant's assignees, sublessees, licensees, agents, servants, employees, invitees and contractors (or any of Tenant's assignees, sublessees and/or licensees respective agents, servants, employees, invitees and contractors) (collectively, "**Tenant Parties**") excluded. Losses and damages caused by Tenant or any Tenant Party shall be repaired by Landlord, to the extent not covered by insurance, at Tenant's sole cost and expense. Landlord reserves the right to stop Building Systems services when necessary (i) by reason of accident or emergency, or (ii) for planned repairs, alterations or improvements, which are, in the judgment of Landlord, desirable or necessary to be made, until said repairs, alterations or improvements shall have been completed. Landlord shall have no responsibility or liability for failure to supply Building Systems services during any such period of interruption; provided, however, that Landlord shall, except in case of emergency, shall give not less than Tenant 24 hours' advance notice of any planned stoppage of Building Systems services for routine maintenance, repairs, alterations or improvements. Tenant shall promptly give Landlord written notice of any repair required by Landlord pursuant to this Section, after which Landlord shall make a commercially reasonable effort to effect such repair. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after Tenant's written notice of the need for such repairs or maintenance. Tenant waives its rights under any state or local law to terminate this Lease or, except as otherwise set forth in Section 31 with respect to Tenant's self-help rights, to make such repairs at Landlord's expense and agrees that the parties' respective rights with respect to such matters shall be solely as set forth herein. Repairs required as the result of fire, earthquake, flood, vandalism, war, or similar cause of damage or destruction shall be controlled by Section 18.

14. **Tenant's Repairs**. Subject to Section 13 hereof, Tenant, at its expense, shall repair, replace and maintain in good condition all portions of the Premises, including, without limitation, entries, doors, ceilings, interior windows, interior walls, and the interior side of demising walls. Should Tenant fail to make any such repair or replacement or fail to maintain the Premises, Landlord shall give Tenant notice of such failure. If Tenant fails to commence cure of such failure within 10 days of Landlord's notice, and thereafter diligently prosecute such cure to completion, Landlord may perform such work and shall be reimbursed by Tenant within 10 days after demand therefor; provided, however, that if such failure by Tenant creates or could create an emergency, Landlord may immediately commence cure of such failure and shall thereafter be entitled to recover the costs of such cure from Tenant. Subject to Sections 17 and 18, Tenant shall bear the full uninsured cost of any repair or replacement to any part of the Project that results from damage caused by Tenant or any Tenant Party and any repair that benefits only the Premises.

15. **Mechanic's Liens**. Tenant shall discharge, by bond or otherwise, any mechanic's lien filed against the Premises or against the Project for work claimed to have been done for, or materials claimed to have been furnished to, Tenant within 10 days after the filing thereof, at Tenant's sole cost and shall otherwise keep the Premises and the Project free from any liens arising out of work performed, materials furnished or obligations incurred by Tenant. Should Tenant fail to discharge any lien described herein, Landlord shall have the right, but not the obligation, to pay such claim or post a bond or otherwise provide security to eliminate the lien as a claim against title to the Project and the cost thereof shall be

immediately due from Tenant as Additional Rent. If Tenant shall lease or finance the acquisition of office equipment, furnishings, or other personal property of a removable nature utilized by Tenant in the operation of Tenant's business, Tenant warrants that any Uniform Commercial Code Financing Statement filed as a matter of public record by any lessor or creditor of Tenant will upon its face or by exhibit thereto indicate that such Financing Statement is applicable only to removable personal property of Tenant located within the Premises. In no event shall the address of the Project be furnished on the statement without qualifying language as to applicability of the lien only to removable personal property, located in an identified suite held by Tenant.

16. **Indemnification**. Subject to all of the other provisions of this Lease including, without limitation, the waivers provided for in Section 17, Tenant hereby indemnifies and agrees to defend, save and hold Landlord, its officers, directors, employees, managers, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Indemnified Parties**") harmless from and against any and all Claims for injury or death to persons or damage to property occurring within or about the Premises or the Project arising directly or indirectly out of use or occupancy of the Premises or the Project (including, without limitation, any act, omission or neglect by Tenant or any Tenant's Parties in or about the Premises or at the Project) or a breach or default by Tenant in the performance of any of its obligations hereunder, unless caused solely by the willful misconduct or gross negligence of Landlord Indemnified Parties. Landlord shall not be liable to Tenant for, and Tenant assumes all risk of damage to, personal property (including, without limitation, loss of records kept within the Premises). Tenant further waives any and all Claims for injury to Tenant's business or loss of income relating to any such damage or destruction of personal property (including, without limitation, any loss of records). Landlord Indemnified Parties shall not be liable for any damages arising from any act, omission or neglect of any tenant in the Project or of any other third party or Tenant Parties.

Subject to all of the other provisions of this Lease including, without limitation, the waivers provided for in Section 17, Landlord hereby indemnifies and agrees to defend, save and hold Tenant harmless from and against any and all Claims for injury or death to persons or damage to property occurring at the Project (outside of the Premises) to the extent caused by the willful misconduct or negligence of Landlord.

All obligations of Tenant and Landlord under this Section 16 shall survive the expiration or earlier termination of the Term.

17. **Insurance**. Landlord shall maintain all risk property and, if applicable, sprinkler damage insurance covering the full replacement cost of the Project. Landlord shall further procure and maintain commercial general liability insurance with a single loss limit of not less than $2,000,000 for bodily injury and property damage with respect to the Project. Landlord may, but is not obligated to, maintain such other insurance and additional coverages as it may deem necessary, including, but not limited to, flood, environmental hazard and earthquake, loss or failure of building equipment, errors and omissions, rental loss during the period of repair or rebuilding, workers' compensation insurance and fidelity bonds for employees employed to perform services and insurance for any improvements installed by Tenant or which are in addition to the standard improvements customarily furnished by Landlord without regard to whether or not such are made a part of the Project. All such insurance shall be included as part of the Operating Expenses. The Project may be included in a blanket policy (in which case the cost of such insurance allocable to the Project will be determined by Landlord based upon the insurer's cost calculations).

Tenant, at its sole cost and expense, shall maintain during the Term: all risk property insurance with business interruption and extra expense coverage, covering the full replacement cost of all property and improvements installed or placed in the Premises by Tenant at Tenant's expense; workers' compensation insurance with no less than the minimum limits required by law; employer's liability insurance with employers liability limits of $1,000,000 bodily injury by accident – each accident, $1,000,000 bodily injury by disease – policy limit, and $1,000,000 bodily injury by disease – each employee; and commercial general liability insurance, with a minimum limit of not less than $2,000,000

per occurrence for bodily injury and property damage with respect to the Premises. The commercial general liability insurance maintained by Tenant shall name Alexandria Real Estate Equities, Inc., and Landlord, its officers, directors, employees, managers, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Insured Parties**"), as additional insureds; insure on an occurrence and not a claims-made basis; be issued by insurance companies which have a rating of not less than policyholder rating of A- and financial category rating of at least Class VII in "Best's Insurance Guide"; not contain a hostile fire exclusion; contain a contractual liability endorsement; and provide primary coverage to Landlord Insured Parties (any policy issued to Landlord Insured Parties providing duplicate or similar coverage shall be deemed excess over Tenant's policies, regardless of limits). Tenant shall request Tenant's insurer to endeavor to provide 30 days advance written notice to Landlord of cancellation of such commercial general liability policy (or 10 days in the event of a cancellation due to non-payment of premium). Certificates of insurance showing the limits of coverage required hereunder and showing Landlord as an additional insured, shall be delivered to Landlord by Tenant (i) concurrent with Tenant's delivery to Landlord of a copy of this Lease executed by Tenant , and (ii) concurrent with each renewal of said insurance. Tenant shall, at least 5 days prior to the expiration of such policies, furnish Landlord with renewal certificates.

In each instance where insurance is to name Landlord as an additional insured, Tenant shall upon written request of Landlord also designate and furnish certificates so evidencing Landlord as additional insured to: (i) any lender of Landlord holding a security interest in the Project or any portion thereof, and/or (ii) any management company retained by Landlord to manage the Project.

The property insurance obtained by Landlord and Tenant shall include a waiver of subrogation by the insurers and all rights based upon an assignment from its insured, against Landlord or Tenant, and their respective officers, directors, employees, managers, agents, invitees and contractors ("**Related Parties**"), in connection with any loss or damage thereby insured against. Neither party nor its respective Related Parties shall be liable to the other for loss or damage caused by any risk insured against under property insurance required to be maintained hereunder, and each party waives any claims against the other party, and its respective Related Parties, for such loss or damage. The failure of a party to insure its property shall not void this waiver. Landlord and its respective Related Parties shall not be liable for, and Tenant hereby waives all claims against such parties for, business interruption and losses occasioned thereby sustained by Tenant or any person claiming through Tenant resulting from any accident or occurrence in or upon the Premises or the Project from any cause whatsoever. If the foregoing waivers shall contravene any law with respect to exculpatory agreements, the liability of Landlord or Tenant shall be deemed not released but shall be secondary to the other's insurer.

Landlord may require insurance policy limits to be raised to conform with requirements of Landlord's lender and/or to bring coverage limits to levels then being generally required of new tenants within the Project; provided, however, that the increased amount of coverage is consistent with coverage amounts then being required by institutional owners of similar projects with tenants occupying similar size premises in the geographical area in which the Project is located.

18. **Restoration**. If, at any time during the Term, the Project or the Premises are damaged or destroyed by a fire or other insured casualty, Landlord shall notify Tenant within 45 days after discovery of such damage as to the amount of time Landlord reasonably estimates it will take to restore the Project or the Premises, as applicable (the "**Restoration Period**"). If the Restoration Period is estimated to exceed 9 months (the " **Maximum Restoration Period**"), Landlord may, in such notice, elect to terminate this Lease as of the date that is 60 days after the date of discovery of such damage or destruction; provided, however, that notwithstanding Landlord's election to restore, Tenant may elect to terminate this Lease by written notice to Landlord delivered within 5 business days of receipt of a notice from Landlord estimating a Restoration Period for the Premises longer than the Maximum Restoration Period. Unless either Landlord or Tenant so elects to terminate this Lease, Landlord shall, subject to receipt of sufficient insurance proceeds (with any deductible to be treated as a current Operating Expense), promptly restore the Premises (excluding the improvements installed by Tenant or by Landlord and paid for by Tenant), subject to delays arising from the collection of insurance proceeds, from Force

Majeure events or as needed to obtain any license, clearance or other authorization of any kind required to enter into and restore the Premises issued by any Governmental Authority having jurisdiction over the use, storage, handling, treatment, generation, release, disposal, removal or remediation of Hazardous Materials (as defined in Section 30) in, on or about the Premises (collectively referred to herein as " **Hazardous Materials Clearances**"); provided, however, that if repair or restoration of the Premises is not substantially complete as of the end of the Maximum Restoration Period or, if longer, the Restoration Period, Landlord may, in its sole and absolute discretion, elect not to proceed with such repair and restoration, or Tenant may by written notice to Landlord delivered within 5 business days of the expiration of the Maximum Restoration Period or, if longer, the Restoration Period, elect to terminate this Lease , in which event Landlord shall be relieved of its obligation to make such repairs or restoration and this Lease shall terminate as of the date that is 75 days after the later of: (i) discovery of such damage or destruction, or (ii) the date all required Hazardous Materials Clearances are obtained, but Landlord shall retain any Rent paid and the right to any Rent payable by Tenant prior to such election by Landlord or Tenant.

Tenant, at its expense, shall promptly perform, subject to delays arising from the collection of insurance proceeds, from Force Majeure events or to obtain Hazardous Material Clearances, all repairs or restoration not required to be done by Landlord and shall promptly re-enter the Premises and commence doing business in accordance with this Lease. Notwithstanding the foregoing, either Landlord or Tenant may terminate this Lease upon written notice to the other if the Premises are damaged during the last year of the Term and Landlord reasonably estimates that it will take more than 2 months to repair such damage; provided, however, that such notice is delivered within 10 business days after the date that Landlord provides Tenant with written notice of the estimated Restoration Period. Notwithstanding anything to the contrary contained herein, Landlord shall also have the right to terminate this Lease if insurance proceeds are not available for such restoration. Rent shall be abated from the date all required Hazardous Material Clearances are obtained until the Premises are repaired and restored, in the proportion which the area of the Premises, if any, which is not usable by Tenant bears to the total area of the Premises, unless Landlord provides Tenant with other space during the period of repair that is suitable for the temporary conduct of Tenant's business. In the event that no Hazardous Material Clearances are required to be obtained by Tenant with respect to the Premises, rent abatement shall commence on the date of discovery of the damage or destruction. Such abatement shall be the sole remedy of Tenant, and except as provided in this Section 18, Tenant waives any right to terminate this Lease by reason of damage or casualty loss.

The provisions of this Lease, including this Section 18, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, or any other portion of the Project, and any statute or regulation which is now or may hereafter be in effect shall have no application to this Lease or any damage or destruction to all or any part of the Premises or any other portion of the Project, the parties hereto expressly agreeing that this Section 18 sets forth their entire understanding and agreement with respect to such matters.

19. **Condemnation**. If the whole or any material part of the Premises or the Project is 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 in Landlord's reasonable judgment, either prevent or materially interfere with Tenant's use of the Premises or materially interfere with or impair Landlord's ownership or operation of the Project, then upon written notice by Landlord this Lease shall terminate and Rent shall be apportioned as of said date. If part of the Premises shall be Taken, and this Lease is not terminated as provided above, Landlord shall promptly restore the Premises and the Project as nearly as is commercially reasonable under the circumstances to their condition prior to such partial Taking and the rentable square footage of the Building, the rentable square footage of the Premises, Tenant's Share of Operating Expenses and the Rent payable hereunder during the unexpired Term shall be reduced to such extent as may be fair and reasonable under the circumstances. Upon any such Taking, Landlord shall be entitled to receive the entire price or award from any such Taking without any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award. Tenant shall have the right, to the extent that same shall not diminish

Landlord's award, to make a separate claim against the condemning authority (but not Landlord) for such compensation as may be separately awarded or recoverable by Tenant for moving expenses and damage to Tenant's trade fixtures, if a separate award for such items is made to Tenant. Tenant hereby waives any and all rights it might otherwise have pursuant to any provision of state law to terminate this Lease upon a partial Taking of the Premises or the Project.

20. **Events of Default**. Each of the following events shall be a default ("**Default**") by Tenant under this Lease:

(a) **Payment Defaults** . Tenant shall fail to pay any installment of Rent or any other payment hereunder when due; provided, however, that Landlord will give Tenant notice and an opportunity to cure any failure to pay Rent within 3 business days of any such notice not more than once in any 12 month period and Tenant agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law.

(b) **Insurance**. Any insurance required to be maintained by Tenant pursuant to this Lease shall be canceled or terminated or shall expire or shall be reduced or materially changed, or Landlord shall receive a notice of nonrenewal of any such insurance and Tenant shall fail to obtain replacement insurance at least 5 days before the expiration of the current coverage.

(c) **Intentionally Omitted**.

(d) **Improper Transfer**. Tenant shall assign, sublease or otherwise transfer or attempt to transfer all or any portion of Tenant's interest in this Lease or the Premises except as expressly permitted herein, or Tenant's interest in this Lease shall be attached, executed upon, or otherwise judicially seized and such action is not released within 90 days of the action.

(e) **Liens**. Tenant shall fail to discharge or otherwise obtain the release of any lien placed upon the Premises in violation of this Lease within 10 days after any such lien is filed against the Premises.

(f) **Insolvency Events**. Tenant or any guarantor or surety of Tenant's obligations hereunder shall: (A) make a general assignment for the benefit of creditors; (B) commence any case, proceeding or other action seeking to have an order for relief entered on its behalf as a debtor or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution or composition of it or its debts or seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or of any substantial part of its property (collectively a "**Proceeding for Relief**"); (C) become the subject of any Proceeding for Relief which is not dismissed within 90 days of its filing or entry; or (D) die or suffer a legal disability (if Tenant, guarantor, or surety is an individual) or be dissolved or otherwise fail to maintain its legal existence (if Tenant, guarantor or surety is a corporation, partnership or other entity).

(g) **Estoppel Certificate or Subordination Agreement** . Tenant fails to execute any document required from Tenant under Sections 23 or 27 within 10 days after a second notice requesting such document.

(h) **Other Defaults**. Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 20, and, except as otherwise expressly provided herein, such failure shall continue for a period of 30 days after written notice thereof from Landlord to Tenant.

Any notice given under Section 20(h) hereof shall: (i) specify the alleged default, (ii) demand that Tenant cure such default, (iii) be in lieu of, and not in addition to, or shall be deemed to be, any notice required under any provision of applicable law, and (iv) not be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice; provided that if the nature of Tenant's default

pursuant to Section 20(h) is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Tenant shall not be deemed to be in default if Tenant commences such cure within said 30 day period and thereafter diligently prosecutes the same to completion; provided, however, that such cure shall be completed no later than 90 days from the date of Landlord's notice .

21. **Landlord's Remedies**.

(a) **Payment By Landlord; Interest**. Upon a Default by Tenant hereunder, Landlord may, without waiving or releasing any obligation of Tenant hereunder, make such payment or perform such act. All sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to 10% per annum or the highest rate permitted by law (the "**Default Rate**"), whichever is less, shall be payable to Landlord on demand as Additional Rent. Nothing herein shall be construed to create or impose a duty on Landlord to mitigate any damages resulting from Tenant's Default hereunder.

(b) **Late Payment Rent**. Late payment by Tenant to Landlord of Rent and other sums due will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges which may be imposed on Landlord under any Mortgage covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within 5 days after the date such payment is due, Tenant shall pay to Landlord an additional sum equal to 6% of the overdue Rent as a late charge. Notwithstanding the foregoing, before assessing a late charge the first time in any calendar year, Landlord shall provide Tenant written notice of the delinquency and will waive the right if Tenant pays such delinquency within 5 days thereafter. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest at the Default Rate from the 5th day after the date due until paid.

(c) **Remedies**. Upon the occurrence of a Default, Landlord, at its option, without further notice or demand to Tenant, shall have in addition to all other rights and remedies provided in this Lease, at law or in equity, the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

(i) Terminate this Lease, or at Landlord's option, Tenant's right to possession only, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim for damages therefor;

(ii) Upon any termination of this Lease, whether pursuant to the foregoing Section 21(c)(i) or otherwise, Landlord may recover from Tenant the following:

(A) The worth at the time of award of any unpaid rent which has been earned at the time of such termination; plus

(B) The worth at the time of 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

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

(D) Any other amount necessary to compensate Landlord for all 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, specifically including, but not limited to, brokerage commissions and advertising expenses incurred, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(E) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "**rent**" as used in this Section 21 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 21(c)(ii)(A) and (B), above, the "**worth at the time of award**" shall be computed by allowing interest at the Default Rate. As used in Section 21(c)(ii)(C) above, the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%.

(iii) Landlord may continue this Lease in effect after Tenant's Default and recover rent as it becomes due (Landlord and Tenant hereby agreeing that Tenant has the right to sublet or assign hereunder, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease following a Default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies hereunder, including the right to recover all Rent as it becomes due.

(iv) Whether or not Landlord elects to terminate this Lease following a Default by Tenant, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. Upon Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

(v) Independent of the exercise of any other remedy of Landlord hereunder or under applicable law, Landlord may conduct an environmental test of the Premises as generally described in Section 30(d) hereof, at Tenant's expense.

(d) **Effect of Exercise**. Exercise by Landlord of any remedies hereunder or otherwise available shall not be deemed to be an acceptance of surrender of the Premises and/or a termination of this Lease by Landlord, it being understood that such surrender and/or termination can be effected only by the express written agreement of Landlord and Tenant. Any law, usage, or custom to the contrary notwithstanding, Landlord shall have the right at all times to enforce the provisions of this Lease in strict accordance with the terms hereof; and the failure of Landlord at any time to enforce its rights under this Lease strictly in accordance with same shall not be construed as having created a custom in any way or manner contrary to the specific terms, provisions, and covenants of this Lease or as having modified the same and shall not be deemed a waiver of Landlord's right to enforce one or more of its rights in connection with any subsequent default. A receipt by Landlord of Rent or other payment with knowledge of the breach of any covenant hereof shall not be deemed a waiver of such breach, and no waiver by Landlord of any provision of this Lease shall be deemed to have been made unless expressed in writing and signed by Landlord. To the greatest extent permitted by law, Tenant waives the service of notice of Landlord's intention to re-enter, re-take or otherwise obtain possession of the Premises as provided in any statute, or to institute legal proceedings to that end, and also waives all right of redemption in case Tenant shall be dispossessed by a judgment or by warrant of any court or judge. Any reletting of the

Premises or any portion thereof shall be on such terms and conditions as Landlord in its reasonable discretion may determine, subject to the terms and conditions of final sentence of this paragraph. Landlord shall not be liable for, nor shall Tenant's obligations hereunder be diminished because of, Landlord's failure to relet the Premises or collect rent due in respect of such reletting or otherwise to mitigate any damages arising by reason of Tenant's Default. Landlord shall, however, use commercially reasonable efforts to mitigate the damages arising by reason of the termination of this Lease as a result of a Default by Tenant; provided, however, that in no event shall mitigation require Landlord to consider, among other things, (i) any tenant which does not satisfy Landlord's then current underwriting criteria, in the exercise of Landlord's sole and absolute discretion, for comparable size premises, (ii) subdividing the Premises unless Landlord elects in its sole and absolute discretion to do so, (iii) any change in use of the Premises or any alterations which would lessen the value of the leasehold improvements, (iv) granting any tenant improvement allowances, free rent or other lease concessions, or (v) accepting any tenant if Landlord would have the right to reject such tenant if such tenant were a proposed assignee or sublessee of Tenant including, without limitation, considering the factors described in Section 22(b).

22. **Assignment and Subletting**.

(a) **General Prohibition**. Without Landlord's prior written consent subject to and on the conditions described in this Section 22 (including the terms of Section 22(b) below), Tenant shall not, directly or indirectly, voluntarily or by operation of law, 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, and any attempt to do any of the foregoing shall be void and of no effect.

(b) **Permitted Transfers**. If Tenant desires to assign, sublease, hypothecate or otherwise transfer this Lease or sublet the Premises other than pursuant to a Permitted Assignment (as defined below), then at least 15 business days, but not more than 45 business days, before the date Tenant desires the assignment or sublease to be effective (the "**Assignment Date**"), Tenant shall give Landlord a notice (the " **Assignment Notice** ") containing such information about the proposed assignee or sublessee, including the proposed use of the Premises and any Hazardous Materials proposed to be used, stored handled, treated, generated in or released or disposed of from the Premises, the Assignment Date, any relationship between Tenant and the proposed assignee or sublessee, and all material terms and conditions of the proposed assignment or sublease, including a copy of any proposed assignment or sublease in its final form, and such other information as Landlord may deem reasonably necessary or appropriate to its consideration whether to grant its consent. Landlord may, by giving written notice to Tenant within 15 business days after receipt of the Assignment Notice: (i) grant such consent (provided that Landlord shall further have the right to review and approve or disapprove the proposed form of sublease prior to the effective date of any such subletting), (ii) refuse such consent, in its reasonable discretion; or (iii) terminate this Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an "**Assignment Termination**"). Among other reasons, it shall be reasonable for Landlord to withhold its consent in any of these instances: (1) the proposed assignee or subtenant is a governmental agency; (2) in Landlord's reasonable judgment, the use of the Premises by the proposed assignee or subtenant would entail any alterations that would lessen the value of the leasehold improvements in the Premises, or would require increased services by Landlord; (3) in Landlord's reasonable judgment, the proposed assignee or subtenant is engaged in areas of scientific research or other business concerns that are controversial such that they may (i) attract or cause negative publicity for or about the Building or the Project, (ii) negatively affect the reputation of the Building, the Project or Landlord, (iii) attract protestors to the Building or the Project, or (iv) lessen the attractiveness of the Building or the Project to any tenants or prospective tenants, purchasers or lenders; (4) in Landlord's reasonable judgment, the proposed assignee or subtenant lacks the creditworthiness to support the financial obligations it will incur under the proposed assignment or sublease; (5) in Landlord's reasonable judgment, the character, reputation, or business of the proposed assignee or subtenant is inconsistent with the desired tenant-mix or the quality of other tenancies in the Project; (6) Landlord has experienced previous defaults by or is in litigation with the proposed assignee or subtenant; (7) the use of the Premises by the proposed assignee or subtenant will violate any applicable Legal Requirement; (8) the proposed assignee or subtenant is an entity with whom Landlord is then-actively negotiating to lease

space in the Project; or (9) the assignment or sublease is prohibited by Landlord's lender. If Landlord delivers notice of its election to exercise an Assignment Termination, Tenant shall have the right to withdraw such Assignment Notice by written notice to Landlord of such election within 5 business days after Landlord's notice electing to exercise the Assignment Termination. If Tenant withdraws such Assignment Notice, this Lease shall continue in full force and effect. If Tenant does not withdraw such Assignment Notice, this Lease, and the term and estate herein granted, shall terminate as of the Assignment Date with respect to the space described in such Assignment Notice. No failure of Landlord to exercise any such option to terminate this Lease, or to deliver a timely notice in response to the Assignment Notice, shall be deemed to be Landlord's consent to the proposed assignment, sublease or other transfer. Tenant shall pay to Landlord a fee equal to Two Thousand Five Hundred Dollars ($2,500) in connection with its consideration of any Assignment Notice and/or its preparation or review of any consent documents. Notwithstanding the foregoing, Landlord's consent to an assignment of this Lease or a subletting of any portion of the Premises to any entity controlling, controlled by or under common control with Tenant (a "**Control Permitted Assignment**") shall not be required, provided that within a reasonable period following the effective date of any Control Permitted Assignment, Tenant shall deliver notice to Landlord of such Control Permitted Assignment and, in connection with any sublease constituting a Control Permitted Assignment or in connection with a Control Permitted Assignment resulting in an assignment of this Lease pursuant to which Atara Biotherapeutics, Inc., a Delaware corporation, is not the resulting Tenant, the applicable assignee or sublessee subject to a Control Permitted Assignment shall execute a reasonable form of acknowledgment of assignment or sublease, as applicable. In addition, Tenant shall have the right to assign this Lease, upon 10 days prior written notice to Landlord but without obtaining Landlord's prior written consent, to a corporation or other entity which is a successor-in-interest to Tenant, by way of merger, consolidation or corporate reorganization, or by the purchase of all or substantially all of the assets or the ownership interests of Tenant provided that (i) such merger or consolidation, or such acquisition or assumption, as the case may be, is not principally for the purpose of transferring this Lease, (ii) to the extent that the resulting tenant entity is not Tenant, the net worth (as determined in accordance with generally accepted accounting principles ("**GAAP**")) of the assignee is not less than the net worth (as determined in accordance with GAAP) of Tenant as of the date of Tenant's most current quarterly or annual financial statements, and (iii) to the extent that the resulting tenant entity is not Tenant, such assignee shall agree in writing to assume all of the terms, covenants and conditions of this Lease (a " **Corporate Permitted Assignment**"). Control Permitted Assignments and Corporate Permitted Assignments are hereinafter referred to as "**Permitted Assignments**."

(c) **Additional Conditions**. As a condition to any such assignment or subletting, whether or not Landlord's consent is required, Landlord may require:

(i) that any assignee or subtenant agree, in writing at the time of such assignment or subletting, that if Landlord gives such party notice that Tenant is in default under this Lease, such party shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments will be received by Landlord without any liability except to credit such payment against those due under this Lease, and any such third party shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, in no event shall Landlord or its successors or assigns be obligated to accept such attornment; and

(ii) A list of Hazardous Materials, certified by the proposed assignee or sublessee to be true and correct, which the proposed assignee or sublessee intends to use, store, handle, treat, generate in or release or dispose of from the Premises, together with copies of all documents relating to such use, storage, handling, treatment, generation, release or disposal of Hazardous Materials by the proposed assignee or subtenant in the Premises or on the Project, prior to the proposed assignment or subletting, including, without limitation: permits; approvals; reports and correspondence; storage and management plans; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks

installed in, on or under the Project for the closure of any such tanks. Neither Tenant nor any such proposed assignee or subtenant is required, however, to provide Landlord with any portion(s) of the such documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(d) **No Release of Tenant, Sharing of Excess Rents**. Notwithstanding any assignment or subletting, Tenant and any guarantor or surety of Tenant's obligations under this Lease shall at all times remain fully and primarily responsible and liable for the payment of Rent and for compliance with all of Tenant's other obligations under this Lease. If 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 in any form) exceeds the sum of the Base Rent and Operating Expenses payable under this Lease with respect to the portion of the Premises subject to a sublease or with respect to the entire Premises in the event of an assignment, (excluding however, any Rent payable under this Section) and actual and reasonable brokerage fees, legal costs and any design or construction fees directly related to and required pursuant to the terms of any such sublease ("**Excess Rent**"), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within 30 days following receipt thereof by Tenant. If Tenant shall sublet the Premises or any part thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any such subletting, and Landlord as assignee and as attorney-in-fact for Tenant, or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of a Default, Tenant shall have the right to collect such rent.

(e) **No Waiver**. The consent by Landlord to an assignment or subletting shall not relieve Tenant or any assignees of this Lease or any sublessees of the Premises from obtaining the consent of Landlord to any further assignment or subletting nor shall it release Tenant or any assignee or sublessee of Tenant from full and primary liability under this Lease. The acceptance of Rent hereunder, or the acceptance of performance of any other term, covenant, or condition thereof, from any other person or entity shall not be deemed to be a waiver of any of the provisions of this Lease or a consent to any subletting, assignment or other transfer of the Premises.

(f) **Prior Conduct of Proposed Transferee**. Notwithstanding any other provision of this Section 22, if (i) the proposed assignee or sublessee of Tenant has been required by any prior landlord, lender or Governmental Authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (ii) the proposed assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority), or (iii) because of the existence of a pre-existing environmental condition in the vicinity of or underlying the Project, the risk that Landlord would be targeted as a responsible party in connection with the remediation of such pre-existing environmental condition would be materially increased or exacerbated by the proposed use of Hazardous Materials by such proposed assignee or sublessee, Landlord shall have the absolute right to refuse to consent to any assignment or subletting to any such party.

23. **Estoppel Certificate**. Tenant shall, within 10 business days of written notice from Landlord, execute, acknowledge and deliver a statement in writing in any form reasonably requested by a proposed lender or purchaser, (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease as so modified is in full force and effect) and the dates to which the rental and other charges are paid in advance, if any, (ii) acknowledging that, to Tenant's knowledge, there are not any uncured defaults on the part of Landlord hereunder, or specifying such defaults if any are claimed, and (iii) setting forth such further information with respect to the status of this Lease or the Premises as may be requested thereon. Any such statement may be relied upon by any prospective purchaser or encumbrancer of all or any portion of the real property of which the Premises are a part. Tenant's failure to deliver such statement within 5 days

after Tenant's receipt of a second wri tten notice from Landlord shall be conclusive upon Tenant that this Lease is in full force and effect and without modification except as may be represented by Landlord in any certificate prepared by Landlord and delivered to Tenant for execution.

24. **Quiet Enjoyment**. So long as Tenant is not in Default under this Lease, Tenant shall, subject to the terms of this Lease, at all times during the Term, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under Landlord.

25. **Prorations**. All prorations required or permitted to be made hereunder shall be made on the basis of a 360 day year and 30 day months.

26. **Rules and Regulations**. Tenant shall, at all times during the 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. Such rules and regulations may include, without limitation, rules and regulations relating to the use of any Project amenities and/or rules and regulations which are intended to encourage social distancing, promote and protect health and physical well-being within the Building and the Project and/or intended to limit the spread of Infectious Conditions. The current rules and regulations are attached hereto as **Exhibit E**. If there is any conflict between said rules and regulations and other provisions of this Lease, the terms and provisions of this Lease shall control. Landlord shall not have any liability or obligation for the breach of any rules or regulations by other tenants in the Project and shall not enforce such rules and regulations in a discriminatory manner.

27. **Subordination**. This Lease and Tenant's interest and rights hereunder are hereby made and shall be subject and subordinate at all times to the lien of any Mortgage 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; provided, however that so long as there is no Default hereunder, Tenant's right to possession of the Premises shall not be disturbed by the Holder of any such Mortgage. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees upon demand to execute, acknowledge and deliver such instruments, confirming such subordination, and such instruments of attornment as shall be requested by any such Holder, provided any such instruments contain appropriate non-disturbance provisions assuring Tenant's quiet enjoyment of the Premises as set forth in Section 24 hereof. 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.

28. **Surrender**. Upon the expiration of the Term or earlier termination of Tenant's right of possession, Tenant shall surrender the Premises to Landlord in the same condition as received (subject to ordinary wear and tear), subject to any Alterations or Installations permitted by Landlord pursuant to the terms of this Lease to remain in the Premises, free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises by any person other than Landlord or any Landlord's employees, agents and contractors (collectively, "**Tenant HazMat Operations**") and released of all Hazardous Materials Clearances, broom clean, ordinary wear and tear and casualty loss and condemnation covered by Sections 18 and 19 excepted. At least 3 months prior to the surrender of the Premises or such earlier date as Tenant may elect to cease operations at the Premises, Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Governmental Authority) to be taken by Tenant in order to surrender the Premises (including any Installations permitted by Landlord to remain in the Premises) at the expiration or earlier termination of the Term, free from any residual impact from the Tenant HazMat Operations and otherwise released for

unrestricted use and occupancy (the "**Decommissioning and HazMat Closure Plan**"). Such Decommissioning and HazMat Closure Plan shall be accompanied by a current listing of (i) all Hazardous Materials licenses and permits held by or on behalf of any Tenant Party with respect to the Premises, and (ii) all Hazardous Materials used, stored, handled, treated, generated, released or disposed of from the Premises, and shall be subject to the review and approval of Landlord's environmental consultant. In connection with the review and approval of the Decommissioning and HazMat Closure Plan, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning Tenant HazMat Operations as Landlord shall request. On or before such surrender, Tenant shall deliver to Landlord evidence that the approved Decommissioning and HazMat Closure Plan shall have been satisfactorily completed and Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the effective date of such surrender or early termination of this Lease, free from any residual impact from Tenant HazMat Operations. Tenant shall reimburse Landlord, as Additional Rent, for the reasonable out-of-pocket expense incurred by Landlord for Landlord's environmental consultant to review and approve the Decommissioning and HazMat Closure Plan and to visit the Premises and verify satisfactory completion of the same, which cost shall not exceed $2,500. Landlord shall have the unrestricted right to deliver such Decommissioning and HazMat Closure Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties.

If Tenant shall fail to prepare or submit a Decommissioning and HazMat Closure Plan approved by Landlord, or if Tenant shall fail to complete the approved Decommissioning and HazMat Closure Plan, or if such Decommissioning and HazMat Closure Plan, whether or not approved by Landlord, shall fail to adequately address any residual effect of Tenant HazMat Operations in, on or about the Premises, Landlord shall, after first providing notice to Tenant, have the right to take such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Project are surrendered free from any residual impact from Tenant HazMat Operations, the cost of which actions shall be reimbursed by Tenant as Additional Rent, without regard to the limitation set forth in the first paragraph of this Section 28.

Tenant shall immediately return to Landlord all keys and/or access cards to parking, the Project, restrooms or all or any portion of the Premises furnished to or otherwise procured by Tenant. If any such access card or key is lost, Tenant shall pay to Landlord, at Landlord's election, either the cost of replacing such lost access card or key or the cost of reprogramming the access security system in which such access card was used or changing the lock or locks opened by such lost key. Any Tenant's Property, Alterations and property not so removed by Tenant as permitted or required herein shall be deemed abandoned and may be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages resulting from Landlord's retention and/or disposition of such property. All obligations of Tenant hereunder not fully performed as of the termination of the Term, including the obligations of Tenant under Section 30 hereof, shall survive the expiration or earlier termination of the Term, including, without limitation, indemnity obligations, payment obligations with respect to Rent and obligations concerning the condition and repair of the Premises.

29. **Waiver of Jury Trial**. TO THE EXTENT PERMITTED BY LAW, TENANT AND LANDLORD WAIVE ANY RIGHT TO TRIAL BY JURY OR TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, BETWEEN LANDLORD AND TENANT ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH OR THE TRANSACTIONS RELATED HERETO.

30. **Environmental Requirements**.

(a) **Prohibition/Compliance/Indemnity**. Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises or the Project in violation of applicable Environmental Requirements (as hereinafter defined) by Tenant or any Tenant Party. If Tenant breaches the obligation stated in the preceding sentence, or if the presence of Hazardous Materials in the Premises during the Term or any holding over results in contamination of the Premises, the Project or any adjacent property or if contamination of the Premises, the Project or any adjacent property by Hazardous Materials brought into, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises by anyone other than Landlord and Landlord's employees, agents and contractors otherwise occurs during the Term or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord, its officers, directors, employees, agents and contractors harmless from any and all actions (including, without limitation, remedial or enforcement actions of any kind, administrative or judicial proceedings, and orders or judgments arising out of or resulting therefrom), costs, claims, damages (including, without limitation, punitive damages and damages based upon diminution in value of the Premises or the Project, or the loss of, or restriction on, use of the Premises or any portion of the Project), expenses (including, without limitation, attorneys', consultants' and experts' fees, court costs and amounts paid in settlement of any claims or actions), fines, forfeitures or other civil, administrative or criminal penalties, injunctive or other relief (whether or not based upon personal injury, property damage, or contamination of, or adverse effects upon, the environment, water tables or natural resources), liabilities or losses which arise during or after the Term as a result of such contamination. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, treatment, remedial, removal, or restoration work required by any federal, state or local Governmental Authority because of Hazardous Materials present in the air, soil or ground water above, on, or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials on the Premises, the Building, the Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, the Building, the Project or any adjacent property, Tenant shall promptly take all actions at its sole expense and in accordance with applicable Environmental Requirements as are necessary to return the Premises, the Building, the Project or any adjacent property to the condition existing prior to the time of such contamination, provided that Landlord's approval of such action shall first be obtained, which approval shall not unreasonably be withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Premises the Building or the Project. Notwithstanding anything to the contrary contained in Section 28 or this Section 30, Tenant shall not be responsible for, and the indemnification and hold harmless obligation set forth in this paragraph shall not apply to (i) contamination in the Premises which Tenant can reasonably demonstrate existed in the Premises immediately prior to the Commencement Date, (ii) the presence of any Hazardous Materials in the Premises which Tenant can reasonably demonstrate migrated from outside of the Premises into the Premises, (iii) caused by Landlord or any Landlord's employees, agents and contractors, (iv) any contamination reflected in the Environmental Reports (as defined below), or (v) any Hazardous Materials that Tenant can reasonably demonstrate were not brought upon, kept, used, stored, handled, treated, generated in or released or disposed of from the Premises or the Project by Tenant or any Tenant Party; unless in any case, the presence of such Hazardous Materials (x) is the result of a breach by Tenant of any of its obligations under this Lease, or (y) was caused, contributed to or exacerbated by Tenant or any Tenant Party.

(b) **Business**. Landlord acknowledges that it is not the intent of this Section 30 to prohibit Tenant from using the Premises for the Permitted Use. Tenant may operate its business according to prudent industry practices so long as the use or presence of Hazardous Materials is strictly and properly monitored according to all then applicable Environmental Requirements. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Commencement Date a list identifying each type of Hazardous Materials to be brought upon, kept, used, stored, handled, treated, generated on, or released or disposed of from, the Premises and setting forth any and all governmental approvals or permits required in connection with the

presence, use, storage, handling, treatment, generation, release or disposal of such Hazardous Materials on or from the Premises ("**Hazardous Materials List**"). Upon Landlord's request, or any time that Tenant is required to deliver a Hazardous Materials List to any Governmental Authority (e.g., the fire department) in connection with Tenant's use or occupancy of the Premises, Tenant shall deliver to Landlord a copy of such Hazardous Materials List. Tenant shall deliver to Landlord true and correct copies of the following documents (the "**Haz Mat Documents**") relating to the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials prior to the Commencement Date, or if unavailable at that time, concurrent with the receipt from or submission to a Governmental Authority: permits; approvals; reports and correspondence; storage and management plans, notice of violations of any Legal Requirements; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given Tenant its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks; and a Decommissioning and HazMat Closure Plan (to the extent surrender in accordance with Section 28 cannot be accomplished in 3 months). Tenant is not required, however, to provide Landlord with any portion(s) of the Haz Mat Documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities. It is not the intent of this Section to provide Landlord with information which could be detrimental to Tenant's business should such information become possessed by Tenant's competitors.

(c) **Tenant Representation and Warranty**. Tenant hereby represents and warrants to Landlord that (i) neither Tenant nor any of its legal predecessors has been required by any prior landlord, lender or Governmental Authority at any time to take remedial action in connection with Hazardous Materials contaminating a property which contamination was permitted by Tenant of such predecessor or resulted from Tenant's or such predecessor's action or use of the property in question, and (ii) Tenant is not subject to any enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority). If Landlord determines that this representation and warranty was not true as of the date of this lease, Landlord shall have the right to terminate this Lease in Landlord's sole and absolute discretion.

(d) **Testing**. Landlord shall have the right to conduct annual tests of the Premises to determine whether any contamination of the Premises or the Project has occurred as a result of Tenant's use. Tenant shall be required to pay the cost of such annual test of the Premises if there is violation of this Section 30 or if contamination for which Tenant is responsible under this Section 30 is identified; provided, however, that if Tenant conducts its own tests of the Premises using third party contractors and test procedures acceptable to Landlord which tests are certified to Landlord, Landlord shall accept such tests in lieu of the annual tests to be paid for by Tenant. In addition, at any time, and from time to time, prior to the expiration or earlier termination of the Term, Landlord shall have the right to conduct appropriate tests of the Premises and the Project to determine if contamination has occurred as a result of Tenant's use of the Premises. In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises by Tenant or any Tenant Party. If contamination has occurred for which Tenant is liable under this Section 30, Tenant shall pay all costs to conduct such tests. If no such contamination is found, Landlord shall pay the costs of such tests (which shall not constitute an Operating Expense). Landlord shall provide Tenant with a copy of all third party, non-confidential reports and tests of the Premises made by or on behalf of Landlord during the Term without representation or warranty and subject to a confidentiality agreement. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions identified by such testing in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights which Landlord may have against Tenant.

(e) **Control Areas**. Tenant shall be allowed to utilize up to its pro rata share of the Hazardous Materials inventory within any control area or zone (located within the Premises), as designated by the applicable building code, for chemical use or storage. As used in the preceding sentence, Tenant's pro rata share of any control areas or zones located within the Premises shall be determined based on the rentable square footage that Tenant leases within the applicable control area or zone. For purposes of example only, if a control area or zone contains 10,000 rentable square feet and 2,000 rentable square feet of a tenant's premises are located within such control area or zone (while such premises as a whole contains 5,000 rentable square feet), the applicable tenant's pro rata share of such control area would be 20%.

(f) **Storage Tanks**. If storage tanks storing Hazardous Materials located on the Premises or the Project are used by Tenant or are hereafter placed on the Premises or the Project by Tenant, Tenant shall install, use, monitor, operate, maintain, upgrade and manage such storage tanks, maintain appropriate records, obtain and maintain appropriate insurance, implement reporting procedures, properly close any storage tanks, and take or cause to be taken all other actions necessary or required under applicable state and federal Legal Requirements, as such now exists or may hereafter be adopted or amended in connection with the installation, use, maintenance, management, operation, upgrading and closure of such storage tanks. Notwithstanding anything to the contrary contained herein, Tenant shall have no right to use or install any underground storage tanks at the Project.

(g) **Tenant's Obligations**. Tenant's obligations under this Section 30 shall survive the expiration or earlier termination of the Lease. During any period of time after the expiration or earlier termination of this Lease required by Tenant or Landlord to complete the removal from the Premises of any Hazardous Materials (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Decommissioning and HazMat Closure Plan), Tenant shall continue to pay the full Rent in accordance with this Lease for any portion of the Premises not relet by Landlord in Landlord's sole discretion, which Rent shall be prorated daily.

(h) **Definitions**. As used herein, the term "**Environmental Requirements**" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, orders or other similar enactments of any Governmental Authority regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the Project, or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; and all state and local counterparts thereto, and any regulations or policies promulgated or issued thereunder. As used herein, the term "**Hazardous Materials**" means and includes any substance, material, waste, pollutant, or contaminant listed or defined as hazardous or toxic, or regulated by reason of its impact or potential impact on humans, animals and/or the environment under any Environmental Requirements, asbestos and petroleum, including crude oil or any fraction thereof, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). As defined in Environmental Requirements, Tenant is and shall be deemed to be the "**operator**" of Tenant's "**facility**" and the "**owner**" of all Hazardous Materials brought on the Premises by Tenant or any Tenant Party, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

(i) **Landlord's Tests**. Landlord shall have access to, and a right to perform inspections and tests of, the Premises to determine Tenant's compliance with Environmental Requirements, its obligations under this Section 30, or the environmental condition of the Premises or the Project. In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises by Tenant or any Tenant Party. Access shall be granted to Landlord upon Landlord's prior notice to Tenant and at such times so as to minimize, so far as may be reasonable under the circumstances, any disturbance to Tenant's operations. Such inspections and tests shall be conducted at Landlord's expense, unless such inspections or tests reveal that Tenant has not complied with any Environmental Requirement, in which case Tenant shall reimburse Landlord for the reasonable cost of such inspection and tests. Tenant shall,

at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions identified by such testing in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights that Landlord may have against Tenant.

(j) **Tenant's Obligations**. Tenant's obligations under this Section 30 shall survive the expiration or earlier termination of this Lease. During any period of time after the expiration or earlier termination of this Lease required by Tenant or Landlord to complete the removal from the Premises of any Hazardous Materials (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Decommissioning and HazMat Closure Plan), Tenant shall continue to pay the full Rent in accordance with this Lease for any portion of the Premises not relet by Landlord in Landlord's sole discretion, which Rent shall be prorated daily.

(k) **Environmental Reports**. Tenant acknowledges having received from Landlord the environmental documents listed on **Exhibit H** attached hereto (the "**Environmental Reports**").

31. **Tenant's Remedies/Limitation of Liability**. Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within 30 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 30 days, then after such period of time as is reasonably necessary). Upon any default by Landlord, Tenant shall give notice by registered or certified mail to any Holder of a Mortgage covering the Premises and to any landlord of any lease of property in or on which the Premises are located and Tenant shall offer such Holder and/or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Project by power of sale or a judicial action if such should prove necessary to effect a cure; provided Landlord shall have furnished to Tenant in writing the names and addresses of all such persons who are to receive such notices. All obligations of Landlord hereunder shall be construed as covenants, not conditions; and, except as may be otherwise expressly provided in this Lease, Tenant may not terminate this Lease for breach of Landlord's obligations hereunder.

Notwithstanding the foregoing, if any claimed Landlord default hereunder will immediately, materially and adversely affect Tenant's ability to conduct its business in the Premises (a "**Material Landlord Default**"), Tenant shall, as soon as reasonably possible, but in any event within 5 business days of obtaining knowledge of such claimed Material Landlord Default, give Landlord written notice of such claim which notice shall specifically state that a Material Landlord Default exists and telephonic notice to Tenant's principal contact with Landlord. Landlord shall then have 5 business days to commence cure of such claimed Material Landlord Default and shall diligently prosecute such cure to completion. If such claimed Material Landlord Default is not a default by Landlord hereunder, or if Tenant failed to give Landlord the notice required hereunder within 5 business days of learning of the conditions giving rise to the claimed Material Landlord Default, Landlord shall be entitled to recover from Tenant, as Additional Rent, any costs incurred by Landlord in connection with such cure in excess of the costs, if any, that Landlord would otherwise have been liable to pay hereunder. If Landlord fails to commence cure of any claimed Material Landlord Default as provided above, Tenant may commence and prosecute such cure to completion provided that it does not affect any Building Systems affecting other tenants, the Building structure or Common Areas, and shall be entitled to recover the costs of such cure that would have not otherwise been payable under this Lease as part of Operating Expenses (but not any consequential or other damages) from Landlord by way of reimbursement from Landlord with no right to offset against Rent, to the extent of Landlord' s obligation to cure such claimed Material Landlord Default hereunder, subject to the limitations set forth in this Lease. Landlord shall have the right not to reimburse Tenant as provided for in the preceding sentence and instead dispute Tenant's entitlement to reimbursement, Tenant's right to perform such repairs and/or maintenance and/or the amount being requested by Tenant. If Landlord elects, in the exercise of its good faith reasonable discretion, to dispute any of the foregoing matters, Landlord shall notify Tenant in writing of the nature of such dispute within 30 days after receipt of Tenant's written request for reimbursement. Landlord and Tenant shall meet and discuss the dispute and if Landlord and Tenant fail to reach a resolution of the dispute within 15 days after their meeting, the dispute shall be resolved by arbitration by a single arbitrator with the qualifications

and experience appropriate to resolve the matter and appointed pursuant to and acting in accordance with the rules of the American Arbitration Association. If the arbitrator decides in favor of Tenant, then Landlord shall promptly pay the amount of any award to Tenant. If either party is determined by the arbitrator to be the prevailing party, then such party shall be entitled to have its reasonable attorneys' fees and costs in connection with such arbitration paid by the other party. If Landlord has not paid to Tenant in full the amount of any such award plus any attorneys' fees and costs awarded by the arbitrator within 30 days of the date of the arbitrator's decision, and so long as Tenant is not in Default under this Lease, then Tenant shall have the right to set off against the next monthly payments of Base Rent the amount of the award.

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. Upon 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 Term upon each new owner for the duration of such owner's ownership.

32. **Inspection and Access**. Landlord and its agents, representatives, and contractors may enter the Premises during business hours on not less than 48 hours advance written notice (except in the case of emergencies in which case no such notice shall be required and such entry may be at any time) for the purpose of effecting any such repairs, inspecting the Premises, showing the Premises to prospective purchasers and, during the last 9 months of the Term, to prospective tenants or for any other business purpose. Landlord may erect a suitable sign at the Project (during the last 12 months of the Term) stating the Premises are available to let or that the Project is available for sale. Landlord may grant easements, make public dedications, designate Common Areas and create restrictions on or about the Premises, provided that no such easement, dedication, designation or restriction materially, adversely affects Tenant's use or occupancy of the Premises for the Permitted Use. At Landlord's request, Tenant shall execute such instruments as may be necessary for such easements, dedications or restrictions. Tenant shall at all times, except in the case of emergencies, have the right to escort Landlord or its agents, representatives, contractors or guests while the same are in the Premises, provided such escort does not materially and adversely affect Landlord's access rights hereunder.

33. **Security**. Tenant acknowledges and agrees that security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises. Tenant agrees 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. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises and/or the Project. Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

34. **Force Majeure**. Except for the payment of Rent, neither Landlord nor Tenant shall be held responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, sinkholes or subsidence, strikes, lockouts, or other labor disputes, embargoes, quarantines, weather, national, regional, or local disasters, calamities, or catastrophes, inability to obtain labor or materials (or reasonable substitutes therefor) at reasonable costs or failure of, or inability to obtain, utilities necessary for performance, governmental restrictions, orders, limitations, regulations, or controls, national emergencies, local, regional or national epidemic or pandemic, delay in issuance or revocation of permits, enemy or hostile governmental action, terrorism, insurrection, riots, civil disturbance or commotion, fire or other casualty, and other causes or events beyond their control ("**Force Majeure**").

35. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with this transaction and that no Broker brought about this transaction , other than Cushman & Wakefield . Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than Cushman & Wakefield , claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

36. **Limitation on Landlord's Liability**. NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT TO THE CONTRARY: (A) LANDLORD SHALL NOT BE LIABLE TO TENANT OR ANY OTHER PERSON FOR (AND TENANT AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO: TENANT'S PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION KEPT AT THE PREMISES AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; (B) THERE SHALL BE NO PERSONAL RECOURSE TO LANDLORD FOR ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES OR ARISING IN ANY WAY UNDER THIS LEASE OR ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LANDLORD HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LANDLORD'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LANDLORD'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (C) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LANDLORD IN CONNECTION WITH THIS LEASE NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS. UNDER NO CIRCUMSTANCES SHALL LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE FOR INJURY TO TENANT'S BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM.

Tenant acknowledges and agrees that measures and/or services implemented at the Project, if any, intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of Infectious Conditions, may not prevent the spread of such Infectious Conditions. Neither Landlord nor any Landlord Indemnified Parties shall have any liability and Tenant waives any claims against Landlord and the Landlord Indemnified Parties with respect to any loss, damage or injury in connection with (x) the implementation, or failure of Landlord or any Landlord Indemnified Parties to implement, any measures and/or services at the Project intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of Infectious Conditions, or (y) the failure of any measures and/or services implemented at the Project, if any, to limit the spread of any Infections Conditions.

37. **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 effect to such illegal, invalid or unenforceable clause or provision as shall be legal, valid and enforceable.

38. **Signs; Exterior Appearance**. Tenant shall not, without the prior written consent of Landlord, which may be granted or withheld in Landlord's sole discretion: (i) attach any awnings, exterior lights, decorations, balloons, flags, pennants, banners, painting or other projection to any outside wall of the Project, (ii) use any curtains, blinds, shades or screens other than Landlord's standard window coverings, (iii) coat or otherwise sunscreen the interior or exterior of any windows, (iv) place any bottles, parcels, or other articles on the window sills, (v) place any equipment, furniture or other items of personal

property on any exterior balcony, or (vi) paint, affix or exhibit on any part of the Premises or the Project any signs, notices, window or door lettering, placards, decorations, or advertising media of any type which can be viewed from the exterior of the Premises. Interior signs on doors and the directory tablet shall be inscribed, painted or affixed for Tenant by Landlord at the sole cost and expense of Tenant, and shall be of a size, color and type acceptable to Landlord. Nothing may be placed on the exterior of corridor walls or corridor doors other than Landlord's standard lettering. The directory tablet shall be provided exclusively for the display of the name and location of tenants.

39. **Right to Extend Term**. Tenant shall have the right to extend the Term of this Lease upon the following terms and conditions:

(a) **Extension Rights**. Tenant shall have 2 consecutive rights (each, an " **Extension Right**") to extend the term of this Lease for 60 months each (each, an "**Extension Term**") on the same terms and conditions as this Lease (other than with respect to Base Rent and the Work Letter) by giving Landlord written notice of its election to exercise each Extension Right (an "**Exercise Notice**") at least 9 months prior (" **Exercise Date**"), and no earlier than 15 months prior to the expiration of the Base Term of this Lease or the expiration of the prior Extension Term.

Upon the commencement of any Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by a percentage as determined by Landlord and agreed to by Tenant at the time the Market Rate is determined. As used herein, "**Market Rate**" shall mean the rate that comparable landlords of comparable buildings have accepted in current transactions from non-equity (i.e., not being offered equity in the buildings) and nonaffiliated tenants of similar financial strength for space of comparable size, quality (including all Tenant Improvements, Alterations and other improvements) and floor height in Class A laboratory/office buildings in Thousand Oaks for a comparable term, with the determination of the Market Rate to take into account all relevant factors, including tenant inducements, views, leasing commissions, allowances or concessions, if any.

Tenant shall exercise the Extension Right, if at all, as follows: (i) Tenant shall deliver written notice to Landlord (the " **Interest Notice**") not more than 17 months nor less than 11 months prior to the expiration of the Base Term of the Lease or the expiration of the prior Extension Term, as applicable, stating that Tenant may be interested in exercising its Extension Right; (ii) Landlord shall deliver written notice (the "**Option Rent Notice**") to Tenant within 30 days after Landlord's receipt of the Interest Notice setting forth Landlord's good faith determination of the Market Rate; and (iii) if Tenant wishes to exercise its Extension Right, Tenant shall, on or before the Exercise Date, exercise the Extension Right by delivering an Exercise Notice to Landlord. Concurrently with Tenant's delivery of the Exercise Notice to Landlord, Tenant may object, in writing (the "**Objection Notice**"), to Landlord's determination of the Market Rate set forth in the Option Rent Notice, in which event such Market Rate shall be determined by arbitration pursuant to Section 39(b) below. If Tenant does not deliver an Objection Notice pursuant to the immediately preceding sentence, Tenant shall be deemed to have accepted the Market Rate set forth in the Option Rent Notice. Tenant acknowledges and agrees that, if Tenant has delivered an Exercise Notice to Landlord pursuant to this Section 39(a), Tenant shall have no right thereafter to rescind such Exercise Notice or elect not to extend the term of this Lease for the Extension Term.

(b) **Arbitration**.

(i) Within 10 days of Tenant's notice to Landlord of its election (or deemed election) to arbitrate Market Rate and escalations, each party shall deliver to the other a proposal containing the Market Rate and escalations that the submitting party believes to be correct ("**Extension Proposal**"). If either party fails to timely submit an Extension Proposal, the other party's submitted proposal shall determine the Base Rent and escalations for the Extension Term. If both parties submit Extension Proposals, then Landlord and Tenant shall meet within 7 days after delivery of the last Extension Proposal and make a good faith attempt to mutually

appoint a single Arbitrator (and defined below) to determine the Market Rate and escalations. If Landlord and Tenant are unable to agree upon a single Arbitrator, then each shall, by written notice delivered to the other within 10 days after the meeting, select an Arbitrator. If either party fails to timely give notice of its selection for an Arbitrator, the other party's submitted proposal shall determine the Base Rent for the Extension Term. The 2 Arbitrators so appointed shall, within 5 business days after their appointment, appoint a third Arbitrator. If the 2 Arbitrators so selected cannot agree on the selection of the third Arbitrator within the time above specified, then either party, on behalf of both parties, may request such appointment of such third Arbitrator by application to any state court of general jurisdiction in the jurisdiction in which the Premises are located, upon 10 days prior written notice to the other party of such intent.

(ii) The decision of the Arbitrator(s) shall be made within 30 days after the appointment of a single Arbitrator or the third Arbitrator, as applicable. The decision of the single Arbitrator shall be final and binding upon the parties. The average of the two closest Arbitrators in a three Arbitrator panel shall be final and binding upon the parties. Each party shall pay the fees and expenses of the Arbitrator appointed by or on behalf of such party and the fees and expenses of the third Arbitrator shall be borne equally by both parties. If the Market Rate and escalations are not determined by the first day of the Extension Term, then Tenant shall pay Landlord Base Rent in an amount equal to the Base Rent in effect immediately prior to the Extension Term and increased by the Rent Adjustment Percentage until such determination is made. After the determination of the Market Rate and escalations, the parties shall make any necessary adjustments to such payments made by Tenant. Landlord and Tenant shall then execute an amendment recognizing the Market Rate and escalations for the Extension Term.

(iii) An "**Arbitrator**" shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and high tech industrial real estate in the greater Los Angeles metropolitan area, or (B) a licensed commercial real estate broker with not less than 15 years' experience representing landlords and/or tenants in the leasing of high tech or life sciences space in the greater Los Angeles metropolitan area, (ii) devoting substantially all of their time to professional appraisal or brokerage work, as applicable, at the time of appointment and (iii) be in all respects impartial and disinterested.

(c) **Rights Personal**. Extension Rights are personal to Tenant and are not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in this Lease, except that they may be assigned in connection with any assignment of this Lease constituting a Permitted Assignment.

(d) **Exceptions**. Notwithstanding anything set forth above to the contrary, Extension Rights shall, at Landlord's option, not be in effect and Tenant may not exercise any of the Extension Rights:

(i) during any period of time that Tenant is in Default under any provision of this Lease; or

(ii) if Tenant has been in Default under any provision of this Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period immediately prior to the date that Tenant intends to exercise an Extension Right, whether or not the Defaults are cured.

(e) **No Extensions**. The period of time within which any Extension Rights may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Extension Rights.

(f) **Termination**. The Extension Rights shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of an Extension Right, if, after such

exercise, but prior to the commencement date of an Extension Term, (i) Tenant fails to timely cure any default by Tenant under this Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of an Extension Right to the date of the commencement of the Extension Term, whether or not such Defaults are cured.

40. **Asbestos**.

(a) **Notification of Asbestos**. Landlord hereby notifies Tenant of the presence of asbestos-containing materials (" **ACMs**") and/or presumed asbestos-containing materials ("**PACMs**") within or about the Premises in the location identified in **Exhibit G**.

(b) **Tenant Acknowledgement**. Tenant hereby acknowledges receipt of the notification in paragraph (a) of this Section 40 and understands that the purpose of such notification is to make Tenant and any agents, employees, and contractors of Tenant, aware of the presence of ACMs and/or PACMs within or about the Building in order to avoid or minimize any damage to or disturbance of such ACMs and/or PACMs.

/s/ PT
Tenant's Initials

(c) **Acknowledgement from Contractors/Employees**. Tenant shall give Landlord at least 14 days' prior written notice before conducting, authorizing or permitting any of the activities listed below within or about the Premises, and before soliciting bids from any person to perform such services. Such notice shall identify or describe the proposed scope, location, date and time of such activities and the name, address and telephone number of each person who may be conducting such activities. Thereafter, Tenant shall grant Landlord reasonable access to the Premises to determine whether any ACMs or PACMs will be disturbed in connection with such activities. Tenant shall not solicit bids from any person for the performance of such activities without Landlord's prior written approval. Upon Landlord's request, Tenant shall deliver to Landlord a copy of a signed acknowledgement from any contractor, agent, or employee of Tenant acknowledging receipt of information describing the presence of ACMs and/or PACMs within or about the Premises in the locations identified in **Exhibit G** prior to the commencement of such activities. Nothing in this Section 40 shall be deemed to expand Tenant's rights under this Lease or otherwise to conduct, authorize or permit any such activities.

(i) Removal of thermal system insulation ("**TSI**") and surfacing ACMs and PACMs (i.e., sprayed-on or troweled-on material, e.g., textured ceiling paint or fireproofing material);

(ii) Removal of ACMs or PACMs that are not TSI or surfacing ACMs or PACMs; or

(iii) Repair and maintenance of operations that are likely to disturb ACMs or PACMs.

41. **Miscellaneous**.

(a) **Notices**. All notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, or upon actual receipt if delivered by reputable overnight guaranty courier, addressed and sent to the parties at their addresses set forth above. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

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

(c) **Financial Information**. Tenant shall furnish to Landlord with true and complete copies of (i) upon Landlord's written request on an annual basis, Tenant's most recent audited annual financial statements, provided, however, that Tenant shall not be required to deliver to Landlord such annual financial statements for any particular year sooner than the date that is 90 days after the end of each of Tenant's fiscal years during the Term , (ii) upon Landlord's written request from time to time (but not more than once per calendar year) , corporate brochures and/or profiles prepared by Tenant f or prospective investors, and (iii) upon Landlord's written request from time to time (but not more than once per calendar year) , any other financial information or summaries that Tenant typically provides to its lenders or shareholders. Notwithstanding anything to the contrary contained in this Lease, Landlord's written request for financial information pursuant to this Section 41(c) may delivered to Tenant via email. So long as Tenant is a "public company" and its financial information is publicly available, then the foregoing delivery requirements of this Section 41(c) shall not apply.

(d) **Recordation**. Neither this Lease nor a memorandum of lease shall be filed by or on behalf of Tenant in any public record. Landlord may prepare and file, and upon request by Landlord Tenant will execute, a memorandum of lease.

(e) **Interpretation**. 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. 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.

(f) **Not Binding Until Executed**. 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.

(g) **Limitations on Interest**. 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.

(h) **Choice of Law**. Construction and interpretation of this Lease shall be governed by the internal laws of the state in which the Premises are located, excluding any principles of conflicts of laws.

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

(j) **OFAC**. Tenant and all beneficial owners of Tenant are currently (a) in compliance with and shall at all times during the Term of this Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List, or the Sectoral Sanctions Identification List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

(k) **Incorporation by Reference**. All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof. If there is any conflict between such exhibits or addenda and the terms of this Lease, such exhibits or addenda shall control.

(l) **Entire Agreement**. This Lease, including the exhibits attached hereto, constitutes the entire agreement between Landlord and Tenant pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, letters of intent, negotiations and discussions, whether oral or written, of the parties, and there are no warranties, representations or other agreements, express or implied, made to either party by the other party in connection with the subject matter hereof except as specifically set forth herein.

(m) **No Accord and Satisfaction**. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installment of Base Rent or any Additional Rent will be other than on account of the earliest stipulated Base Rent and Additional Rent, nor will any endorsement or statement on any check or letter accompanying a check for payment of any Base Rent or Additional Rent be an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in this Lease.

(n) **Hazardous Activities**. Notwithstanding any other provision of this Lease, Landlord, for itself and its employees, agents and contractors, reserves the right to refuse to perform any repairs or services in any portion of the Premises which, pursuant to Tenant's routine safety guidelines, practices or custom or prudent industry practices, require any form of protective clothing or equipment other than safety glasses. In any such case, Tenant shall contract with parties who are acceptable to Landlord, in Landlord's reasonable discretion, for all such repairs and services, and Landlord shall, to the extent required, equitably adjust Tenant's Share of Operating Expenses in respect of such repairs or services to reflect that Landlord is not providing such repairs or services to Tenant.

(o) **EV Charging Stations**. Landlord shall not unreasonably withhold its consent to Tenant's written request to install 1 or more electric vehicle car charging stations ("**EV Stations**") in the parking area serving the Project; provided, however, that Tenant complies with all reasonable requirements, standards, rules and regulations which may be imposed by Landlord, at the time Landlord's consent is granted, in connection with Tenant's installation, maintenance, repair and operation of such EV Stations, which may include, without limitation, the charge to Tenant of a reasonable monthly rental amount for the parking spaces used by Tenant for such EV Stations, Landlord's designation of the location of Tenant's EV Stations, and Tenant's payment of all costs whether incurred by Landlord or Tenant in connection with the installation, maintenance, repair and operation of each Tenant's EV Station(s). Nothing contained in this paragraph is intended to increase the number of parking spaces which Tenant is otherwise entitled to use at the Project under Section 10 of this Lease nor impose any additional obligations on Landlord with respect to Tenant's parking rights at the Project.

(p) **California Accessibility Disclosure**. For purposes of Section 1938(a) of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project has not undergone inspection by a Certified Access Specialist (CASp). In addition, the following notice is hereby provided pursuant to Section 1938(e) of the California Civil Code: "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 and in connection with such notice: (i) Tenant, having read such notice and understanding Tenant's right to request and obtain a CASp inspection, hereby elects not to obtain such CASp inspection and forever waives its rights to obtain a CASp inspection with respect to the Premises, Building and/or Project to the extent permitted by Legal

Requirements; and (ii) if the waiver set forth in clause (i) hereinabove is not enforceable pursuant to Legal Requirements, then Landlord and Tenant hereby agree as follows (which constitutes the mutual agreement of the parties as to the matters described in the last sentence of the foregoing notice): (A) Tenant shall have the one-time right to request for and obtain a CASp inspection, which request must be made, if at all, in a written notice delivered by Tenant to Landlord; (B) any CASp inspection timely requested by Tenant shall be conducted (1) at a time mutually agreed to by Landlord and Tenant, (2) in a professional manner by a CASp designated by Landlord and without any testing that would damage the Premises, Building or Project in any way, and (3) at Tenant's sole cost and expense, including, without limitation, Tenant's payment of the fee for such CASp inspection, the fee for any reports prepared by the CASp in connection with such CASp inspection (collectively, the "**CASp Reports**") and all other costs and expenses in connection therewith; (C) the CASp Reports shall be delivered by the CASp simultaneously to Landlord and Tenant; (D) Tenant, at its sole cost and expense, shall be responsible for making any improvements, alterations, modifications and/or repairs to or within the Premises to correct violations of construction-related accessibility standards including, without limitation, any violations disclosed by such CASp inspection; and (E) if such CASp inspection identifies any improvements, alterations, modifications and/or repairs necessary to correct violations of construction-related accessibility standards relating to those items of the Building and Project located outside the Premises that are Landlord's obligation to repair as set forth in this Lease, then Landlord shall perform such improvements, alterations, modifications and/or repairs as and to the extent required by Legal Requirements to correct such violations, and Tenant shall reimburse Landlord for the cost of such improvements, alterations, modifications and/or repairs within 10 business days after Tenant's receipt of an invoice therefor from Landlord. Landlord and Tenant expressly acknowledge and agree that the foregoing provisions of this Section 41(p) shall apply only in the event that Tenant elects to obtain a CASp inspection. In the event that Tenant does not elect to obtain a CASp inspection, the terms and provisions of this Section 41(p) regarding the allocation of costs for Alterations and improvements shall not be applicable.

(q) **Counterparts**. This Lease may be executed in 2 or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature process complying with the U.S. federal ESIGN Act of 2000) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes. Electronic signatures shall be deemed original signatures for purposes of this Lease and all matters related thereto, with such electronic signatures having the same legal effect as original signatures.

[Signatures on next page]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first above written.

TENANT:

ATARA BIOTHERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Pascal Touchon
Its: CEO

□ I hereby certify that the signature, name, and title above are my signature, name and title

LANDLORD:

ARE-LA REGION NO. 2, LLC,
a Delaware limited liability company

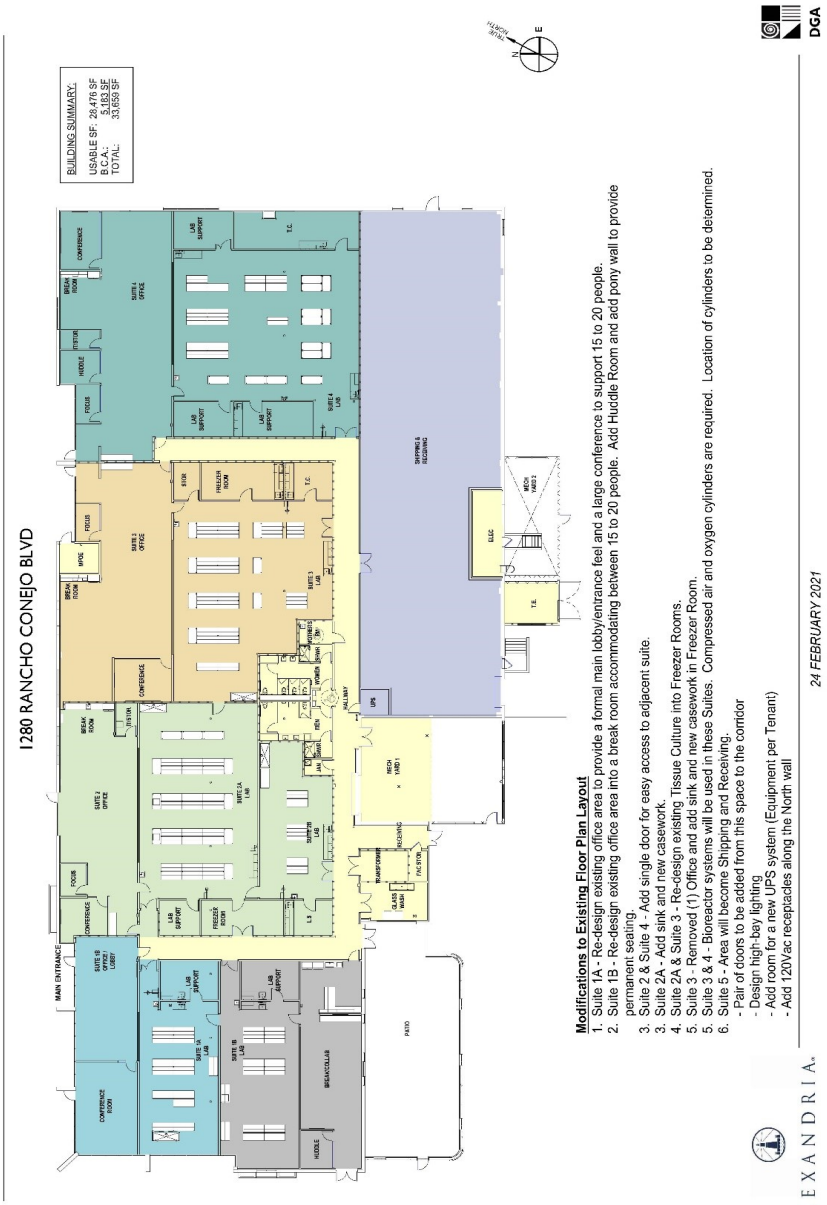
By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

By: /s/ Mark Hikin
Its: VP Real Estate Legal Affairs

EXHIBIT A TO LEASE

DESCRIPTION OF PREMISES



Modifications to Existing Floor Plan Layout

1. Suite 1A - Re-design existing office area to provide a formal main lobby/entrance feel and a large conference to support 15 to 20 people.
2. Suite 1B - Re-design existing office area into a break room accommodating between 15 to 20 people. Add Huddle Room and add pony wall to provide permanent seating.
3. Suite 2 & Suite 4 - Add single door for easy access to adjacent suite.
3. Suite 2A - Add sink and new casework.
4. Suite 2A & Suite 3 - Re-design existing Tissue Culture into Freezer Rooms.
5. Suite 3 - Removed (1) Office and add sink and new casework in Freezer Room.
5. Suite 3 & 4 - Bioreactor systems will be used in these Suites. Compressed air and oxygen cylinders are required. Location of cylinders to be determined.
6. Suite 5 - Area will become Shipping and Receiving.
   - Pair of doors to be added from this space to the corridor
   - Design high-bay lighting
   - Add room for a new UPS system (Equipment per Tenant)
   - Add 120Vac receptacles along the North wall

DGA

24 FEBRUARY 2021

ALEXANDRIA.

EXHIBIT B TO LEASE

DESCRIPTION OF PROJECT

A CONDOMINIUM COMPRISED OF:

PARCEL 1:

UNIT 1 AND UNIT 2 OF UNIT MAP NO. 3971, A CONDOMINIUM AS CREATED BY THAT CERTAIN SECOND AMENDED AND RESTATED DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS OF UNIT MAP NO. 3971 RECORDED SEPTEMBER 6, 2019 AS INSTRUMENT NO. 20190906-00104990-0 OF OFFICIAL RECORDS, TOGETHER WITH EASEMENT RIGHTS AND THEIR RESPECTIVE UNDIVIDED PERCENTAGE INTEREST IN THE COMMON ELEMENTS, AS DEFINED AND DELINATED IN SAID CONDOMINIUM DECLARATION,

EXCEPT ALL OIL, GAS, AND HYDROCARBON SUBSTANCES IN, UNDER AND UPON SAID PROPERTY, WITHOUT RIGHT TO DRILL, DIG OR MINE THROUGH THE SURFACE OF LAND THEREFOR AND WITHOUT THE RIGHT TO ENTER OR ENCROACH UPON ANY PORTION OF SAID LYING WITHIN 500 FEET OF THE SURFACE, AS RESERVED BY REPUBLIC FASTENER MFG, CORP., A CALIFORNIA CORPORATION, RECORDED SEPTEMBER 26, 2007 AS INSTRUMENT NO. 20070926-0018450-0 OF OFFICIAL RECORDS.

PARCEL 2:

ACCESS AND PARKING EASEMENTS FOR THE BENEFIT OF UNIT 1 AND UNIT 2, AS SET FORTH IN SECOND AMENDED AND RESTATED DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS OF UNIT MAP NO. 3971, RECORDED SEPTEMBER 6, 2019 AS INSTRUMENT NO, 20190906-00104756-0 OF OFFICIAL RECORDS.

For conveyancing purposes only:
APN 667-0-160-055 (Affects Unit 1)
667-0-160-045 (Affects Unit 2)

EXHIBIT C TO LEASE

WORK LETTER

THIS WORK LETTER dated March 17, 2021 (this "**Work Letter**") is made and entered into by and between **ARE-LA REGION NO. 2, LLC**, a Delaware limited liability company ("**Landlord**"), and **ATARA BIOTHERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated March 17, 2021 (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates Keith Kato ("**Tenant's Representative**") as the only person authorized to act for Tenant pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Andy Reinach and Peter Moglia (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) DPR shall be the general contractor for the Landlord's Work, (ii) DGA shall be the architect (the "**TI Architect**") for Landlord's Work, and (iii) any subcontractors for Landlord's Work shall be selected by Landlord.

2. **Tenant Improvements and Warm Shell Improvements**.

(a) **Tenant Improvements and Warm Shell Improvements Defined**. As used herein, (i) "**Tenant Improvements**" shall mean all improvements to Suite 1 and Suites 2-4, respectively, of a fixed and permanent nature as shown on the TI Construction Drawings, as defined in Section 2(c) below, and (ii) "**Warm Shell Improvements**" shall mean the modified warm shell improvements to Suite 5 as shown identified on the Warm Shell Improvements responsibility matrix attached to this Work Letter as **Schedule 3** (the "**Warm Shell Responsibility Matrix**") as being "Installed and Paid for by Landlord." For the avoidance of doubt, Tenant shall be responsible, at Tenant's cost, for those items identified on the Warm Shell Responsibility Matrix as being "Paid for By Tenant." Other than Landlord's Work (as defined in Section 3(a) below), Landlord shall not have any obligation whatsoever with respect to the finishing of the Premises for Tenant's use and occupancy. Tenant acknowledges and agrees that the Tenant Improvements in Suite 1 and Suites 2-4 and the Warm Shell Improvements in Suite 5 shall be constructed in separate phases.

(b) **Tenant's Space Plans**. Landlord and Tenant acknowledge and agree that the plan prepared by the TI Architect attached hereto as **Schedule 1** (the "**Space Plans**"), the Tenant Improvements Responsibility Matrix attached hereto as **Schedule 2** (the "**TI Responsibility Matrix**") and

the Warm Shell Responsibility Matrix have been approved by both Landlord and Tenant. Landlord shall be responsible, at Landlord's cost, for those items designated in the TI Responsibility Matrix as being "Installed and Paid for by Landlord," and Tenant shall be responsible, at Tenant's cost, for those items designated in the TI Responsibility Matrix and being "Paid For by Tenant." Landlord and Tenant further acknowledge and agree that any changes to the Space Plans, the TI Responsibility Matrix or the Warm Shell Responsibility Matrix constitute a Change Request the cost of which changes shall be paid for by Tenant. Tenant shall be solely responsible for all costs incurred by Landlord to alter the Building (or Landlord 's plans for the Building) as a result of Tenant 's requested changes.

(c) **Working Drawings**. Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the Space Plans. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 10 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the Space Plans without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the Space Plans, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below).

(d) **Approval and Completion**. It is hereby acknowledged by Landlord and Tenant that the TI Construction Drawings must be completed and approved for submission by the date set forth on the construction schedule attached hereto as **Schedule 4**, in order for the Tenant Improvements in Suite 1 to be Substantially Complete by the Target Commencement Date (as defined in the Lease) and the Suites 2-4 Tenant Improvements to be Substantially Complete by the Suites 2-4 Target Commencement Date. Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable by Tenant, and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building Systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements and the Warm Shell Improvements. Notwithstanding anything to the contrary contained in this Lease, Landlord shall be responsible for paying (or reimbursing Tenant) up to $25,000 for remediation or abatement of ACM (asbestos containing materials) in the roofing materials above Suite 5 of the Premises and, only with respect to such remediation or abatement of ACM above Suite 5, any costs in excess of $25,000 shall be borne by Tenant.

Tenant shall be solely responsible for ensuring that the design and specifications for Landlord's Work are consistent with Tenant's requirements. Landlord shall be responsible for obtaining all permits, approvals and entitlements necessary for Landlord's Work, but shall have no obligation to, and shall not, secure any permits, approvals or entitlements related to Tenant's specific use of the Premises or Tenant's business operations therein.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the construction of the Tenant Improvements consistent with the TI Construction Drawings approved by Tenant. The cost of obtaining the TI Permit shall be payable by Landlord. Tenant shall assist Landlord in obtaining the TI Permit. If any Governmental Authority having jurisdiction over the construction of the Tenant Improvements or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing the Tenant Improvements, or (iii) will materially delay the construction of the Tenant Improvements, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of the Tenant Improvements and Warm Shell Improvements** . Landlord shall substantially complete or cause to be substantially completed the Tenant Improvements in a good and workmanlike manner, in accordance with the TI Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of Suite 1 and Suites 2-4 ("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of the Tenant Improvements with respect to Suite 1 and Suites 2-4, respectively, Landlord shall require the TI Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704. For purposes of this Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

Landlord shall cause the Warm Shell Improvements in Suite 5 to be constructed, at Landlord's cost (except for any Changes which Landlord agrees to make with respect to the Warm Shell Improvements at Tenant's request), in accordance with applicable Legal Requirements. Landlord shall use reasonable efforts to substantially complete the Warm Shell Improvements by the Target Commencement Date (as such date may be delayed for Force Majeure and delays caused by Tenant), except for finishing details, minor omissions, decorations and mechanical adjustments of the type normally found on an architectural "punch list" (which Landlord shall use commercially reasonable efforts to cause to be completed within a reasonable period after the substantial completion of the Warm Shell Improvements has occurred). Tenant shall be deemed to have caused a delay with respect to the substantial completion of the Warm Shell Improvements to the extent that any material disruption to or interference with the Warm Shell Improvements caused by Tenant's employees, agents, contractors or Tenant's Representatives that is not cured within one (1) business day after Tenant's receipt of written notice thereof from Landlord.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's reasonable discretion. As to all building materials and equipment that Landlord is obligated to supply under this Work Letter, Landlord shall select the manufacturer thereof in its reasonable discretion.

(e) **Delivery of the Premises**. When Landlord's Work in Suite 1 and Suites 2-4, respectively, is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e), Tenant shall accept such applicable portion of the Premises. Tenant's taking possession and acceptance of Suite 1 and Suites 2-4, respectively, shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of the Tenant Improvements with applicable Legal Requirements, or (iii) any claim that the Tenant Improvements were not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall use

reasonable efforts to remedy or cause the responsible contractor to remedy any such Construction Defect within 30 days thereafter. Notwithstanding the foregoing, Landlord shall not be in default under the Lease if the applicable contractor, despite Landlord' s reasonable efforts, fails to remedy such Construction Defect within such 30-day period. If the contractor fails to remedy such Construction Defect within a reasonable time, Landlord shall , at no cost to Tenant, use its reasonable efforts to remedy the Construction Defect within a reasonable period.

Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Premises as part of the Tenant Improvements. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely by Tenant. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(f) **Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Suite 1 and Suites 2-4, respectively, shall occur when the Tenant Improvements in the applicable portion of the Premises has been Substantially Completed, except to the extent that completion of such Tenant Improvements shall have been actually delayed by any one or more of the following causes ("**Tenant Delay**"):

(i) Tenant's Representative was not available to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Tenant Improvements. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess TI Costs (as defined in Section 5(b) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons.

If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Tenant Improvements would have been Substantially Completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, use commercially reasonable efforts to respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid by Tenant or, if elected by Tenant, from the Allowance, to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which the Tenant Improvements will be Substantially Complete. Any such delay in the completion of the Tenant Improvements caused by a Change, including any suspension of the Tenant Improvements while any such Change is being evaluated and/or designed, shall be Tenant Delay.

Tenant acknowledge that, prior to the date hereof, Tenant has requested certain modifications with respect to Landlord's Work as more particularly reflected on **Schedule 5** attached hereto. Landlord shall perform such modifications as part Landlord's Work and the cost of the same shall constitute Excess TI Costs.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of the Tenant Improvements, if any, and (ii) deposits with Landlord any Excess TI Costs required in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **TI Costs**. Landlord shall be responsible for the payment of design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of preparing the TI Construction Drawings and the Space Plans (collectively, "**TI Costs**"). Notwithstanding anything to the contrary contained herein, in no event shall Landlord be required to pay for any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, Tenant's voice or data cabling, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Tenant Improvements.

(b) **Excess TI Costs**. Notwithstanding anything to the contrary contained herein, Tenant acknowledges and agrees that Landlord shall have no responsibility for any costs arising from or related to the purchase or installation of the UPS System in Suite 5, Tenant's changes to the Space Plans or TI Construction Drawings, Tenant Delays, the cost of Changes and Change Requests (collectively, "**Excess TI Costs**"). To the extent that there are Excess TI Costs, Tenant shall be responsible for paying for all such Excess TI Costs and shall, to the extent that the Allowance is not applied toward such Excess TI Costs, deposit with Landlord within 10 days after Landlord's written request therefor, as a condition precedent to Landlord's obligation to complete the Tenant Improvements, 100% of the Excess TI Costs. If Tenant fails to deposit any Excess TI Costs with Landlord, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease.

(c) **Allowance**. Landlord shall provide to Tenant an "**Allowance**" in the maximum amount of $40.00 per rentable square foot of the Premises which shall, to the extent used, result in TI Rent as set forth in Section 4(b) of the Lease. The Allowance may be used , at Tenant's election, for the payment of Excess TI Costs.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, (i) to Suite 1 for a period of 30 days prior to the Suite 1 Commencement Date and to Suites 2-4 for a period of 30 days prior to the Suites 2-4 Commencement Date to perform any work ("**Tenant's Work**") required by Tenant other than the Tenant Improvements, provided that such Tenant's Work is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose, and (ii) prior to the completion of the Tenant Improvements, to inspect and observe work in process. In addition, Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to Suite 5 for a period of 30 days prior to the Suite 5 Commencement Date to perform any Tenant's Work required by Tenant in Suite 5 other than the Warm Shell Improvements, provided that such Tenant's Work in Suite 5 is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose. All access by Tenant permitted under this Section 6(a) shall be during normal business hours or at such other times as are reasonably designated by Landlord. Notwithstanding the foregoing, Tenant shall have no right to enter onto the Premises or the Project unless and until Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord demonstrating that any insurance reasonably required by Landlord in connection with such pre-commencement access (including, but not limited to, any insurance that Landlord may require pursuant to the Lease) is in full force and effect. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Premises and the Project until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Premises**. The fact that Tenant may, with Landlord's consent, enter into the Project prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

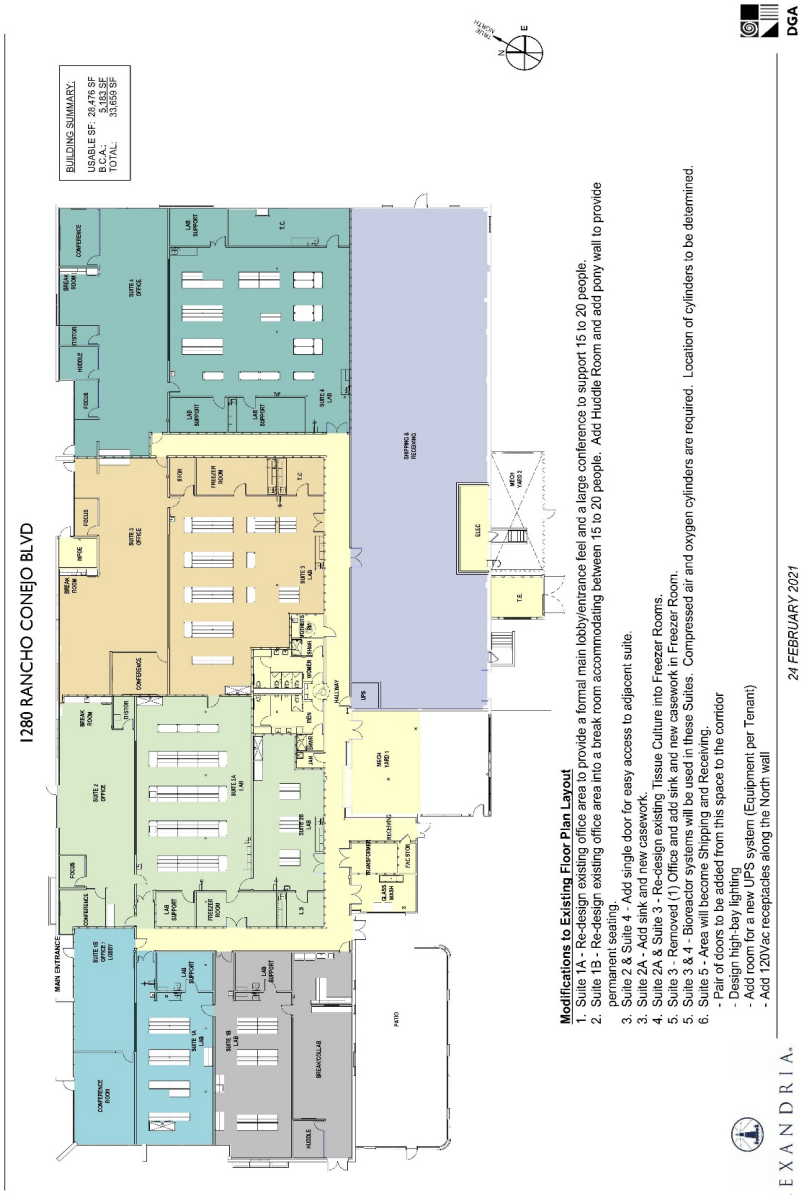
(a) **Consents**. Whenever consent or approval of either party is required under this Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

(c) **No Default Funding**. In no event shall Landlord have any obligation perform any Landlord's Work or fund any portion of the Allowance during any period that Tenant is in default under the Lease (beyond any applicable notice and cure periods).

Schedule 1

Space Plans



Modifications to Existing Floor Plan Layout

1. Suite 1A - Re-design existing office area to provide a formal main lobby/entrance feel and a large conference to support 15 to 20 people.
2. Suite 1B - Re-design existing office area into a break room accommodating between 15 to 20 people. Add Huddle Room and add pony wall to provide permanent seating.
3. Suite 2 & Suite 4 - Add single door for easy access to adjacent suite.
4. Suite 2A - Add sink and new casework.
5. Suite 2A & Suite 3 - Re-design existing Tissue Culture into Freezer Rooms.
6. Suite 3 - Removed (1) Office and add sink and new casework in Freezer Room.
7. Suite 3 & 4 - Bioreactor systems will be used in these Suites. Compressed air and oxygen cylinders are required. Location of cylinders to be determined.
8. Suite 5 - Area will become Shipping and Receiving.
   - Pair of doors to be added from this space to the corridor
   - Design high-bay lighting
   - Add room for a new UPS system (Equipment per Tenant)
   - Add 120Vac receptacles along the North wall

Schedule 2

TI Responsibility Matrix

DESCRIPTION	ALLOCATION	
Note: Reference attached diagram showing highlighted landlord scope areas.	**Installed and Paid for by Landlord**	**Paid For by Tenant**
PERMITS & FEES		
Building Site, Core & Shell and spec suite 1 thru 4 TI Permit & Fees	X	
All Tenant-related operation and bulk gas Permit & Fees		X
SITEWORK		
Sidewalks, curbs, landscaping and asphalt parking, including all ADA & Fire lane requirements	X	
Equipment yards, including all curbs, pads, and drainage for base building systems	X	
Patio and/or equipment yards, including all curbs, pads, and drainage for Tenant equipment and Premises		X
Building monument sign (existing)	X	
Tele/Data conduits to main point of entry (MPOE) for local exchange carrier	X	
Domestic sanitary sewer to the building with connection to street lateral, sized by landlord for typical lab/office building	X	
Building Lab waste main stubbed into suite, connected to sanitary sewer at a single sample port	X	
Exterior hazardous material storage shed(s) and associated NFPA signage (set at Landlord approved location)		X
Main site storm drain utilities	X	
SCE 2,000 amp primary electrical service to U/G pull section & meter main	X	
Gas service to meter & pressure regulator, sized by landlord for typical lab/office building	X	
Domestic water service with connection at the street lateral, sized by landlord for typical lab/office building	X	
Fire Water service to hydrants and building riser with connection at the street lateral	X	
Trash Enclosure and Concrete or Asphalt Pad with gate	X	
At-grade loading area on south side of building	X	
Recessed loading dock and existing roll-up door on west end of suite 5	X	
Service yard on south side of building to house base building systems	X	
Site FF&E		X
Irrigation water & distribution lines and existing water feed to landscaping	X	
Domestic water bibs on site as deemed necessary by LL for maintenance and convenience	X	

LANDSCAPING		
Site softscape including landscaping and irrigation service to include location, species and sizes of trees, shrubs and groundcovers	X	
Site hardscape including walkways, driveways, curbing, patio (east half) and exterior lighting.	X	
STRUCTURE		
Concrete pads for base building equipment	X	
Concrete pads in and on the structure for base building equipment such as air handlers, exhaust fans, VFD's, etc. in support of suite 1 thru 4	X	
Miscellaneous metal items and/or concrete pads for base building equipment in support of suites 1 thru 4	X	
Supplemental support for ductwork, piping, equipment, fixtures, etc. hung from floor structure or roof structure required at Tenant Premises for suites 1 thru 4	X	
Roof Hatch & Access Ladder	X	
ROOFING		
Class 'A' roofing system and insulation	X	
Roof penetrations for base building equipment & systems in support of suites 1 thru 4, using based building roofing subcontractor to protect warranty.	X	
Roof screening for base building rooftop equipment, per City Standards, if required	X	
Roof screening for Tenant rooftop equipment, per City Standards, if required		X
EXTERIOR		
Water-tight base building exterior skin & roof	X	
Base building entrances	X	
COMMON AREAS		
Common corridors and finishes in the corridors	X	
Code required bicycle storage	X	
Centrally located common restrooms and shower facilities	X	
Building common at-grade shipping/receiving	X	
Walls in Base Building utility rooms shall have final paint, sealed concrete floors, or other equivalent finish (to be defined by LL)	X	
Code required signage for all base building rooms (MPOE, Main Electrical Room, electrical room)	X	
Janitor's closets in core areas	X	
Main Electrical and MPOE rooms	X	
Transformer Room in core areas for building-wide distribution	X	
WINDOW TREATMENT		
Window Treatments at perimeter windows for all suites and common areas	X	

TENANT AREAS		
Drywall at inside face of exterior walls at suites 1 thru 4	X	
Finishes at inside face of exterior walls at suites 1 thru 4	X	
Perimeter soffits at exterior walls at suites 1 thru 4	X	
Finishes at inside face at Tenant side of core partitions at suites 1 thru 4	X	
Tenant Tele/data/IDF rooms to support suites 1 thru 4, total 2	X	
Tenant break or kitchen areas to support suites 1 thru 4	X	
Partitions, ceilings, flooring, painting, finishes, doors, frames, hardware, millwork, casework, and buildout at suites 1 thru 4	X	
Wire shelving & chemical racking systems		X
All casework in tenant areas at suites 1 thru 4	X	
Laboratory Equipment: autoclave, glasswasher, and ice maker	X	
Chemical Fume Hoods, walk-in fume hood, lab casework at suites 1 thru 4	X	
Fixtures, Furniture, Equipment (FF&E)		X
Dishwashers, garbage disposals, and other items that will remain with the property	X	
Audio Visual Equipment, low-voltage cabling, and associated supports		X
All interior code required signage for Tenant Premises at suites 1 thru 4	X	
All wayfinding signage and tenant specific signage within tenant suite, for branding purposes		X
FIRE PROTECTION		
Existing fire service entrance including fire department connection, alarm valve, and flow protection	X	
Common area distribution piping and sprinkler heads	X	
Code-compliant fire protection system throughout building for Shell building	X	
Modification of sprinkler branch and main piping and head locations to suit Tenant layout & traditional hazard index for a light hazard lab building for suites 1 thru 4	X	
Specialized extinguishing systems		X
Pre-Action dry-pipe systems (if required)		X
Fire extinguishers and cabinets required for C&S and suites 1 thru 4	X	
PLUMBING		
Domestic water generation and distribution for building	X	
Domestic water distribution within Tenant Premises - suites 1 thru 4	X	
Domestic hot water generation and distribution for Tenant use at suites 1 thru 4	X	
Base building restroom plumbing fixtures compliant with accessibility requirements	X	
Restroom plumbing fixtures compliant with accessibility requirements for Tenant premises	X	

Industrial water for building use	X	
Industrial water distribution within Tenant Premises, including reduced pressure backflow preventers at suites 1 thru 4	X	
Industrial hot water generation for Tenant use at suites 1 thru 4	X	
Roof storm drainage system	X	
Sanitary waste and vent service for core areas	X	
Sanitary waste and vent distribution serving Tenant premises at suites 1 thru 4	X	
Lab waste and vent pipe distribution serving Tenant premises at suites 1 thru 4	X	
Specialty gas manifolds, cylinders, bulk tanks, etc.		X
Specialty gas piping distribution from manifold to points of use		X
House compressed air, lab vacuum, and RO/DI distribution serving Tenant premises and Tenant points of use at suites 1 thru 4	X	
NATURAL GAS		
Natural gas service for electric power generating equipment supporting Tenant equipment		X
Natural gas service to Base Building boilers	X	
Natural gas pipe distribution to/in tenant program areas		X
HEATING, VENTILATION, AIR CONDITIONING		
Air handling and exhaust equipment, duct distribution, VAV terminals, equipment connections, insulation, dampers, hangers, etc.., serving suites 1 thru 4 - designed for 10 AC/HR	X	
Supply, exhaust and transfer air distribution for common restrooms	X	
Electric room ventilation system for main building electrical closets	X	
Base expandable Building Management System (BMS) for Base Building Infrastructure & suite 1 thru 4 HVAC equipment	X	
Environmental Management System (EMS) for Tenant use		X
Additional/dedicated cooling for Tenant requirements		X
ELECTRICAL		
Floor-mounted/stationary Uninterruptable Power System (UPS) to remain with property		X
Small/mobile/point-of-use Uninterruptable Power Supply (UPS)		X
Electrical utility service to main meter section and house panel in main electrical room	X	
2,000 amp building service equating to 29 Watts/SF across the entire building	X	
Standby power generator capacity for life safety and core related loads, including pad, sized for typical lab/office building at 400kW	X	

Automatic transfer switch for life safety loads on generator for base building loads	X	
Standby power generator capacity and Automatic transfer switch including associated pads for building emergency power needs allocated at 4 Watts/SF across the program area	X	
Distribution of standby power within Tenant Premises for Tenant loads, suites 1 thru 4	X	
Primary 480V transformer and metered distribution panel for Tenant suites	X	
Sub panels and distribution for Tenant premises at suites 1 thru 4	X	
Main building lighting panel	X	
Lighting and power distribution for site lighting	X	
Lighting and power distribution for core areas	X	
Tenant lighting panel with meter assembly and distribution to support Tenant Premises at suites 1 thru 4	X	
Shell area life safety emergency lighting/signage	X	
Tenant Premises life safety emergency lighting/signage at suites 1 thru 4	X	
FIRE ALARM		
Base expandable fire alarm system	X	
Building fire alarm system with devices in core areas	X	
Fire alarm sub panels and devices for Tenant Premises with integration into Base Building system at suites 1 thru 4	X	
TELEPHONE/DATA		
Underground local service provider conduit to MPOE room for copper and fiber optic service	X	
Tenant tel/data rooms - suites 1 thru 4 - 2 total	X	
Pathways from MPOE room directly into Tenant tele/data rooms	X	
Tel/Data cabling from MPOE room to Tenant tele/data room		X
Fiber optic service for Tenant use (from MPOE)		X
Tel/Data cabling from Tenant tele/data room to individual points of use in Tenant Premises. Includes patch panels as required at suites 1 thru 4		X
Tel/data equipment, including servers, computers, phone systems, switches, routers, MUX panels, equipment racks, ladder racks, etc.		X
Provisioning of circuits and service from service providers.		X
Audio visual systems		X
SECURITY		
Card access and video camera coverage at Building exterior and interior (to be selected by landlord) with the exception of the main electrical room	X	
Glass break and alarm systems	X	

Schedule 3

Warm Shell Responsibility Matrix

DESCRIPTION	ALLOCATION	
Note: Reference attached diagram showing highlighted landlord scope areas.	**Installed and Paid for by Landlord**	**Paid for by Tenant**
PERMITS & FEES		
Building site, core & shell, and tenant improvement Permit & Fees	X	
All Tenant-related project and operational and bulk gas Permits & Fees (including warehouse racking permits)		X
SITEWORK		
Sidewalks, curbs, landscaping and asphalt parking, including patios and all ADA & Fire lane requirements	X	
Tele/Data conduits to main point of entry (MPOE) for local exchange carrier	X	
Domestic sanitary sewer to the building with connection to street lateral, sized by landlord for typical lab/office building	X	
Building Lab waste main stubbed into suite, connected to sanitary sewer at a single sample port	X	
Exterior hazardous material storage shed(s) and associated NFPA signage (set at Landlord approved location)		X
Main site storm drain utilities	X	
SCE existing primary electrical service to U/G pull section & meter main.	X	
Existing gas service to meter & pressure regulator, sized by landlord for typical lab/office building	X	
Domestic water service with connection at the street lateral, sized by landlord for typical lab/office building	X	
Fire Water service to hydrants and building riser with connection at the street lateral	X	
Trash Enclosure and Concrete or Asphalt Pad with gate	X	
Depressed loading area on south side of building with new dock leveler (far west end of Suite 5)	X	
Service yard on south side of building to house landlord-provided process equipment	X	
Irrigation water & distribution lines and existing water feed to landscaping	X	
Domestic water bibs on roof & site as deemed necessary by LL for maintenance and convenience	X	
Site FF&E		X
LANDSCAPING		
Site softscape including landscaping and irrigation service to include location, species and sizes of trees, shrubs and groundcovers.	X	

Site hardscape including walkways, driveways, curbing, patios, and exterior lighting.	X	
STRUCTURE		
Concrete pads for base building equipment	X	
Concrete pads in and on the structure for base building equipment such as air handlers, exhaust fans, VFD's, etc.	X	
Shaft openings for base building utility risers.	X	
Miscellaneous metal items and/or concrete pads for base building equipment.	X	
Supplemental support for ductwork, piping, equipment, fixtures, etc. hung from floor structure or roof structure required at Tenant Premises	X	
Roof Hatch & Access Ladder	X	
ROOFING		
Class 'A' roofing system and insulation	X	
Roof penetrations for base building equipment & systems, using based building roofing subcontractor to protect warranty	X	
Roofing penetrations for mechanical and plumbing equipment	X	
EXTERIOR		
Water-tight base building exterior skin & roof	X	
Base building entrances, including receiving door at common loading area	X	
COMMON AREAS		
Building common at-grade shipping/receiving area adjacent to patio	X	
Walls in Base Building utility rooms shall have final paint, sealed concrete floors, or other equivalent finish (to be defined by LL)	X	
Code required signage for all base building rooms (MPOE, Main Electrical Room, electrical room)	X	
Glasswash room containing glasswasher, ice maker, and autoclave	X	
Janitor's closets in core areas	X	
Main Electrical and MPOE rooms	X	
Electrical/Transformer room in common areas for tenant suites & base building systems	X	
WINDOW TREATMENT		
Window Treatments at perimeter windows		X
TENANT AREAS		
Drywall at inside face of exterior walls, inclusive of framing/furring, drywall and insulation, including insulation to meet Title 24		X
Finishes at inside face of exterior walls, as required		X
Perimeter soffits at exterior walls if required		X
Finishes at inside face at Tenant side of core partitions		X

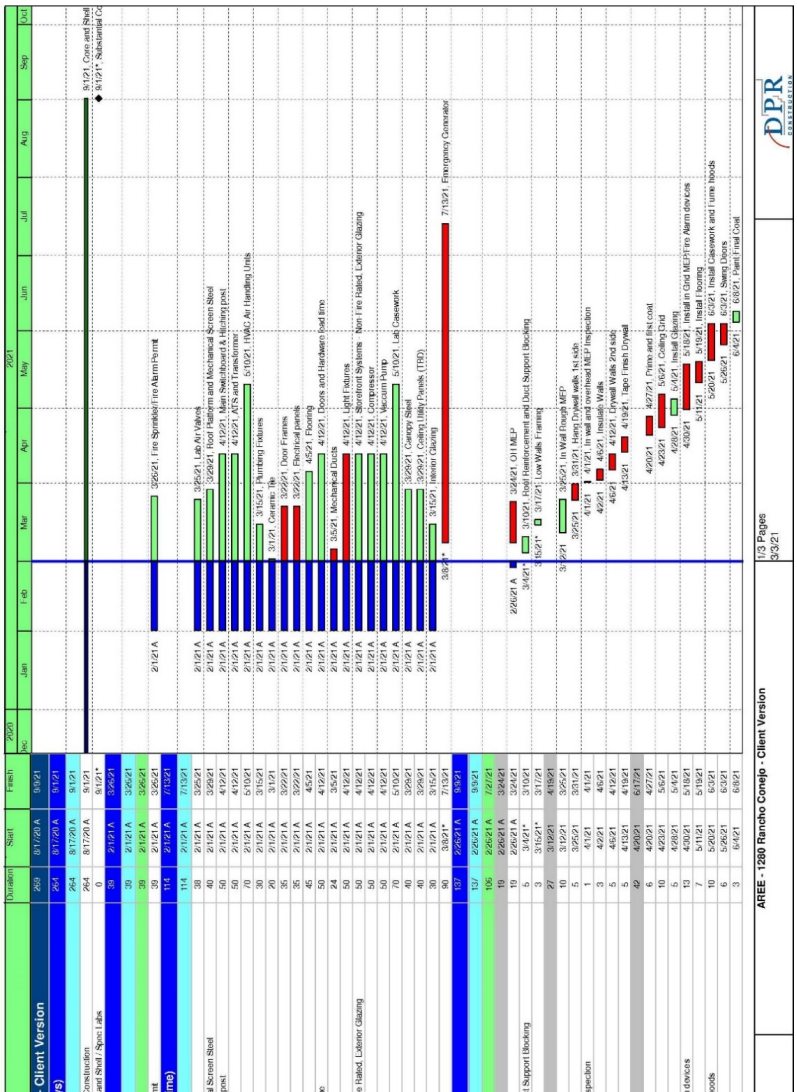
Tenant Tele/data/IDF rooms (total of 2)		X
Tenant break or kitchen areas		X
Partitions, ceilings, flooring, painting, finishes, doors, frames, hardware, and millwork buildout		X
Wire shelving, conventional and chemical racking systems, flammable or hazardous materials storage cabinets		X
Dedicated warehouse, packing, packaging, storage, and other type of specialty equipment		X
Fixtures, Furniture, Equipment (FF&E)		X
Dishwashers, garbage disposals, and other items that will remain with the property		X
All interior code required signage for Tenant Premises, in support of building signoff	X	
All hazardous materials signage, wayfinding signage and tenant specific signage within tenant suite for branding purposes		X
FIRE PROTECTION		
Existing fire service entrance including fire department connection, alarm valve, and flow protection.	X	
Modification of sprinkler branch and main piping and head locations to suit Tenant layout & traditional hazard index for a light hazard lab building		X
Sprinkler system capacity and modifications required for pallet racking system		X
Specialized extinguishing systems		X
Pre-Action dry-pipe systems (if required)		X
Fire extinguishers and cabinets for Suite 5, per Code		X
PLUMBING		
Domestic water generation and distribution for Common Areas & stubbed into Tenant suite	X	
Domestic water distribution within Tenant Premises		X
Domestic hot water generation for Tenant use	X	
Base building restroom plumbing fixtures compliant with accessibility requirements	X	
Industrial water stubbed into Tenant suite	X	
Roof storm drainage system	X	
Sanitary waste and vent service for core areas & the waste line stubbed into Tenant suite	X	
Sanitary waste and vent distribution serving Tenant premises		X
Lab waste main trunk line stubbed into Tenant suite	X	
Specialty gas manifolds, cylinders, etc.		X
Specialty gas distribution from manifold to point of use		X
House compressed air, lab vacuum, and RO/DI equipment with distribution stubbed into Tenant suite	X	
NATURAL GAS		
Natural gas service for electric power generating equipment	X	

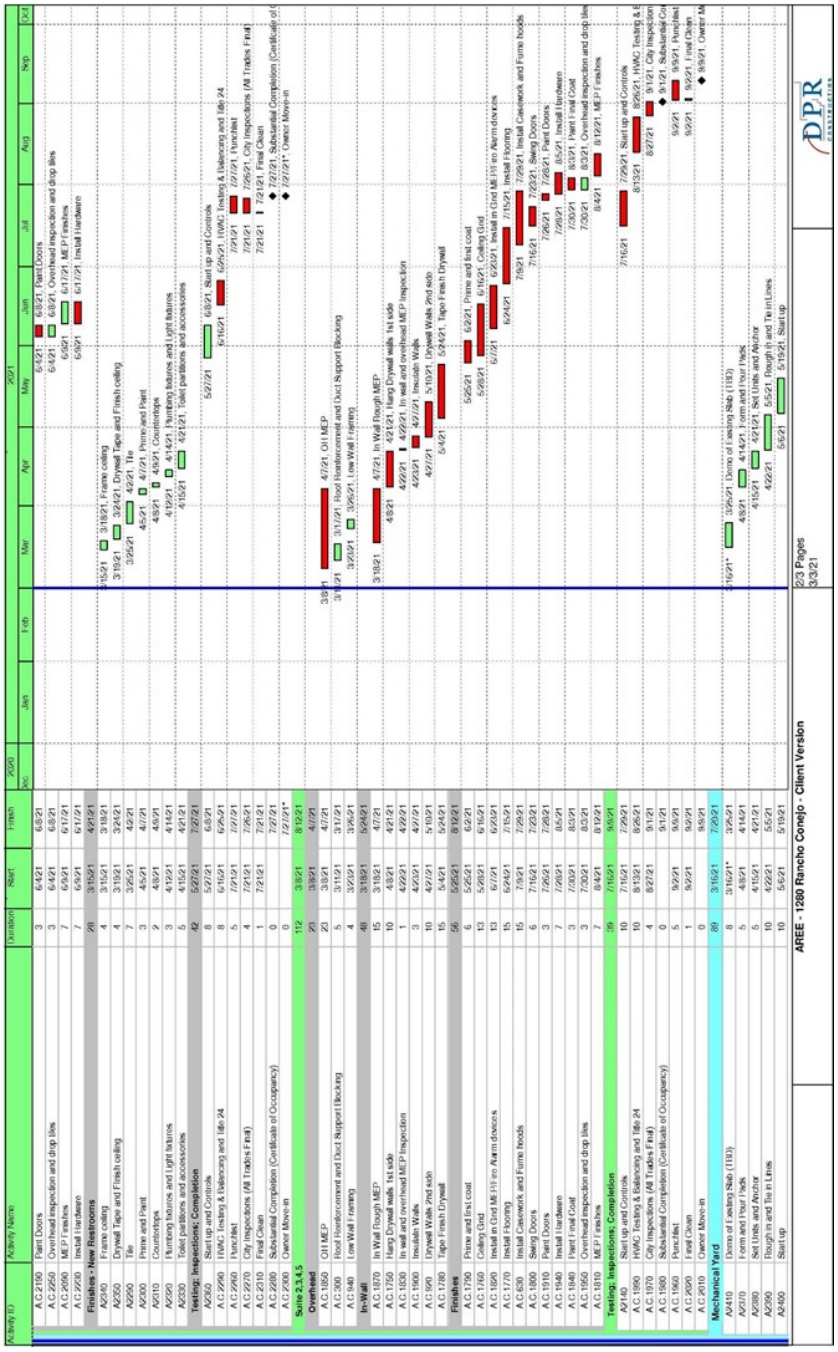
Natural gas service to Base Building boilers	X	
HEATING, VENTILATION, AIR CONDITIONING		
Dedicated air handling unit serving Tenant space providing an average of 10 AC/HR	X	
Rooftop exhaust fan supporting Tenant space providing an average of 10 AC/HR	X	
Main vertical supply air duct stubbed into tenant premises	X	
Supply air duct distribution, VAV terminals, fan coils, equipment connections, insulation, dampers, hangers, etc. within Tenant Premises		X
Main exhaust air duct vertical distribution, stubbed into tenant premises	X	
Exhaust air duct distribution, VAV terminals, equipment connections, insulation, dampers, hangers, etc. within Tenant Premises		X
Outside air duct distribution, VAV terminals, equipment connections, dampers, hangers, etc. within Tenant Premises		X
Supply, exhaust and transfer air distribution for common restrooms	X	
Electric room ventilation system for main building electrical closets	X	
Electric room ventilation system for electrical closets within Tenant Premises		X
Base expandable Building Management System (BMS) for Base Building Infrastructure (warm-up mechanical equipment controls)	X	
Building Management System (BMS) for Tenant mechanical systems with integration into Base BMS system		X
Supplemental or dedicated cooling for Tenant requirements		X
ELECTRICAL		
Floor-mounted/stationary Uninterruptable Power System (UPS)		X
Small/mobile/point-of-use Uninterruptable Power Supply (UPS)		X
Electrical utility service to main meter section and house panel in main electrical room	X	
Base building electrical service	X	
Standby power generator capacity for life safety and core related loads, including pad, sized for typical lab/office building	X	
Automatic transfer switch for life safety loads on generator for base building loads	X	
Standby power generator capacity and Automatic transfer switch including associated pads for building emergency power needs allocated at 4 Watts/SF across Tenant program area	X	

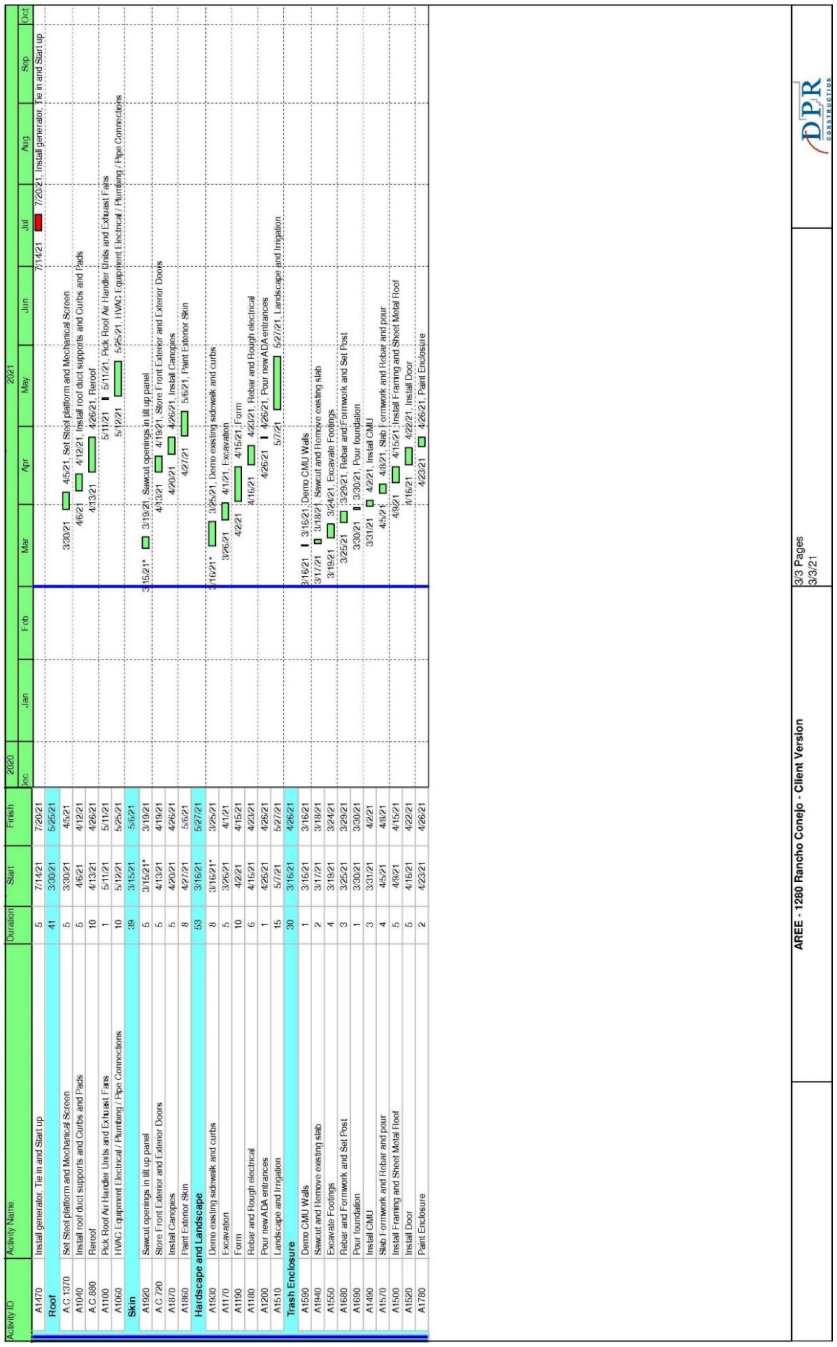
Distribution of standby power within Tenant Premises for Tenant loads		X
Primary 480V transformer and distribution panel for Tenant suite	X	
Main Tenant panels and transformer	X	
Sub panels and distribution for Tenant premises		X
Main building lighting panel	X	
Lighting and power distribution for site lighting	X	
Lighting and power distribution for core areas	X	
Tenant lighting panel and distribution for Tenant Premises		X
Shell area life safety emergency lighting/signage	X	
Tenant Premises life safety emergency lighting/signage		X
FIRE ALARM		
Base expandable fire alarm system	X	
Building fire alarm system with devices in core areas	X	
Fire alarm sub panels and devices for Tenant Premises		X
TELEPHONE/DATA		
Underground local service provider conduit to MPOE room for copper and fiber optic service	X	
Tenant tel/data rooms, including one 2-post rack		X
Pathways from MPOE room directly into Tenant tele/data rooms	X	
Tel/Data cabling from MPOE room to Tenant tele/data room		X
Fiber optic service for Tenant use (from MPOE)		X
Tel/Data cabling from Tenant tele/data room to individual points of use in Tenant Premises. Includes patch panels as required		X
Tel/data equipment, including servers, computers, phone systems, switches, routers, MUX panels, equipment racks, ladder racks, etc.		X
Provisioning of circuits and service from service providers		X
Audio visual systems		X
SECURITY		
Card access and video camera coverage at Building exterior and interior (to be selected by landlord) with the exception of the main electrical room	X	
Supplemental card access and surveillance cameras for Tenant suite		X
Glass break and alarm systems	X	

Schedule 4

Construction Schedule







Schedule 5

Modifications

#	SCOPE	SCOPE BREAKOUT	ROM	SCHEDULE IMPACTS	NOTES / DECISIONS / ACTION ITEM
1	**CO2**	Includes CO2 distribution piping from bulk tank located in Mech Yard 2 (bulk tank by Atara) to points of use drops shown on DGA drawings dated 02/25/21. Includes all electrical and lab casework modifications associated with adding CO2 service. Includes demolition and concrete for new CO2 bulk tank. Excludes rental and installation of the CO2 tank (by Atara)	$204,040.00		Pacific Rim to confirm pricing includes expediting as needed to have no schedule delays. DPR/PRM to confirm by 3/4.
2	**UPS**	Includes furnish and installation of new 200 kVA UPS, per Atara's user requirements. Includes UPS distribution and outlets per DGA drawings dated 02/25/21. Includes construction of new UPS room located in the north-west corner of Suite 5.	$245,500.00		UPS schedule impacts are being evaluated by Taft. Expected schedule confirmation expected by 3/19. No schedule impacts to Suite 1 TCO are anticipated due to UPS not connected to Life Safety devices.
3	**Generator**	Includes furnish and installation of new 1250 kVA Generator, per Atara's user requirements. Includes all assocaited changes to permitting, ATS, panelboards and feeders due to revised generator size. Includes e-power distribution and outlets per DGA drawings dated 02/25/21. Includes costs for construction of larger concrete pad.	$275,000.00	Under current generator schedule, Suite 1 TCO expected 7/27/21. Generator expediting options being evaluated	Generator installation, testing and sign-off by the City Inspector and Fire Department is required for Temporary Certificate of Occupancy due to Life Safety loads being backed up by the Generator. Schedule impact is still being evaluated, with confirmation expected by 3/19. DPR is evaluating options for obtaining Suite 1 TCO without having the permanent generator installed. Options as follows: 1) A rented generator sized to handle only the Life Safety loads to be brought on-site and hooked up to generator hitching post until permanent generator is in place. 2) Building to be placed under 24/7 Fire Watch (Pending Fire Department Decision).
4	**Architectural Changes**				
4.01	**Doors**	Suite 1A: Removed door between 100 & 110 Suite 2: Removed 5x9 cased HM opening at Vest 200A Lab 2A: Added door 220D, 222 (45 min double door) Suite 4: Revise Door 234 to 4'-6" in lieu of 3'-0" Suite 5: Added double door 501E Suite 5: Deleted exterior electrical room door	$9,000.00		
4.02	**Interior Glazing**	Suite 1A: Reduce LF of interior glazing wall Suite 1A & 2: Increased side-light size	Costs covered by ARE		Costs covered by ARE
4.03	**Markerboard**	Suite 1A: Enlarge 4x8 markerboard to 8x10 markerboard Suite 1B: Revise 4x8 markerboard down to 4x5 markerboard Suite 4: Add 4x5 markerboard	Costs covered by ARE		Costs covered by ARE
4.04	**Millwork**	Suite 1B: Additional Break Area counter space Suite 3: Break Room size revised Suite 4: Break Room size revised	Costs covered by ARE		Costs covered by ARE
4.05	**Drywall/Framing**	All Labs: Removed generic wall backing from lab equipment walls - only backing per final equipment layout, as needed All Labs: Added furred wall along exterior (Note 33) approx 100 LF. All Labs: Add/remove soffit over revised millwork areas Suite 2: Removed TV Niche Mothers Room: Revised wall layout Suite 5: Revised electrical room wall furring	Costs covered by ARE		Costs covered by ARE
4.06	**Wall Coverings**	Suite 1: Confernece Room 101 and Huddle Room 131 added Wall Coverings due to revised room layout/size.	$25,000.00		
5	**Lab Casework Changes** Fume Hoods Lab Benchtops Ceiling Service Panels Utility Turrets	Removed and resized the size of Fume Hoods Added lab casework in location of deleted Fume Hoods (unless FH replaced by Atara-furnished BSC) Added utility turrets and modified ceiling service panels due to added lab utilities	-$5,000.00		
6	**Floor Boxes**	Suite 1A: Revised floor box location in Conference Room 101 Suite 1B: Revised floor box location in Conference Room 202	Costs covered by ARE		Costs covered by ARE
7	**Furniture**	**Furniture by Atara** Suite 1A: Add Reception Desk & Lounge Seating	$0.00		Atara-direct scope
8	**Lab Utility Sizing**	At this time, it is determined that the capacity of Lab Water, Compressed Air and Vacuum supply per base-building design is sufficient for Atara's use and does not need to be upsized	$0.00		
9	**Security**	Includes additional card readers and cameras per Atara requirements	Costs covered by ARE		Costs covered by ARE
10	**LN2 / Freezer Rooms**	Includes installation of O2 monitoring system due to LN2. LN2 supply provided by Atara	$55,000.00		O2 Monitors in 3 locations + notification back to BMS
11	**Building Signage**	Room naming and numbering	Costs covered by ARE		
12	**Electrical outlets for insect light traps**	Scope includes receptacle and backing installation. Insect zapper by Atara	$7,000.00		
13	**Suite#5 Shipping & Receiving**	Includes 15' x 10' x 8' Chain Link Fence w/ lockable door, warehouse lighting and conveinence receptacles	$55,000.00		Layout of fenced-in storage area - to be provided by ATARA
14	**Roof Screen**	Includes design, furnish and install roof screen around roof top units, as required by City of Thousand Oaks	TBD		For future roof top equipment, as needed. Scope to be clarified and priced at later date.
15	**Biosafety Cabinets (BSCs)**	By Atara	$0.00		Atara-direct scope
16	**DGA Furniture Design Costs**	Includes Furniture design	$11,300.00		Per conversation with Andy Reinach and Andrew Acuri on March 1st
17	**Locker Niche Next to UPS**	Scope includes installation of locker cove in Suite 5 hallway. Lockers by Atara	$15,000.00		
		TOTAL	**$896,840.00**	**See Above**	
		20% Construction Contingency	$179,368.00		
		13.35% GC Mark-Ups (4% Fee, 2.35% Insurance, 7% GCs)	$157,023.77		
		10% Design Fees	$89,684.00		
		Schedule Acceleration Allowance	$100,000.00		
		GRAND TOTAL	**$1,422,915.77**	**7/27/2021 for Suite#1 only**	
				9/1/2021 for Suite#2, 3, 4	

EXHIBIT D TO LEASE

ACKNOWLEDGMENT OF COMMENCEMENT DATE

This **ACKNOWLEDGMENT OF COMMENCEMENT DATE** is made this _____ day of _____, ____, between **ARE-LA REGION NO. 2, LLC**, a Delaware limited liability company (" **Landlord**"), and **ATARA BIOTHERAPEUTICS, INC.** , a Delaware corporation (" **Tenant**"), and is attached to and made a part of the Lease dated _____, _____ (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

Landlord and Tenant hereby acknowledge and agree, for all purposes of the Lease, that the Commencement Date of the Base Term of the Lease is _____, _____, the Suite 1 Commencement Date is _____, _____, the Suite 1 Rent Commencement Date is _____, _____, the Suites 2-4 Commencement Date is _____, _____, the Suites 2-4 Rent Commencement Date is _____, _____, the Suite 5 Commencement Date is _____, _____, the Suite 5 Rent Commencement Date is _____, _____, and the termination date of the Base Term of the Lease shall be midnight on _____, _____. In case of a conflict between the terms of the Lease and the terms of this Acknowledgment of Commencement Date, this Acknowledgment of Commencement Date shall control for all purposes.

IN WITNESS WHEREOF, Landlord and Tenant have executed this ACKNOWLEDGMENT OF COMMENCEMENT DATE to be effective on the date first above written.

TENANT:

ATARA BIOTHERAPEUTICS, INC.,
a Delaware corporation

By: _____
Its: _____

LANDLORD:

ARE-LA REGION NO. 2, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

By: _____
Its: _____

EXHIBIT E TO LEASE

Rules and Regulations

1. The sidewalk, entries, and driveways of the Project shall not be obstructed by Tenant, or any Tenant Party, or used by them for any purpose other than ingress and egress to and from the Premises.

2. Tenant shall not place any objects, including antennas, outdoor furniture, etc., in the parking areas, landscaped areas or other areas outside of its Premises, or on the roof of the Project.

3. Except for animals assisting the disabled, no animals shall be allowed in the offices, halls, or corridors in the Project.

4. Tenant shall not disturb the occupants of the Project or adjoining buildings by the use of any radio or musical instrument or by the making of loud or improper noises.

5. If Tenant desires telegraphic, telephonic or other electric connections in the Premises, Landlord or its agent will direct the electrician as to where and how the wires may be introduced; and, without such direction, no boring or cutting of wires will be permitted. Any such installation or connection shall be made at Tenant's expense.

6. Tenant shall not install or operate any steam or gas engine or boiler, or other mechanical apparatus in the Premises, except as specifically approved under the Work Letter or Section 12 of the Lease. Explosives or other articles deemed extra hazardous shall not be brought into the Project.

7. Parking any type of recreational vehicles is specifically prohibited on or about the Project. Except for the overnight parking of operative vehicles, no vehicle of any type shall be stored in the parking areas at any time. In the event that a vehicle is disabled, it shall be removed within 48 hours. There shall be no "For Sale" or other advertising signs on or about any parked vehicle. All vehicles shall be parked in the designated parking areas in conformity with all signs and other markings. All parking will be open parking, and no reserved parking, numbering or lettering of individual spaces will be permitted except as specified by Landlord.

8. Tenant shall maintain the Premises free from rodents, insects and other pests.

9. Landlord reserves the right to exclude or expel from the Project any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs or who shall in any manner do any act in violation of the Rules and Regulations of the Project.

10. Tenant shall not cause any unnecessary labor by reason of Tenant's carelessness or indifference in the preservation of good order and cleanliness. Landlord shall not be responsible to Tenant for any loss of property on the Premises, however occurring, or for any damage done to the effects of Tenant by the janitors or any other employee or person.

11. Tenant shall give Landlord prompt notice of any defects in the water, lawn sprinkler, sewage, gas pipes, electrical lights and fixtures, heating apparatus, or any other service equipment affecting the Premises.

12. Tenant shall not permit storage outside the Premises, including without limitation, outside storage of trucks and other vehicles, or dumping of waste or refuse or permit any harmful materials to be placed in any drainage system or sanitary system in or about the Premises.

13. All moveable trash receptacles provided by the trash disposal firm for the Premises must be kept in the trash enclosure areas, if any, provided for that purpose.

14. No auction, public or private, will be permitted on the Premises or the Project.

15. No awnings shall be placed over the windows in the Premises except with the prior written consent of Landlord.

16. The Premises shall not be used for lodging, sleeping or cooking or for any immoral or illegal purposes or for any purpose other than that specified in the Lease. No gaming devices shall be operated in the Premises.

17. Tenant shall ascertain from Landlord the maximum amount of electrical current which can safely be used in the Premises, taking into account the capacity of the electrical wiring in the Project and the Premises and the needs of other tenants, and shall not use more than such safe capacity. Landlord's consent to the installation of electric equipment shall not relieve Tenant from the obligation not to use more electricity than such safe capacity.

18. Tenant assumes full responsibility for protecting the Premises from theft, robbery and pilferage.

19. Tenant shall not install or operate on the Premises any machinery or mechanical devices of a nature not directly related to Tenant's ordinary use of the Premises and shall keep all such machinery free of vibration, noise and air waves which may be transmitted beyond the Premises.

20. Tenant shall cause any vendors and other service providers hired by Tenant to perform services at the Premises or the Project to maintain in effect workers' compensation insurance as required by Legal Requirements and commercial general liability insurance with coverage amounts reasonably acceptable to Landlord. Tenant shall cause such vendors and service providers to name Landlord and Alexandria Real Estate Equities, Inc. as additional insureds under such policies and shall provide Landlord with certificates of insurance evidencing the required coverages (and showing Landlord and Alexandria Real Estate Equities, Inc. as additional insureds under such policies) prior to the applicable vendor or service provider providing any services to Tenant at the Project.

21. Neither Tenant nor any of the Tenant Parties shall have the right to photograph, videotape, film, digitally record or by any other means record, transmit and/or distribute any images, pictures or videos of all or any portion of the Premises or the Project that could identify the Project or the name of the Project, or that identify Landlord or any other tenants or any affiliates of Landlord or any other tenants without Landlord's prior consent. The foregoing is not meant to prohibit individual employees from taking and disseminating photos of themselves or other people within the Premises or at the Project so long as neither the Building nor any proprietary information, equipment or improvements of Landlord are included within such photos.

EXHIBIT F TO LEASE

TENANT'S PERSONAL PROPERTY

To the extent the following items are solely paid for by Tenant:

- CO2 Tank and vaporizer
- Lab equipment such as BSCs, incubators, and cell counters, freezers, gas cylinders/dewars, chairs
- IT equipment such as servers and networking gear (computers, AV systems, security systems)
- Warehouse equipment such as racks and hazardous materials storage cabinets
- Office furniture, fixtures and chairs (excluding built-in units)
- Pilot plant equipment (BSCs, incubators, etc.)
- Laboratory supplies
- Breakroom amenities not provided by ARE (refrigerators, microwaves, etc.)

EXHIBIT G TO LEASE

NOTIFICATION OF THE PRESENCE OF ASBESTOS CONTAINING MATERIALS

This notification provides certain information about asbestos within or about the Premises at 1280 Rancho Conejo Blvd., Thousand Oaks, CA ("Building") in accordance with California Code of Regulations, title 8, section 1529 and Section 25915 et. seq. of the California Health and Safety Code.

Historically, asbestos was commonly used in building products used in the construction of buildings across the country. *Asbestos*-containing building products were used because they are fire-resistant and provide good noise and temperature insulation. Because of their prevalence, asbestos-containing materials, or ACMs, are still sometimes found in buildings today.

According to a historical environmental site assessment report, an asbestos survey of the 1280 Building conducted in 2006 identified approximately 400-square feet of gray and black patching mastic on the roof was identified as ACM. Based on the available information and the date of construction for the Building, as well as the absence of an asbestos abatement report, it is likely that ACMs are present in some building materials at the site.

Because ACMs are present and may continue to be present within or about the Building, we have hired an independent environmental consulting firm to prepare an operations and maintenance program ("O&M Program"). The O&M Program is designed to minimize the potential of any harmful asbestos exposure to any person within or about the Building. The O&M Program includes a description of work methods to be taken in order to maintain any ACMs or PACMs within or about the Building in good condition and to prevent any significant disturbance of such ACMs or PACMs. Appropriate personnel receive regular periodic training on how to properly administer the O&M Program.

The O&M Program describes the risks associated with asbestos exposure and how to prevent such exposure through appropriate work practices. ACMs and PACMs generally are not thought to be a threat to human health unless asbestos fibers are released into the air and inhaled. This does not typically occur unless (1) the ACMs are in a deteriorating condition, or (2) the ACMs have been significantly disturbed (such as through abrasive cleaning, or maintenance or renovation activities). If inhaled, asbestos fibers can accumulate in the lungs and, as exposure increases, the risk of disease (such as asbestosis or cancer) increases. However, measures to minimize exposure, and consequently minimize the accumulation of asbestos fibers, reduce the risks of adverse health effects.

The O&M Program describes a number of activities that should be avoided in order to prevent a release of asbestos fibers. In particular, you should be aware that some of the activities which may present a health risk include moving, drilling, boring, or otherwise disturbing ACMs. Consequently, such activities should not be attempted by any person not qualified to handle ACMs.

The O&M Program is available for review during regular business hours at the Landlord's office at 26 North Euclid Avenue, Pasadena, CA 91101.

EXHIBIT H TO LEASE

ENVIRONMENTAL REPORTS

Phase 1 Environmental Site Assessment prepared by Ramboll US Corporation dated August 2019.

Limited Bulk Sampling for Asbestos Report prepared by American Environmental Group, Inc. dated June 17, 2020.

Exhibit 10.3

[***] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL, AND IS THE TYPE THAT THE REGISTRANT TREATS AS PRIVATE OR CONFIDENTIAL.

FIRST AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT

for MSK's technology

EBV specific T-cells

TABLE OF CONTENTS

EXCLUSIVE LICENSE AGREEMENT

THIS FIRST AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT (the **"First Restated Agreement"**), entered into on March 22, 2021 (**"Execution Date"**), is by and between **Memorial Sloan Kettering Cancer Center** (**"MSK"**), a New York not-for-profit corporation with principal offices at 1275 York Avenue, New York, NY 10065, and **Atara Biotherapeutics, Inc.** (**"Licensee"**), a corporation with offices at 611 Gateway Blvd, Suite 900, South San Francisco, CA 94080. MSK and Licensee are sometimes referred to singly as **"Party"** and collectively as **"Parties."**

WITNESSETH

WHEREAS, MSK owns certain Licensed Rights (as later defined herein) and desires to have the Licensed Rights utilized in the public interest;

WHEREAS, Licensee and MSK previously entered into that certain Exclusive Option Agreement, dated September 19, 2014, as amended effective June 12, 2015 (the **"Option Agreement"**), under which (*inter alia*) MSK granted Licensee the exclusive option (the **"Option"**) to obtain exclusive license rights to the Licensed Rights and possibly to obtain from MSK supply of certain products covered by such license rights, pursuant to the terms of this Agreement;

WHEREAS, Licensee has exercised the Option and thus obtains the exclusive license to the Licensed Rights to commercially develop and commercialize the Licensed Rights through a commercially reasonable, diligent program of exploiting the Licensed Rights whereby public utilization shall result therefrom;

WHEREAS, MSK is willing to grant such license to Licensee, and to supply such products, on the terms and conditions that follow;

WHEREAS, Licensee and MSK are Parties to that certain Exclusive License Agreement (the **"Original Exclusive License Agreement"**) entered into on June 12, 2015 (the **"Original Effective Date"**), which was amended (the **"Amendment No. 1 to the Original Exclusive License Agreement"**) on August 30, 2018 (the **"Amendment No. 1 Effective Date"**), and now the Parties desire to amend and restate the Original Exclusive License Agreement, as amended on August 30, 2018, in its entirety to, among other things, [***], all as set forth in this First Restated Agreement; and

WHEREAS, Licensee and MSK are Parties to that certain Agreement Regarding IND Transfer entered into on May 2, 2019, which the Parties intend to terminate through execution of this First Restated Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the Parties hereto agree as fol1ows:

ARTICLE 1 - DEFINITIONS

For the purpose of this Agreement, the following capitalized words and phrases shall have the following meanings:

1.1 **"Additional Antigens"** has the meaning ascribed to such term in the Option Agreement.

1.2 **"Affiliate"** means, with respect to a Party, any person, firm, corporation, or other entity controlling, controlled by, or under common control with such Party hereto. The term "controlling" as used in this definition (with correlative meanings for the terms "controlled by" and "under common control with") means that the applicable person, firm, corporation or other entity has the actual ability (directly or indirectly) to direct and control the management and business of the applicable Party, whether through ownership, directly or indirectly, of more than fifty percent (50%) of the voting capital, or the ability to effect the election of a majority of the directors, or by contract or otherwise. In any jurisdiction where 50% control is not permitted by applicable law, the "greater than 50%" threshold shall be deemed satisfied by the possession of substantially the maximum percentage allowable in such jurisdiction. With regard to MSK, **"Affiliate"** shall include Sloan Kettering Institute for Cancer Research and the Memorial Hospital for Cancer and Allied Diseases.

1.3 **"Ancillary Agreement"** means each of the Option Agreement, the Manufacturing Services Agreement, the Data Services Agreement or any clinical trial agreement or investigator sponsored trial agreement between the Parties with respect to a Licensed Product.

1.4 **"Agreement"** means the Original Exclusive License Agreement as in effect from the Original Effective Date until the Execution Date, together with this First Restated Agreement, which, pursuant to Section 19.7, replaces the Original Exclusive License Agreement as of the Execution Date.

1.4a [***].

1.5 **"Combination Product"** means a finished pharmaceutical product that comprises a Licensed Product and further comprises one or more other active pharmaceutical ingredients (that is, drug substances, and excluding, for clarity, excipients, formulation ingredients, adjuvants, delivery devices, and the like).

1.6 **"Commercially Reasonable Efforts"** means, with respect to particular obligations or tasks, such level of efforts applied to carry out such obligations or tasks consistent with the efforts used in the biopharmaceutical industry by a company of comparable size in connection with the development or commercialization of biopharmaceutical products that are of similar status, to accomplish such obligations or tasks, at the same stage of development or commercialization, as applicable, for internally developed healthcare products in a similar area with similar market potential, at a similar stage of their product life taking into account the existence of third party (not Licensee's own) competitive products in the market place or under development, the proprietary position of the product, the regulatory structure involved, the anticipated profitability of the product and other commercially-relevant factors. It is understood that such factors may change from time to time based upon changing scientific, business and marketing and return on investment considerations and that the level of efforts typically devoted by Licensee may also change, based on such changes and/or changes in development or commercial stage.

1.7 **"Confidential Information"** means, with respect to a Party, all confidential or proprietary information disclosed by such Party to the other Party in connection with this Agreement, which may include methods or manufacture or use, formulations, clinical data, test results, and research and development plans, whether in oral, graphic, electronic, or any other media or form.

1.8 **"Contract Quarter-Year"** means any of the three month periods ending on March 31, June 30, September 30 and December 31 of each calendar year.

1.9 **"Database"** means any database or other similar collection of data in MSK's possession that correlates or links, for the donors of cells in the Library, HLA typing (and other similar blood type data or analysis) with the cell type and the donor of the cells in MSK's possession at any time during the term of this Agreement; *provided that* [***] and [***] and [***].

1.10 **"EBV Product"** means (a) any EBV-specific T-cells or cell line that are part of the Library, together with (b) such additional EBV-specific T-cells or cell lines that were or may be developed during the term of the Option Agreement or this Agreement in the laboratory [***] or otherwise pursuant to plans approved by the PRC or the Steering Committee (but for clarity not including any Excluded Products), [***].

1.11 **"Excluded IP"** means: (a) inventions or discoveries [***], together with and patents and patent applications claiming inventions [***], that are (i) [***], but only so long as [***], or (ii) [***], but only so long as [***] or [***]; and (b) the patents and applications listed on Exhibit D hereto. MSK covenants and warrants that the Database, Library, and EBV Products are not within the **"Excluded IP."**

1.12 **"Excluded Products"** means all [***] products (a) [***], or (b) that are [***]. MSK covenants and warrants that the EBV Products are not within the **"Excluded Products."**

1.13 **"Field of Use"** means all therapeutic, prophylactic, diagnostic and other healthcare-related uses (including research and development in the field of healthcare).

1.14 **"Follow-On Product"** means any product developed under a Sponsored Research Program (as contemplated in Section 2.10 of the Option Agreement) conducted by MSK under Licensee funding pursuant to Section 2.10(b) or 2.10(c) of the Option Agreement, for which Licensee exercised its option under such Section.

1.15 **"Library"** means the collection of T-cells and cell lines, including "donor" T-cell lines, created, isolated or developed at MSK in the laboratory [***], as existing on the Original Effective Date, including all such cells or cell lines identified in Exhibit A of this Agreement, and including all additions, augmentations or modifications made to the foregoing collection.

1.16 **"Licensed Know-How"** means all know-how, inventions (whether or not patentable), data, results, protocols, regulatory filings, assays and other information (including the [***]) relating to or useful for making, propagating, improving, maintaining and/or using the Licensed Products and/or the Library, that are owned or controlled by MSK at any time during the Term of this Agreement, including the Databases, and including the information generally described in the applicable section of Exhibit A of this Agreement.

1.17 **"Licensed Patent Rights"** means:

(a) The patents and applications (if any) listed on Exhibit C of this Agreement (including any patent applications added to Exhibit C pursuant to Section 7.1);

(b) U.S. and ex-U.S. patents that issue from or claim priority to any applications in (a), but not including claims in continuation-in-part applications or patents except to the extent provided in (c) below;

(c) Claims in continuation-in-part applications or patents described in (b) above to the extent that such claims are entitled to priority to patents or patent applications in (a);

(d) Any reissues or re-examinations of patents described in (a), (b), or (c) above; and

(e) Any ex-US applications and patents that are equivalent to any of the foregoing.

Excluded from Licensed Patent Rights is all Excluded IP.

1.18 **"Licensed Product"** means:

(a) any T-cell product that (i) is specific to EBV, and (ii) made, used, imported, offered for sale, sold, reproduced, performed, displayed, distributed, or otherwise utilized by or on behalf of Licensee, or its sublicensees, that comprises, is based on or is made using Licensed Rights, including any such product that is an EBV Product and/or Follow-On Product;

(b) a [***];

(c) an [***]; or

(d) any product that (i) [***]; (ii) [***]; (iii) [***]; and (iv) [***]. For clarity, [***].

In each case, (a) through (d), Licensed Products shall not include Excluded Products.

1.19 **"Licensed Rights"** means the Licensed Patent Rights, the Licensed Tangible Materials and the Licensed Know-How (or any part of any of the foregoing).

1.20 **"Licensed Tangible Materials"** means: the Library; all improvements, additions or modifications thereto made by or on behalf of MSK during the term of this Agreement pursuant to activities conducted in accordance with this Agreement, the Option Agreement or the Manufacturing Services Agreements; and all materials (including those generally described in the Licensed Tangible Materials section of Exhibit A of this Agreement) used in sourcing, preparing, creating, or improving or maintaining the Library [***].

1.21 **"Net Sales"** means the gross price billed or invoiced on sales of Licensed Products by Licensee, its Affiliates, or Sublicensees during the applicable Royalty Term(s), less:

(a) Freight and shipping expenses (actual), including insurance, to the extent billed to the customer;

(b) Cash, trade, volume, and prompt payment discounts actually granted and deducted solely on account of sales of Licensed Products;

(c) Rebates actually paid to individual or group purchasers of Licensed Products that are solely on account of the purchase of such Licensed Products;

(d) credits, reserves or allowances granted for (i) damaged, outdated, returned, rejected, withdrawn or recalled Licensed Product, (ii) wastage replacement and short-shipments; (iii) billing errors and (iv) indigent patient and similar programs (e.g., price capitation);

(e) Taxes (including sales, value added, consumption and similar taxes), duties and other governmental charges actually incurred, paid or collected and remitted to the relevant tax or other authority for the sale, export, import, transfer or use of Licensed Products;

(f) government-mandated rebates and price reductions, and chargebacks, rebates or fees granted to governmental healthcare organizations, purchasing groups, wholesalers, distributors, selling agents (excluding any sales representatives of a selling party), group purchasing organizations, Third Party payors, other contractees and managed care entities;

(g) retroactive price reductions actually granted to the Third Party applicable to sales of the product; and

(h) [***], with respect to the sale of the Licensed Product, based [***] of the [***] during the applicable period.

To the extent that Licensed Product [***], including [***] then in calculating Net Sales for the sale of such Licensed Product, [***] such Licensed Product [***] may be [***].

Sales of Licensed Product(s) between or among Licensee and its Affiliates and Sublicensees shall be excluded from the computation of Net Sales and no payments shall be payable on such sales, except where such Affiliates or Sublicensees are the end users of the Licensed Product sold.

If Licensee or its Affiliate or Sublicensee [***] and [***], then [***] Licensee shall [***] and [***] (taking into account [***] or [***], with the understanding that [***]). If [***], the Affiliate or Sublicensee [***]. Such [***] (it being understood that [***] for purposes of this Agreement), [***], [***].

1.22 **"Patent Expenses"** means all actual out-of-pocket expenses (such as outside counsel fees and patent filing fees) incurred by MSK in the prosecution, filing, and maintenance hereunder of Licensed Patent Rights (including any oppositions, re-examinations, and other similar proceedings), but *excluding* for clarity any internal costs of MSK (such as research costs, overhead or internal patent costs).

1.23 **"PRC"** means the PRC committee under the Option Agreement.

1.24 **"Restricted Know-How"** means Licensed Know-How that (a) is important to the making, propagating, improving, maintaining and/or using any Licensed Product and/or the Library, and (b) is not generally applicable and useful (in a substantial manner) for other research or development activities not involving the Library or Licensed Products.

1.25 **"Royalty Term"** means, (i) in the case of a particular Licensed Product [***], on a Licensed Product-by-Licensed Product basis and country-by-country basis, the period from the Original Effective Date to the later of: (a) expiration of the last Licensed Patent Rights embracing such Licensed Product; (b) expiration of any market exclusivity period granted by law with respect to such Licensed Product; or (c) [***] from the date of first commercial sale of the Licensed Product in the applicable country; or (ii) in the case of an [***], [***] from the Execution Date.

1.26 **"Royalty Year"** means each twelve (12) month period commencing January 1 and ending December 31 during the term of this Agreement, *except that* for the first calendar year of this Agreement, the Royalty Year shall be the period of time between the Original Effective Date and the next following December 31.

1.27 **"Steering Committee"** means the committee of that name formed by the Parties under Section 2.8 of this Agreement.

1.28 **"Sublicensee"** means any person or business entity to which Licensee has granted a sublicense of the Licensed Rights.

1.29 **"Sublicense Income"** means all consideration (e.g., upfront fees, milestone payments, and other similar license fees) received by Licensee from a Sublicensee based on the grant to such Sublicensee of a sublicense under the license rights granted to Licensee under this Agreement, *but excluding*: (a) royalty payments; (b) payments made at fully-burdened cost to fund prospectively research and development costs and expenses for Licensed Products; (c) *bona fide* loans; (d) payments to purchase capital stock of Licensee at fair market value; and (e) transfer price payments for the purchase of Licensed Product supplied by Licensee (or its Affiliate) made at prices in compliance with the rules of applicable tax authorities.

1.30 **"Term"** shall mean the term of this Agreement, which will be the period as defined in Section 17.1.

1.31 **"Territory"** shall mean worldwide.

1.32 **Additional Definitions.** Each of the following definitions is set forth in the section of this Agreement indicated below:

Agreement	1.14
Claim	11.1
Competitive Program	2.3
Costs	11.1
Data Services Agreement	2.7(b)
EMA	4.l(a)
FMV Fraction	1.21
Institution lndemnitee	11.1
IP Committee	7.1
Licensee	Preamble
Manufacturing Services Agreement	9.3
MSK	Preamble
[***]	1.18
Option	Recitals
Option Agreement	Recitals
Original Products	17.4(c)
Party and Parties	Preamble
Patent Adversarial Actions	8.2(a)
Payment Dispute	17.3
PHI	1.9
Summary Plan	4.l(c)

1.33 **"EMA"** means the European Medicines Agency or any successor entity thereto.

1.34 **"FDA"** means the U.S. Food and Drug Administration or any successor entity.

1.35 **"Initiation"** means, with respect to a clinical study, the first dosing of the first human subject in such clinical study.

1.36 [***]

1.37 **"**[***] **Patent Rights"** means:

(a) [***];

(b) [***];

(c) [***];

(d) [***]; and

(e) Any ex-US applications and patents that are equivalent to any of the foregoing.

1.38 [***]

1.39 **"Phase 1 Study"** means that portion of the drug development and review process which provides for the initial introduction of an investigational new drug into humans in any country that would satisfy the requirements of 21 C.F.R 312.21(a) (FDCA), as amended from time to time, and the ex-US national equivalent thereof.

1.40 **"Pivotal Clinical Trial"** means a human clinical trial of a product on a sufficient number of subjects that, prior to commencement of the trial, satisfies both of the following ((a) and (b)):

(a) such trial is designed to establish that such product has an acceptable safety and efficacy profile for its intended use, and to determine warnings, precautions, and adverse reactions that are associated with such product in the dosage range to be prescribed, which trial is intended to support Regulatory Approval of such product, or a similar clinical study prescribed by the FDA or EMA; and

(b) such trial is a registration trial sufficient for filing an application for a Regulatory Approval for such product in the U.S. or another country or some or all of an extra-national territory, as evidenced by (i) an agreement with or statement from the FDA or the EMA on a Special Protocol Assessment or equivalent, or (ii) other guidance or minutes issued by the FDA or EMA, for such registration trial.

1.41 **"Regulatory Approval"** means, with respect to a country in the Territory, any and all approvals, licenses, registrations or authorizations of any Regulatory Authority necessary to commercially distribute, sell or market a Licensed Product in such country, including, where applicable, (a) pricing or reimbursement approval in such country, (b) pre- and post-approval marketing authorizations and (c) labeling approval.

1.42 **"Regulatory Authority"** means any applicable supra-national, federal, national, regional, state, provincial or local regulatory agencies, departments, bureaus, commissions,

councils or other government entities regulating or otherwise exercising authority with respect to the Exploitation of Licensed Products in the Territory, including the FDA and the EMA.

1.43 **"Special Protocol Assessment"** means the procedures adopted by the United States Center for Drug Evaluation and Research and the Center for Biologics Evaluation and Research for evaluating issues related to the adequacy of certain proposed studies associated with the development of products in human drug applications as defined in section 735(1) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 379g(1)) for products covered by the Prescription Drug User Fee Act of 1992, as further described in section 119(a) of the Food and Drug Administration Modernization Act.

ARTICLE 2 - GRANT; KNOW HOW TRANSFER

2.1 License Grant. Subject to the terms of this Agreement, MSK hereby grants to Licensee:

(i) the exclusive license to use and practice the Licensed Rights in the Territory in the Field of Use to research, develop, make, use, sell, offer for sale, and import Licensed Products [***], together with the right to sublicense as provided in Article 3.

(ii) the non-exclusive license to use and practice the Licensed Know-How in the Territory in the Field of Use to research, develop, make, use, sell, offer for sale, and import [***], together with the right to sublicense as provided in Article 3.

Licensee shall not use the Licensed Rights for any other purpose, except no restriction is imposed on Licensee's use of any portion of Licensed Rights that are in the public domain, or that become part of the public domain without fault of Licensee.

2.2 Limitations. With respect to Licensed Products other than [***], Licensee shall not during the term of this Agreement [***], provided that Licensee may [***] or [***] or [***]. MSK shall not during the term of this Agreement [***] developed at MSK by or in the laboratory [***], or [***], and without the prior written consent of Licensee shall not provide any confidential or proprietary Licensed Tangible Materials or Restricted Know-How to any third party or otherwise encumber the Licensed Tangible Materials or Restricted Know-How, provided that MSK may do so (i) [***] only[***] (without [***] except [***]), or as otherwise approved in writing by Licensee, such consent not to be unreasonably withheld, and (ii) [***] that are either [***] or are approved [***]. For clarity, [***].

For the [***] following the Execution Date, Licensee and its Affiliates shall not [***], or [***], or [***], provided that [***], or [***].

2.3 Other T-Cell Products. If MSK becomes aware, at any time during the term of the Agreement up to the [***] , of any [***] that are [***] and [***] (such as [***], but only to the extent [***] or [***], or [***], and that become available for licensing or are appropriate for being supported by a sponsored research program (each, a **"Competitive Program"**), MSK agrees to notify Licensee of the Competitive Program and shall provide reasonably detailed information about the technology. For any such technology that is available for licensing, Licensee then will have an exclusive [***] period from such notice and delivery of information during which it will have the right to elect to exercise an exclusive right of first negotiation for an exclusive license to such Competitive Program. If Licensee elects to obtain such license, MSK and Licensee shall negotiate exclusively and in good faith for [***] to seek to reach agreement on

the terms of such license agreement for such Competitive Program. If at the end of such negotiation period the Parties have not reached agreement, then MSK may negotiate with other parties, and MSK may grant such license to a third party *provided that*, [***]. For any such technology that is available for sponsored funding as an MSK internal research program under a sponsored research agreement, Licensee then will have an exclusive [***] period from such notice and delivery of information and of a *bona fide* firm proposal by MSK for scope of the research and the budget to be supported, during which Licensee will have the exclusive right to enter into a sponsored research agreement to cover funding of such research program and an option to license the results thereof. If Licensee elects to enter into such a sponsored research agreement, MSK and Licensee shall negotiate in good faith for [***] to seek to reach agreement on the terms of such agreement for such Competitive Program, and if at the end of such negotiation period the Parties have not reached agreement then Licensee's option to enter into such sponsored research agreement shall terminate.

2.4 Reserved Rights. Notwithstanding anything in this Agreement to the contrary, MSK shall have the right to use the Licensed Rights for (i) [***], (ii) [***], provided that [***], or [***], that is [***], (iii) [***], as provided below, and (iv) [***], and [***], and provided that [***] as provided below. MSK shall also have the right to (v) [***] as provided below, and (vi) [***], solely pursuant to a Material Transfer Agreement in the form agreed to by Licensee. For clarity, MSK, [***], shall not use or practice, and shall not have any right to use or practice, or permit any Third Party to use or practice, any Licensed Rights [***], except as expressly permitted by Licensee in writing in advance [***] and in accordance with applicable law and regulations. However, Licensee acknowledges that [***] and shall [***] that are [***] under this Agreement. Licensee further agrees that [***], and will [***], or [***].

2.5 U.S. Government Rights. All rights granted herein are subject to rights of the United States pursuant to 35 U.S.C. § 200 *et seq.*, and implementing regulations and agreements.

2.6 No Implied Rights: Excluded Patents. MSK reserves all its rights not expressly granted in the Agreement. The licenses granted hereunder shall not be construed to confer any rights upon Licensee by implication, estoppel or otherwise, and it is understood that practice of the full scope of the Licensed Rights may not be possible absent the grant of a license to patents not included in the Licensed Rights. Without limiting the generality of the foregoing, no rights are granted with respect to patents and applications that are part of the Excluded IP.

2.7 Know How and Materials Transfer Maintenance. (a) Promptly after the Original Effective Date, and from time to time thereafter (as reasonably requested by Licensee), MSK shall provide to Licensee samples of and disclose all Licensed Tangible Materials and Licensed Know-How to Licensee, including reasonable quantities of all separate cells or cell lines in the Library and all Databases, to the extent such materials or information have not been previously disclosed and transferred by MSK to Licensee pursuant to the Option Agreement, and including new materials added to the Library or additions to the Licensed Tangible Materials. MSK agrees to provide reasonable support and consultation regarding such transfer to support Licensee's research, development and manufacture of Licensed Products [***] and its maintenance of the Library. Licensee can request a reasonable amount of formal meetings during the term of this Agreement, on a reasonable schedule and format that is mutually agreeable to MSK investigators and Licensee, to provide Licensee with information necessary or useful for it to carry out its obligations and/or exercise its rights under this Agreement and to determine whether to elect to manufacture Licensed Products [***]. In addition, MSK agrees that MSK investigators will make

themselves reasonably available for additional telephone discussions regarding the Licensed Tangible Materials and Licensed Know-How, including the use, manufacture, and maintenance thereof. Further, promptly after the Original Effective Date, MSK and Licensee shall amend and update Exhibit A to reflect all additions, enhancements, amendments and modifications to the Licensed Tangible Materials and the Licensed Know-How that have occurred since the date of the Option Agreement.

(b) The Parties are contemporaneously entering into (i) a Data Services Agreement [***], [***] and [***] as provided therein (**"Data Services Agreement"**), and (ii) the Manufacturing Services Agreement (defined in Section 9.3 below), which provides for, among other things, [***] as provided therein.

2.8 Steering Committee. The Parties hereby established the Steering Committee, comprised initially of the members of the PRC under the Option Agreement at the time of Licensee's exercise of the Option. Each Party may replace its members on the Steering Committee, as appropriate to conduct the activities of the Steering Committee to support the goals of this Agreement, but with the intention that the Steering Committee have continuity with the prior activities and knowledge and experience of the PRC. The Parties agree that the Steering Committee will meet by telephone conference (or in person if the Parties agree) [***], or as otherwise [***]. The Steering Committee shall be responsible for: (a) overseeing and managing [***], and [***] and [***]; (b) overseeing and discussing [***], in each case [***]; (c) discussing [***], including [***]; (d) reviewing and overseeing [***]; (e) discussing and [***]; and (f) any other duties or authority that the Parties agree in writing to add to the Steering Committee's purview. The Steering Committee also will [***] as specified by the Steering Committee. The Steering Committee will seek in good faith and acting reasonably to reach consensus on all matters before it. For clarity, Licensee (and its Affiliates and Sublicensees, as applicable) retain the sole rights to make all decisions regarding their own research, development, and commercialization of Licensed Products (but not to authorize any breach or violation of this Agreement).

2.9 Transfer of INDs; Regulatory Matters; Clinical Activities.

(a) Transfer of INDs; Regulatory Matters. On or before June 15, 2015, MSK has transferred (or cause the transfer) of MSK [***] to Licensee and granted Licensee the right to reference any other INDs held by MSK for Licensed Product as of the Original Effective Date. Upon the written request of Licensee from time to time after the Original Effective Date, MSK will also transfer (or cause the transfer) to Licensee of each other IND held by MSK (or foreign equivalents) for any Licensed Product as of the Original Effective Date in any country. MSK shall execute and deliver all documents and instruments, and take all such actions, as needed to affect each of the transfers described above, including appropriate communications with the FDA and other regulatory authorities, including as requested by Licensee. Further, MSK shall provide to Licensee, at its request, all reasonable regulatory assistance with respect to such transferred INDs (and equivalents) and the regulatory activities of Licensee relating to development of Licensed Products ([***]). Upon Licensee's request, MSK will provide Licensee and/or its designee with copies of all regulatory documentation and correspondence relating to the Licensed Products and will cooperate with Licensee and its designees, and take all such actions that are reasonably requested to remove PHI from such regulatory documentation and correspondence. Licensee covenants and agrees that if this Agreement is terminated early pursuant to Article 17, Licensee shall transfer back to MSK the INDs (and foreign equivalents) held by MSK that were transferred

by MSK to Licensee pursuant to the above provisions of this Section 2.9(a) promptly after the effective date of termination, and Licensee shall have the same obligations of cooperation and assistance as set forth above with respect to the initial transfer from MSK to Licensee.

(b) Clinical Activities. Licensee will use Commercially Reasonable Efforts to continue or support the continuation of, the clinical activities of, or on behalf of, MSK or its Affiliate with respect to any Licensed Product that are ongoing as of the Original Effective Date. The Parties agree that clinical study protocols #95-024 and 11-130 under [***] will be conducted by MSK pursuant to the Clinical Trial Agreement(s) entered into by the Parties concurrently with this Agreement. All data and results of all clinical trials on Licensed Products conducted by or on behalf of MSK or its Affiliate at any time prior to or during the Term are included in the Licensed Tangible Materials and Licensed Know-How and are licensed exclusively to Licensee under this Agreement.

(c) Additional Regulatory Matters. Licensee shall upon request from MSK transfer or assign to MSK any applications for Regulatory Approval, listed in Exhibit G, held by Licensee or its Affiliates as of the Execution Date from anywhere in the world [***]. Licensee will cooperate with MSK to assure transfer is provided without loss of applicable rights to the greatest extent permitted under applicable law, and will not withdraw, abandon, or permit such applications to lapse prior to December 31, 2021, absent written consent from MSK. MSK shall reimburse Licensee for all out-of-pocket costs and expenses incurred by Licensee at MSK's request for the transfer or assignment of any application for Regulatory Approval pursuant to this Section 2.9(c).

2.10 Covenant Not to Sue. Each of MSK, its Affiliates, and their respective successors, sublicensees, and assignees covenant not to sue Licensee , its successors, and assignees, for infringement or misappropriation of the Licensed Tangible Materials or Licensed Know-How provided by MSK to Licensee prior to the Execution Date based on or relating to the development or commercialization of any Licensed Product [***]. This covenant extends to Licensee's Affiliates, sublicensees, and customers with respect to such products to the extent that they are acting under a grant of rights from Licensee under this Agreement (or additionally in the case of customers, to the extent they distribute, possess or use such products). In the event MSK or its Affiliates sells, licenses, grants rights, transfers or assigns this Agreement (or any portion hereof), the Licensed Tangible Materials or the Licensed Know-How, in each case solely as permitted by this Agreement, to a Third Party, this Section 2.10 shall be deemed to automatically extend to such Third Party and its Affiliates.

ARTICLE 3 - SUBLICENSES

3.1 Licensee and its Affiliates may grant through multiple tiers (and may amend such sublicenses) provided that each such sublicense is consistent with and subject to the terms and conditions of this Agreement. For sublicenses covering Licensed Products [***], Licensee shall provide MSK with a complete copy of each such sublicense agreement (or amendment) and any associated agreements between it (or its Affiliate) and the Sublicensee, or between an existing Sublicensee and its subsequent Sublicensee, *provided that* such agreement or amendment may be redacted to remove confidential information that does not relate to Licensed Product or Licensed Rights. Licensee shall also promptly provide MSK with full executed copies of such agreements. All such documents shall be deemed Confidential Information of Licensee.

3.2 Licensee shall remain responsible for performance of all its obligations under this Agreement, notwithstanding the grant of any sublicense. It is agreed that such obligations may be satisfied by the performance by one or more Sublicensees. Any sublicense for Licensed Products shall by its terms require that the Sublicensee comply with the provisions of this Agreement that by their terms are required to be performed by a Sublicensee, including the restrictions, limitations, and obligations of Articles 11, 13, and 14 and Sections 6.1 and 7.6, and shall provide that MSK is a third-party beneficiary with respect to such Articles and Sections. Any breach by a Sublicensee shall be considered a breach by Licensee, *provided that* MSK shall not have the right to terminate the licenses and other rights provided to Licensee under this Agreement with respect to a specific Licensed Product pursuant to Section 17.4 for an uncured breach by Sublicensee if (i) such breach was not made at the direction of, or with the approval of, Licensee, (ii) [***], and (iii) Licensee promptly terminates the sublicense after the end of the applicable cure period.

3.3 Licensee shall promptly provide MSK with a copy of any notice of breach, termination, or the like sent to or received from a Sublicensee, with respect to the applicable sublicense agreement hereunder, for any sublicense covering a Licensed Product other than [***].

ARTICLE 4 - DILIGENCE

4.1 (a)Licensee shall use its Commercially Reasonable Efforts to (i) [***], and (ii) thereafter [***], *provided that*, [***].

Without limiting the foregoing, Licensee shall meet the following milestone activities:

(i) use Commercially Reasonable Efforts to [***]; provided that (x) if [***], then the [***], using such Commercially Reasonable Efforts, [***], and (y) if [***], then this milestone will be deemed to have been achieved;

(ii) use Commercially Reasonable Efforts [***]; provided that [***], then the [***], using such Commercially Reasonable Efforts, [***], but not for more [***];

(iii) if [***], then Licensee will use Commercially Reasonable Efforts to [***]; provided that [***], then the [***], using such Commercially Reasonable Efforts, [***], but not for more than [***].

(b) Licensee shall give MSK written notice and evidence within [***] of the achievement of each of the above specific diligence milestones.

(c) Licensee shall provide to MSK, within [***] of the Original Effective Date, a reasonable summary business plan (the **"Summary Plan"**) for the development of the Licensed

Rights, including, for example, [***]. Thereafter, Licensee shall provide update reports to MSK [***] to relay update and status information on Licensee's business, research and development progress with respect to development of Licensed Product(s), including projections of activity anticipated [***], generally in accordance with the topic listed in the template provided in Exhibit B of this Agreement.

(d) Licensee shall be solely responsible, at its sole cost and expense, for securing any necessary governmental or regulatory approvals for development, manufacture, and sale of Licensed Products, and shall use Commercially Reasonable Efforts to obtain such approvals. Licensee shall advise MSK, [***], of its program of development for obtaining said approvals.

4.2 If Licensee is the subject of a demand, notice, inquiry, or inspection report by a governmental authority or certification agency in relation to any Licensed Product that (i) by its terms directs or contemplates, or may reasonably be expected to require or relate to, suspension or cessation of manufacturing, sale, development, or marketing of Licensed Products efforts, (ii) concerns a recall or potential recall of Licensed Products, (iii) concerns a loss of life or material issue of safety, or (iv) may reasonably be expected to prevent Licensee's compliance with its diligence obligations, then Licensee shall provide a copy to MSK without delay and keep MSK reasonably apprised of its response.

ARTICLE 5 - PAYMENTS

5.1 In consideration for the rights, privileges and licenses granted hereunder, Licensee shall pay to MSK in the manner hereinafter provided:

(a) License Fees: Licensee has paid to MSK a license issue fee of Four Million Five Hundred Thousand US Dollars ($4,500,000), due within thirty (30) days after the Original Effective Date. Such fee shall be nonrefundable and non-creditable against any other obligations hereunder. In partial consideration of the license rights and covenant provided to Licensee by MSK herein in this First Restated Agreement, Licensee agrees to pay MSK [***] US dollars (the “Upfront License and Covenant Fee”) within [***] of receipt of an associated invoice from MSK. MSK is to invoice Licensee for the Upfront License and Covenant Fee concurrently with, or shortly after, execution of this First Restated Agreement on the Execution Date.

(b) Running royalties: For sales of Licensed Products [***] occurring in each country during the Royalty Term for the applicable country and product, Licensee shall pay to MSK a royalty in an amount equal to [***].

If Licensee obtains a license under patent rights of a third party that Licensee, on the advice of patent counsel, determines, in the absence of a license thereunder, would be considered to be infringed by the development, manufacture, use, sale, offer for sale, or importation of a Licensed Product [***], provided that [***].

For sales of Licensed Products [***] during the Royalty Term [***], Licensee shall pay to MSK a royalty in an amount equal [***]. For clarity, [***].

For sales of Licensed Products [***]during the Royalty Term [***], Licensee shall pay to MSK a royalty in an amount equal [***]. For clarity, [***].

For clarity, upon expiration of the Royalty Term for a Licensed Product being sold in a country, subsequent sales of such Licensed Product in such country shall be royalty free and shall

not contribute to the calculation of "Net Sales" for purposes of the above royalty obligation, and thereafter the license granted under Section 2.1 as to such Licensed Product in such country shall be fully paid, perpetual and irrevocable.

(c) Guaranteed minimum royalties: Licensee shall pay to MSK minimum annual royalties of [***] until [***]; provided that for as long as Licensee [***], such obligation to pay such minimum annual royalties shall not be applicable. Each such minimum annual royalties payment shall be creditable against earned royalties for the same annual period actually owed by Licensee to MSK under Section 5.1(b) based on sales during such period after such payment. For clarity, [***].

(d) Milestones:

Milestone payments as follows:

(i) The following milestone payments shall be due for a Licensed Product [***] for the first indication only. For clarity, only one set of milestone payments will be payable for a Licensed Product that is an EBV Product:

(A) [***];

(B) [***]; and

(C) [***].

For clarity, each above milestone payment shall be made only once with respect to any Licensed Product that is an EBV Product.

(ii) The following milestone payments shall be due for a [***] for the first indication only. For clarity, only one set of milestone payments will be payable for a [***] that is an EBV Product:

(A) [***];

(B) [***];

(C) [***];

(D) [***];

(E) [***];

(F) [***];

(G) [***];

(H) [***]; and

(I) [***].

For clarity, (1) each above milestone payments shall be made only once with respect to any [***] that is an EBV Product, and (2) in no event will a [***] for which milestones are payable under this Section 5.1(d)(ii) also be considered a Licensed Product for the purposes of Section 5.1(d)(i).

(iii) The following milestone payments shall be due for a [***] if [***] of the Execution Date:

(A) [***];

(B) [***]; and

(C) [***].

For clarity, (1) for each of the above milestone events, payments shall be made only if [***] from the Execution Date, and no milestone payments are due to MSK for any such milestone events [***] from the Execution Date, and (2) in no event will a [***] for which milestones are payable under this Section 5.1(d)(iii) also be considered a Licensed Product for the purposes of Section 5.1(d)(i) or Section 5.1(d)(ii).

(e) Sublicensing Income:

Licensee shall pay to MSK a portion of Sublicense Income received in consideration of any sublicense granted by Licensee of the license rights granted under Section 2.1(i) of this Agreement, other than sublicenses executed in the ordinary course of business, as follows:

(i) [***] of the Sublicense Income from a sublicense [***]:

(ii) [***] of the Sublicense Income from a sublicense [***]; provided, however, [***].

For clarity, [***].

For clarity, [***].

(f) **Avoidance of Double Royalties and Milestones**. Licensee will not be obligated to pay royalties to MSK on any given [***] under both this Agreement and [***], nor shall Licensee be obligated to make milestone payments for the same milestone event for a given [***] under both this Agreement and the [***]. If a [***] for which a royalty is owed to MSK under this Agreement is also by the terms of the [***] royalty bearing under the [***], Licensee shall be required to pay to MSK the [***] (i) the royalty due to MSK under this Agreement, or (ii) the royalty due to MSK under the [***]. Upon payment of the [***] (i) or (ii) under the relevant agreement, the corresponding royalty under the other agreement shall be deemed to have been paid. Similarly, if a milestone event triggers a milestone payment under both this Agreement and under the [***], Licensee shall be required to pay MSK the [***] milestone payment, and upon such payment the [***] milestone payment shall be deemed to have been paid.

5.2 Payment Terms: Payments owed under this Agreement shall be payable [***] after they are due (except as provided below for royalties), paid in United States dollars in New York, NY, or at such other place as MSK may reasonably designate consistent with the laws and regulations controlling in any foreign country and provided that such designation does not impose additional costs, fees or payment obligations on Licensee. Royalty payments are due [***] after the end of the Contract Quarter-Year during which such royalty obligations accrued. If any currency conversion shall be required in connection with the payment of royalties hereunder, such conversion shall be made by using the exchange rate prevailing at the JP Morgan Chase Bank on the last business day of the Contract Quarter-Year reporting period to which such royalty payments relate.

Additionally, in the event of a dispute concerning the determination of royalties or milestones, or whether royalties or milestones are owed, that arises from disagreement over whether a T-cell product sold by or on behalf of Licensee qualifies as a Licensed Product, the Parties shall agree on a reasonable procedure for the provision of necessary technical information in confidence to a qualified representative of MSK to attempt to resolve such dispute.

5.3 Interest: Licensee shall pay to MSK interest on any amounts not paid when due at the rate established by the New York CPLR for prejudgment interest in the case of breach of contract.

5.4 Tax withholding: Payments shall be made in full, without deduction or withholding for wire transfer fees or currency exchange fees. The Parties will cooperate to prevent or minimize the need for any withholding, and at the request of Licensee, MSK will provide Licensee with documents evidencing its tax status in the United States. Any withholding or other tax that is required by law to be withheld with respect to payments owed by Licensee shall be deducted by Licensee from such payment prior to remittance and paid over to the relevant taxing authorities when due. Licensee shall promptly furnish MSK evidence of any such taxes withheld and of payment thereof, and MSK shall seek to obtain the release of any such withheld amounts from the taxing authority. At MSK's request, Licensee shall provide MSK with reasonable assistance to release the withheld amount to MSK. If [***], then [***] ([***]).

ARTICLE 6 - REPORTS AND RECORDS

6.1 Licensee shall keep, and shall require its Affiliates and Sublicensees to keep, full, true, and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to MSK hereunder. Said books and records shall include the data and information maintained by the applicable party, which may include: Invoice registers and original invoices, product sales analysis reports, accounting general ledgers, sub-license and distributor agreements, price lists, contracts for the sale of Licensed Products, product catalogs and marketing materials, audited financial statements (as to Licensed Product sales), inventory and production records, and shipping documents. Said books and records shall be maintained for a period of no less than [***] following the period to which they pertain. Such records shall include original data files used to prepare the submitted royalty reports. For the term of this Agreement, and at least annually, MSK or its agents shall have the right upon reasonable written notice to inspect such books and records for the purpose of verifying Licensee's royalty statement or other payments under this Agreement. Such inspections shall be during normal working hours of Licensee, on reasonable prior notice and shall not occur more than once for any particular royalty period, or more than once per year. Should such inspection lead to the discovery of a discrepancy in MSK's favor of greater than [***] of the total payments made during the audited period, or [***], in reporting to MSK's detriment, for any [***] period, Licensee shall pay the reasonable cost of such audit, plus interest on the discrepancy as provided for late payments.

6.2 Commercialization Reports:

Commencing upon first commercial sale of a Licensed Product, Licensee, within [***] of the end of each Contract Quarter-Year thereafter, shall deliver to MSK a summary report (which shall be, to Licensee's knowledge at the time, true and accurate), giving the following particulars of the Licensed Product business conducted by Licensee and its Sublicensees during such Contract Quarter-Year, to be itemized per Licensed Product by country of sales origin:

(a) Product number

(b) Units sold

(c) Net Sales based on units sold

(d) Royalty rate applicable

(e) Royalty dollars due

(f) country of sale:

(g) foreign currency conversion rate; and

(h) any Sublicense Income received in the prior quarter.

Licensee shall also provide copies of royalty reports received from its Sublicensees for the corresponding period, to the extent such reports relate to sales of Licensed Products by the Sublicensee. All such information shall be maintained in confidence by MSK.

6.3 With each such report submitted under Section 6.2, Licensee shall pay to MSK the royalties due and payable under this Agreement for such Contract Quarter-Year. If no royalties shall be due, Licensee shall so report.

6.4 Milestone payments shall be reported and paid when due.

ARTICLE 7 - PATENT PROSECUTION; THE LICENSED PATENTS

7.1 Promptly after the Original Effective Date, MSK and Licensee shall form an **"IP Committee,"** [***], each having reasonable experience and expertise in managing intellectual property matters (which may be the representatives in the **"IP Committee"** formed under the Option Agreement). The IP Committee shall be responsible for discussing and establishing the patent prosecution strategy for the Licensed Patent Rights including any additional patent applications covering any potentially patentable inventions within the Licensed Tangible Materials and/or Licensed Know-How, and for reviewing and managing the prosecution of any Licensed Patent Rights including such additional patent applications that are determined by the IP Committee to be filed covering any such inventions. Promptly after the Original Effective Date, Licensee shall add to Exhibit C of this Agreement all Licensed Patent Rights existing as of the Original Effective Date hereof, and each additional Licensed Patent Right filed by MSK hereunder (including filed as continuing applications based on the further prosecution of such Licensed Patent Rights) shall be listed by the Parties on Exhibit C of this Agreement, and the Parties shall update such Exhibit C list to reflect all additional Licensed Patent Rights filed or issued, and updates in the prosecution thereof.

7.2 MSK shall undertake, at Licensee's expense (as provided below) and using Commercially Reasonable Efforts, and as directed by the IP Committee, to prosecute and maintain the Licensed Patent Rights owned solely by MSK in the United States and in such countries as are determined by MSK upon consultation with Licensee, using counsel of MSK's choice reasonably acceptable to Licensee. Licensee shall reimburse MSK for the actual Patent Expenses incurred in such prosecution and maintenance of the Licensed Patent Rights, pursuant to invoices showing the actual Patent Expenses incurred which shall include copies of the documentation demonstrating the out-of-pocket expenses. If Licensee advises that it does not wish to pursue or maintain a patent or application, MSK may continue to prosecute and maintain it at its own expense, and such patent or application shall be excluded from the license granted hereunder if MSK does so. However, the same item of Patent Expenses that is reimbursable under more than one of (a) this Agreement, (b) that certain [***], and (c) the [***], shall be reimbursed by Licensee to MSK [***], as follows: (i) reimbursement of applicable Patent Expenses will first be made under the [***] if applicable, (ii) if not reimbursed under the foregoing (a), under the [***], if applicable, and (iii) if not reimbursed under the foregoing (a) or (b), under this Agreement, if applicable, unless Licensee advises that it does not wish to pursue or maintain such patent or application under this Agreement, in which case MSK may continue to prosecute and maintain it at its own expense, and such patent or application shall be excluded from the license granted hereunder.

7.3 MSK shall keep Licensee reasonably informed of the progress of its prosecution efforts, by providing Licensee with copies of all material patent prosecution documentation so that Licensee may be informed and advise MSK on the continuing prosecution, and MSK agrees to consider in good faith all such reasonable comments. Licensee shall keep this documentation confidential.

7.4 Licensee shall, at Licensee's expense and using Commercially Reasonable Efforts, and as directed by the IP Committee, to prosecute and maintain the Licensed Patent Rights owned jointly by Licensee and MSK, in the United States and in such countries as are determined by Licensee upon consultation with the IP Committee, using counsel of Licensee's choice. If Licensee advises that it does not wish to pursue or maintain a patent or application in such joint Licensed Patent Rights, MSK may continue to prosecute and maintain it at its own expense, and such patent or application shall be excluded from the license granted hereunder if MSK does so, *provided that* Licensee will retain its ownership interests therein. Licensee shall control, at its sole discretion, prosecution of any patents covering inventions owned solely by Licensee.

7.5 The Parties agree that they share a common legal interest in obtaining valid, enforceable patents and that Licensee, and MSK will maintain confidential all information received pursuant to this Article 7.

7.6 Licensee shall not challenge the validity or enforceability of any claim within the Licensed Patents Rights and shall cause its Affiliates to refrain from doing so. In addition to all other rights and remedies available to MSK for any breach of this provision by Licensee or its Affiliates, in the event that any such challenge is not successful then Licensee shall reimburse MSK for all costs and expenses, including but limited to attorney's fees, incurred by MSK as a result of defending against such challenge.

ARTICLE 8 - INFRINGEMENT

8.1 Monitoring. Licensee shall use commercially reasonable efforts to monitor third party infringement of the Licensed Patent Rights in the Field of Use. Licensee shall keep MSK timely informed of any activities by Licensee in regard hereto.

8.2 Actions. This Section sets forth each of the Party's right of enforcement and defense in relation to the Licensed Patent Rights.

(a) First Right. Licensee shall have the first right, but not the obligation, for the initiation, defense, and management of any adversarial legal proceeding relating to the Licensed Patent Rights in the Field of Use and Territory, including without limitation any declaratory judgment action, patent infringement action or opposition (collectively, **"Patent Adversarial Actions"**) during the Term, and will be responsible for all expenses related thereto. MSK shall provide Licensee with all reasonable assistance and cooperation in conducting and/or defending against any such Patent Adversarial Action, including joining in any such Patent Adversarial Action, at Licensee's request and expense, provided that in any case Licensee shall at all times have the full control of conducting and/or defending such Patent Adversarial Action. For clarity, Licensee may delegate the foregoing rights to its Sublicensee, in the territory where such Sublicensee has sublicense rights hereunder.

(b) Secondary Right. If Licensee determines, as to any particular third party activity that constitutes a material infringement of the Licensed Patent Rights or a declaratory judgment action involving the Licensed Patent Rights, that Licensee shall not exercise its rights to conduct a Patent Adversarial Action as to such activity, then Licensee shall provide MSK with written notice that Licensee declines such right as to such activity, and after receiving such notice, MSK shall have the secondary right to undertake such infringement action or defend against such challenge, provided that MSK shall keep Licensee fully informed of all its activities with respect thereto and shall not take any action, or omit to take any action or position, that causes or likely will cause a material adverse impact on Licensee or its Sublicensee or on the Licensed Patent Rights.

8.3 Cooperation; Settlement. To the extent that a Party conducts any legal proceedings in relation to the enforcement or defense of Licensed Patent Rights in the Field of Use and Territory as contemplated above, it shall keep the other Party reasonably informed of such proceedings. At such Party's request, the other Party shall reasonably cooperate, at the expense of the requesting Party, in such proceedings. In any action conducted by MSK, Licensee will join as may be requested by MSK, and in any action conducted by Licensee, Licensee may affect joinder of MSK if MSK is an indispensable or necessary party under the applicable law. Notwithstanding anything in this Agreement to the contrary, no settlement, consent judgment, or other voluntary final disposition of any action by Licensee that admits the invalidity or unenforceability of the Licensed Patent Rights may be entered into without the prior written consent of MSK.

8.4 Costs and Recoveries. All costs of any action by a Party to enforce, or to defend against a challenge to, the Licensed Patent Rights shall be borne by such Party, and such Party shall keep any sums recovered or obtained in connection therewith (whether as damages, reasonable royalties, license fees, or otherwise in judgment or settlement derived therefrom), except that in the case of actions commenced by Licensee, the excess of such sums over all such costs and expenses shall be treated as Net Sales subject to MSK's rights under this Agreement to collect royalties thereon. For the avoidance of doubt, Licensee may not deduct, from Net Sales

any portion of Licensee's costs or expenses related to any investigation, enforcement, defense, judgment or settlement of any such actions, provided that if Licensee is the enforcing Party, it may deduct from Net Sales the costs and expenses of MSK, incurred in connection with MSK providing cooperation in such enforcement, that are reimbursed or paid by Licensee pursuant to Section 8.3.

8.5 Third Party Patents. In the event Licensee is sued for patent infringement or threatened with such suit, it shall promptly notify MSK. In any such action, Licensee shall be fully responsible for all its costs, including expenses, judgements, and settlements (but subject to Section 5.l(b)).

ARTICLE 9 - MANUFACTURE AND SUPPLY

9.1 [Intentionally omitted].

9.2 Manufacturing Transfer. Commencing on [***], MSK will conduct and complete a full manufacturing transfer to Licensee (and/or its designated contract manufacturing organization(s)) of all existing MSK technology and manufacturing know-how and methods and materials relating to Licensed Product manufacturing, such technology transfer to be conducted on a reasonable, diligent time frame so as to enable completion of the transfer promptly and on a timely basis (taking into account Licensee's product development schedule and needs). In connection therewith, MSK agrees to make reasonably available its personnel to assist Licensee with transfer of manufacturing operations to a new facility, including assistance with understanding all the transferred technology and manufacturing information, at no FTE expense to the Licensee. For clarity, the assistance to be provided by MSK does not include transferring equipment but does include full transfer of all manufacturing SOPs and the identity of the and source of the equipment used in MSK's manufacturing of Licensed Products.

9.3 Licensed Product Supply. The terms of the Parties' agreement governing MSK's manufacture and supply of Licensed Products to Licensee of its (and its Affiliates' and Sublicensees') requirements for Licensed Products for use in clinical trials during development, are set forth in the Manufacturing Services Agreement entered into by the Parties concurrent with this Agreement (**"Manufacturing Services Agreement"**).

9.4 Library. The terms of the Parties' agreement governing the maintenance, improvement and augmentation of the Library and Databases, and the transfer of the Library and Databases to Licensee and its designee(s), are set forth in the Manufacturing Services Agreement.

ARTICLE 10 - CONFIDENTIALITY

Each Party agrees that Confidential Information of the other Party disclosed to it or to its employees under this Agreement shall for [***] after the end of the Term:

(a) be used only in connection with the legitimate purposes of, including exercise by such Party of its rights under, this Agreement:

(b) be disclosed only to those who have a need to know it in connection with the Agreement; and

(c) be safeguarded with the same care normally afforded confidential information in the possession, custody or control of the party holding the Confidential Information but no less than reasonable;

(d) not be disclosed, divulged, or otherwise communicated except with the express written consent of the disclosing Party, or as otherwise expressly permitted in this Agreement.

The foregoing shall not apply with respect to particular Confidential Information that:

(i) can be demonstrated to have been in the public domain prior to the date of the disclosure; or

(ii) enters the public domain through no fault of the receiving Party; or

(iii) was already known to the receiving Party at the time of disclosure as evidenced by written records in the possession of the receiving Party prior to such time; or

(iv) is subsequently received by the receiving Party from a third party without breaching any confidential obligation between the third party and the disclosing Party; or

(v) was independently developed, as established by tangible evidence, by the receiving Party without reference to the Confidential Information of the disclosing Party.

Notwithstanding the foregoing, a receiving Party may disclose particular Confidential Information of the disclosing Party to the extent such information is required to be disclosed in order to comply with court orders, statutes or regulations, provided that prior to any such disclosure, to the extent reasonably practicable, the Party from whom disclosure is sought shall promptly notify the other Party and shall afford such other party the opportunity to challenge or otherwise lawfully seek limits upon such disclosure of Confidential Information, and that the disclosing Party only discloses such Confidential Information as is legally required to be disclosed, taking into account any protective or other order limiting or quashing the disclosure obligation.

Further, notwithstanding the foregoing, Licensee (or its Affiliate or Sublicensee) may disclose Confidential Information of MSK: (a) as reasonably needed to prosecute or enforce Licensed Patent Rights; (b) to regulatory authorities as reasonably needed to develop and/or obtain or maintain regulatory approvals of Licensed Products; (c) in confidence to its Affiliates and Sublicensees as reasonably needed to research, develop and/or commercialize Licensed Products; (d) in confidence to prospective sublicensee, strategic partners, merger partners or acquirers, and their respective professional advisors, in connection with evaluation and/or negotiation of possible sublicense, corporate partnering, merger, asset purchase or other similar transactions; (e) as required in order to comply with applicable law or regulations, including securities laws and securities exchange requirements; (t) in confidence to its existing investors and professional advisors and to potential investors and their professional advisors; and (g) as reasonably needed to conduct or defend any litigation relating to this Agreement, the Licensed Products or Licensee's rights hereunder.

ARTICLE 11- INDEMNIFICATION, PRODUCT LIABILITY

11.l Licensee shall indemnify, defend and hold harmless MSK and its trustees, directors, officers, medical and professional staff, employees, students, and agents and their respective successors, heirs, and assigns (each an **"Institution Indemnitee"**), against all costs, liabilities and expenses (including legal expenses and reasonable attorney's fees) (**"Costs"**) resulting directly from a third party claim, proceeding, or demand against an Institution Indemnitee (a **"Claim"**) to the extent arising directly out of: (a) the death of or injury to any

person or persons, or any damage to property, resulting from the development or commercialization of a Licensed Product by Licensee or its Affiliate or Sublicensee under this Agreement; (b) production, manufacture, sale, use, lease, consumption, or advertisement of Licensed Products hereunder by Licensee or its Affiliate or Sublicensee, or (c) the breach by Licensee of any of its representations, warranties or obligations under this Agreement or any Ancillary Agreement, provided however, that Licensee will not be obligated to indemnify, defend and hold harmless any Institution Indemnitee against any Cost or Claim to the extent it arises out of, results from, or is increased by (w) MSK's or an Institution Indemnitee's breach of its representations or warranties under this Agreement or the Manufacturing Services Agreement, (x) MSK's or an Institution Indemnitee's willful misconduct or gross negligence, or (y) MSK's supplying to Licensee a Licensed Product manufactured by (or on behalf of) MSK that does not conform to the specifications therefor or to FDA manufacturing requirements or guidance, or has otherwise not been manufactured in accordance with the requirements of the Manufacturing Services Agreement), or (z) any clinical trials conducted by, or other use of any Licensed Product by, MSK or its Affiliate at any time, other than under authority of Licensee.

11.2 The Institution Indemnitee will promptly give notice to Licensee of any covered Claims for which it seeks indemnification hereunder, and Licensee will have the right to defend the same, including selection of counsel reasonably acceptable to MSK, and to control of all the proceedings; *provided that* Licensee will not, without the written consent of the Institution Indemnitee, settle such Claim or consent to the entry of any judgment to the extent that such settlement or judgment: (i) does not release the Institution Indemnitee from all liability with respect to such third party Claim, or (ii) likely will materially adversely affect the Institution Indemnitee or under which the Institution Indemnitee would incur any material obligation or liability. MSK and each applicable Institution Indemnitee agrees to cooperate and provide all reasonable assistance to the defense of any such Claim, at Licensee's expense. MSK at all times reserves the right to select and retain counsel of its own at its own expense to defend MSK's interests, *provided* that MSK shall be responsible for any Costs incurred or resulting from any actions of such counsel that are contrary to Licensee's control or conduct of the defense.

11.3 Licensee shall obtain and carry in full force and effect general liability insurance in amounts reasonably consistent with industry standards in regard to potential liability, conduct, and events covered by Section 11.1 above. Such insurance shall be written by a reputable insurance company, and shall be endorsed to include liability coverage. The limits of such insurance shall not be less than [***] per occurrence with an annual aggregate of [***]. Licensee shall provide MSK with Certificates of Insurance evidencing the same and provide MSK with prior written notice of any material change in or cancellation of such insurance.

ARTICLE 12 - REPRESENTATIONS, WARRANTIES AND DISCLAIMERS

12.1 Representations and Warranties of Licensee.

(a) Licensee hereby represents and warrants to MSK that as of the Original Effective Date, to its knowledge, the execution and performance of Licensee's obligations under this Agreement does not conflict with, cause a default under, or violate any existing contractual obligation that may be owed by Licensee to any third party.

(b) Licensee hereby represents and warrants to MSK that it is a corporation duly organized, validly existing and in good standing and has all requisite corporate power and authority to execute and deliver this Agreement.

(c) Licensee hereby represents and warrants to MSK that as of the Execution Date, neither Licensee nor its Affiliates contemplates licensing from any other party [***].

(d) Licensee hereby represents and warrants to MSK that as of the Execution Date, other than the Regulatory Approvals listed in Exhibit G, neither Licensee nor its Affiliates has applied for any Regulatory Approvals [***].

(e) Licensee hereby represents and warrants to MSK that Licensee and its Affiliates have returned to MSK or destroyed all tangible physical materials that would have been Licensed Rights under the Original Exclusive License Agreement, but are no longer Licensed Rights under the Amended and Restated Agreement, including [***] ("Excluded Rights").

12.2 Representations and Warranties of MSK.

(a) MSK hereby represents and warrants to Licensee that, as of the Original Effective Date, to the best of MSK's knowledge, the execution and performance of MSK's obligations under this Agreement do not conflict with, cause a default under, or violate any existing contractual obligation that may be owed by MSK to any third party.

(b) MSK hereby represents and warrants to Licensee that it is a corporation duly organized, validly existing and in good standing and has all requisite corporate power and authority to execute and deliver this Agreement, and that it has the lawful right to grant the license and other rights granted to Licensee in the License Agreement.

(c) MSK hereby represents and warrants to Licensee that: (i) [***]; (ii) [***]; (iii) the [***] in this Agreement, [***].

(d) MSK hereby represents and warrants to Licensee that all clinical trials of Licensed Products containing or based on cells in the Library and conducted by or on behalf of MSK have been conducted pursuant to standard forms of informed consent.

(e) MSK hereby represents and warrants to Licensee that its manufacturing of all cells and cell lines used in clinical trials (through the Original Effective Date) has been, and will continue to be under this Agreement (to the extent such cells or cell lines are supplied to Licensee, or to itself or third parties on Licensee's behalf hereunder), in accordance with governing protocols, methods and procedures as required by the FDA for MSK's manufacturing of Licensed Product for use in clinical trials.

(f) MSK hereby represents and warrants to Licensee that, as of the Original Effective Date, (i) [***], (ii) [***]; (iii) [***]; (iv) [***]; (v) [***]; (vi) [***] (1) [***]; or (2) [***]; and (vii) [***].

12.3 Disclaimer of Warranties.

OTHER THAN THE WARRANTIES SET FORTH IN SECTION 12.2, MSK MAKES NO OTHER REPRESENTATIONS AND EXTENDS NO OTHER WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NO LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF PATENT RIGHTS, ISSUED OR PENDING, OR THAT THE LICENSED PRODUCTS OR RIGHTS GRANTED DO NOT INFRINGE THE PATENT RIGHTS OF OTHERS. ANY AND ALL SUCH WARRANTIES ARE HEAR BY DISCLAIMED.

12.4 Limitation of Damages.

IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, INCIDENTAL, OR PUNITIVE DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, INCLUDING BUT NOT LIMITED TO LOST PROFITS, FROM ITS PERFORMANCE OR NONPERFORMANCE OF ITS OBLIGATIONS UNDER THIS AGREEMENT.

12.5 Covenants of Licensee

(a) To the extent Licensee or its Affiliates has retained any Excluded Rights, Licensee and its Affiliates shall make no use of the Excluded Rights.

(b) Licensee and its Affiliates shall not use the Licensed Rights to research, develop, make, use, sell, offer for sale, or import [***].

ARTICLE 13 - COMPLIANCE WITH LAW

13.1 It is understood that MSK is subject to United States laws and regulations controlling the export of technical data, computer software, laboratory prototypes and other commodities (including the Arms Export Control Act, as amended and the Export Administration Act of 1979), and that its obligations hereunder are contingent on compliance with applicable United States export laws and regulations. The transfer of certain technical data and commodities may require a license from the cognizant agency of the United States Government and/or written assurances by Licensee that Licensee shall not export data or commodities to certain foreign countries without prior approval of such agency. MSK neither represents that a license shall not be required nor that, if required, it shall be issued.

13.2 Licensee shall in all respects conduct its activities under this Agreement, and shall cause its Affiliates, and shall use reasonable efforts to cause its Sublicensees, to conduct their activities under this Agreement, in full compliance with all applicable laws and regulations. Without limiting the generality of the foregoing, Licensee shall use Commercially Reasonable Efforts to cause Licensed Products to be manufactured in all material respects in accordance with applicable federal, state and local laws, rules and regulations, including, without limitation, in all material respects in accordance with all applicable rules and regulations of the FDA.

13.3 With the exception of [***], Licensee shall to the extent required by law substantially manufacture in the United States any Licensed Product if such product is to be sold in the United States, except if an exception to such requirement is obtained.

13.4 To the extent required by law, or if the failure to mark would reduce the rights of MSK or Licensee to enforce the Licensed Patent Rights against infringers, Licensee shall mark, and shall cause its Affiliates and Sublicensees to mark, any Licensed Products with the appropriate Licensed Patent Rights.

ARTICLE 14 - NON-USE OF MSK'S NAME

Licensee shall not use the names of MSK, including Memorial Sloan Kettering Cancer Center, Sloan Kettering Institute for Cancer Research, and Memorial Hospital for Cancer and Allied Diseases, nor any of their employees, nor any adaptation thereof, in any public announcements, publicity or advertising without prior written consent obtained from MSK in each case, except as otherwise expressly permitted in this Agreement. MSK agrees that Licensee may

issue a press release regarding this Agreement in the form attached as Exhibit E. In acknowledgement that Licensee may need to use the name of MSK or the MSK investigators in furtherance of the Licensee's efforts to obtain financing, in connection with strategic or licensing discussions, and in other legitimate business matters of the Licensee, MSK agrees that Licensee may disclose in confidence to such parties (and their professional advisors) the terms of this Agreement, and for any additional disclosures regarding MSK or MSK investigators that Licensee requests to make so such parties, MSK shall use good faith efforts to secure prior written consent for such use in a timely manner in line with its business practices following receipt of a written request for such use by Licensee. For clarity, Licensee may request MSK pre-approve documents which make use the name of MSK for use in non-public and/or confidential venues in furtherance of the Licensee's efforts to obtain financing, negotiate licenses, and secure personnel: upon receipt of such written pre-approval, Licensee may use the name of MSK in such non-public and/or confidential venues without prior written consent in each case to the extent such use does not deviate significantly from the pre-approved documents. Notwithstanding the foregoing, Licensee may disclose in confidence that Licensee has the Agreement and license rights granted hereunder from MSK, and the general terms of the Agreement. Further, Licensee shall be free to continue to publish or disclose specific information about MSK or this Agreement that MSK has previously consented, pursuant to the above, may be publicly disclosed by Licensee, but only in the form, manner, and extent of MSK's prior approval. Further, MSK agrees that Licensee may disclose in SEC and other similar regulatory filings the existence and general terms of this Agreement and the names of the parties to the Agreement, and material developments under this Agreement to the extent such disclosures must be made to comply with applicable laws, regulations and/or securities exchange rules.

ARTICLE 15 - PUBLICATION

Licensee recognizes and accepts that under MSK's mission as an academic medical center, MSK and its investigators must have a meaningful right to publish without Licensee's prior approval or editorial control, but subject to reasonable prior review and comment. Subject to the following, MSK reserves the right to publish the scientific findings from research and clinical trials (to the extent permitted by Licensee as provided below) related to Licensed Rights and Licensed Products. Prior to making any proposed publication (e.g., manuscript, abstract or other public disclosure), of data and results relating to the Licensed Tangible Materials and/or Licensed Know-How and/or Licensed Products [***], and/or that contains Confidential Information of Licensee or its Affiliates, MSK will submit the abstract or manuscript to Licensee and to the IP Committee at [***] before public submission or disclosure thereof. The IP Committee shall immediately review such proposed publication or submission to determine if there are any impacts on potentially patentable inventions and shall inform the Parties of its determinations. Licensee shall have the right to review and comment upon the proposed public disclosure in order to protect such Confidential Information and the patentability of any inventions disclosed therein, and may request that certain results, data, or information not be disclosed if such disclosure likely would negatively impact the development or commercialization of any Licensed Product [***], and MSK will reasonably consider all such requests. Further, upon Licensee's request, public disclosure shall be delayed [***] to enable MSK to secure adequate intellectual property protection of any patentable or trade secret subject matter contained therein that would otherwise be negatively affected by the publication. For clarity, publication of clinical data from permitted clinical trials by MSK on Licensed Products shall be pursuant to the terms of the applicable clinical trial agreement, investigator sponsored trial agreement or other agreement with Licensee.

ARTICLE 16 - ASSIGNMENT

A Party may not assign or delegate its rights or obligations under this Agreement or any Ancillary Agreement, or transfer or assign this Agreement or any Ancillary Agreement, without the prior written consent of the other Party, such consent not to be unreasonably withheld, except that (a) Licensee shall have the right to assign any of its rights, delegate any of its obligations, or transfer this Agreement or any Ancillary Agreement without such consent (i) to its Affiliate or (ii) as part of a merger or acquisition, and (b) MSK may without consent of Licensee freely assign all or any portion of the payments due under this Agreement to a Third Party, *provided that* [***]. Any assignment by Licensee shall bind its assignee to all provisions of this Agreement (or the applicable Ancillary Agreement, as the case may be), including without limitation those concerning dispute resolution (choice of law, choice of forum, and consent to jurisdiction in New York). Any assignment, delegation, or transfer by any party without the consent of the other party shall be void and of no effect. For clarity, nothing in the foregoing shall limit Licensee's (or its Affiliate's or Sublicensee's) ability to grant sublicenses or to engage contractors to perform obligations on behalf of any such party.

ARTICLE 17 - TERMINATION

17.1 Term. The term of this Agreement (the **"Term"**) commences on the Original Effective Date and continues until the expiration of all Royalty Terms, or until the earlier termination of the Agreement pursuant to the below termination provisions. Upon expiration of each Licensed Product's associated Royalty Term and payment of all amounts owed thereunder, the license rights granted to Licensee under Section 2.1 for such Licensed Product shall survive as non-exclusive, royalty-free, fully-paid, perpetual, irrevocable licenses.

17.2 Bankruptcy or Cessation/Enjoinder of Business. MSK may terminate this Agreement upon written notice to Licensee if: (a) a petition in bankruptcy is filed against Licensee and is consented to or acquiesced in by Licensee, or remains undismissed for [***]; (b) Licensee makes a general assignment for the benefit of creditors, or a receiver is appointed for Licensee over all or substantially all of Licensee assets, and Licensee does not return to solvency before the expiration of a [***] period; or (c) Licensee ceases to do business.

17.3 Nonpayment. If Licensee fails to pay MSK fees, royalties, ongoing patent expenses or other amounts payable hereunder, and such payments remain past due for more than [***], MSK shall have the right to give Licensee written notice of such past due amount and may terminate this Agreement on a subsequent written notice, unless Licensee pays to MSK within [***] after giving such notice all such past due fees, royalties and patent expenses, except that MSK shall not terminate during the pendency of the following dispute resolution procedures if initiated by Licensee: Licensee shall [***] provide MSK with a written notice of the basis of such dispute and the factual basis for its disputing the payment obligation (such dispute, a **"Payment Dispute"**). The Parties shall promptly engage in nonbinding evaluative mediation in an attempt to resolve the dispute. If the mediation fails to resolve the dispute, the Parties shall request the mediator to provide his written evaluation of the merits of the dispute and either Party then may commence litigation to resolve the dispute, and MSK agrees that [***] and [***]. So long as Licensee [***], MSK shall have no right to terminate the Agreement [***]. If an eventual judicial decision establishes that Licensee did not actually owe MSK, under the terms of the Agreement, [***], then [***]. For clarity, MSK's right to terminate for breach for nonpayment [***] during

the dispute resolution process. For further clarity, and notwithstanding anything in the above, it is agreed by the Parties that Licensee may [***].

17.4 Material Breach.

(a) Subject to Sections 17.5, 17.8, and 17.9, if Licensee materially breaches this Agreement with respect to one or more [***], then MSK may give Licensee written notice specifying in reasonable detail the breach and its intention to terminate the licenses and other rights provided to Licensee under this Agreement solely with respect to [***] if such breach is not timely cured. In the case of such material breach and such notice is given, if Licensee does not cure such breach prior to the expiration of the [***] period after receipt of such notice, then MSK may terminate the licenses and other rights provided to Licensee under the Agreement solely with respect to [***] on written notice, *provided that* (a) if such breach is not curable, then MSK may terminate the licenses and other rights provided to Licensee under the Agreement solely with respect to [***] on written notice, and (b) if such breach is not curable within such [***] period, but is likely curable, using diligent efforts, within [***] such notice, then MSK may not terminate the licenses and other rights provided to Licensee under the Agreement with respect to [***] so long as Licensee is using diligent efforts to cure such breach, and cures the breach prior to the end of such [***] period.

(b) Subject to Sections 17.5, 17.8, and 17.9, if Licensee materially breaches this Agreement with respect to one or more [***], then MSK may give Licensee written notice specifying in reasonable detail the breach and its intention to terminate the licenses and other rights provided to Licensee under this Agreement solely with respect to [***] if such breach is not timely cured. In the case of such material breach and such notice is given, if Licensee does not cure such breach prior to the expiration of the [***] period after receipt of such notice, then MSK may terminate the licenses and other rights provided to Licensee under the Agreement solely with respect to [***] written notice, *provided that* (a) if such breach is not curable, then MSK may terminate the licenses and other rights provided to Licensee under the Agreement solely with respect to [***] immediately on written notice, and (b) if such breach is not curable within such [***] period, but is likely curable, using diligent efforts, within [***] after such notice, then MSK may not terminate the licenses and other rights provided to Licensee under the Agreement with respect to [***] so long as Licensee is using diligent efforts to cure such breach, and cures the breach prior to the end of such [***] period.

(c) Subject to Sections 17.5, 17.8, and 17.9, if Licensee materially breaches this Agreement with respect to one or more Licensed Products [***] (collectively, the **"Original Products"**), then MSK may give Licensee written notice specifying in reasonable detail the breach and its intention to terminate the licenses and other rights provided to Licensee under this Agreement solely with respect to Original Products if such breach is not timely cured. In the case of such material breach and such notice is given, if Licensee does not cure such breach prior to the expiration of the [***] period after receipt of such notice, then MSK may terminate the licenses and other rights provided to Licensee under the Agreement solely with respect to Original Products on written notice, *provided that* (a) if such breach is not curable, then MSK may terminate the licenses and other rights provided to Licensee under the Agreement solely with respect to Original Products [***] written notice, and (b) if such breach is not curable within such [***] period, but is likely curable, using diligent efforts, within [***] after such notice, then MSK may not terminate the licenses and other rights provided to Licensee under the Agreement with

respect to Original Products so long as Licensee is using diligent efforts to cure such breach, and cures the breach prior to the end of such [***] period.

(d) Except in the case of breaches provided for in Sections 17.4(a)-(c) above, which breaches shall be exclusively governed by such Sections 17.4(a)-(c), in addition to any other applicable termination right specified in this Agreement, but subject to Sections 17.5, 17.8, and 17.9, if Licensee materially breaches this Agreement, then MSK may give licensee written notice specifying in reasonable detail the breach and its intention to terminate this Agreement if such breach is not timely cured. In the case of such material breach and such notice is given, if Licensee does not cure such breach prior to the expiration of the [***] period after receipt of such notice, then MSK may terminate the Agreement on written notice, *provided that* (a) if such breach is not curable, then MSK may terminate the Agreement [***] written notice, and (b) if such breach is not curable within [***] period, but is likely curable, using diligent efforts, within [***] after such notice, then MSK may not terminate the Agreement so long as Licensee is using diligent efforts to cure such breach, and cures the breach prior to the end of such [***] period.

17.5 Effect on Sublicensees. All applicable sublicenses, and rights of Affiliates and Sublicensees, will terminate as of the effective date of termination of this Agreement, provided, however, that if at the effective date of termination any Sublicensee is in good standing with regard to its obligations under its sublicense and agrees to assume the applicable obligations of Licensee hereunder (provided that such obligations shall not include economic obligations under Article 5, which shall be replaced by the economic obligations under the sublicense agreement), then, at the request of the Sublicensee, such sublicense shall survive such termination or expiration of this Agreement and be assigned to MSK, and MSK shall accept such assignment; *except that*, in such case the obligations of MSK to Sublicensee shall not exceed the obligations of MSK to Licensee under this Agreement.

17.6 Termination by Licensee. Licensee has the right to terminate this Agreement on written notice to MSK, in the event that [***]. In the event of such termination by Licensee under this Section 17.6, it shall at MSK's request (i) reassign to MSK at no cost all INDs that were assigned by MSK to Licensee under this Agreement or the Option Agreement, and (ii) negotiate reasonably and in good faith for the assignment to MSK or its designee Licensee's regulatory applications, filings, dossiers, and the like for Licensed Products [***], including the business terms for such assignment.

17.7 Discontinuation of use of Applicable Licensed Rights in the Event of Termination.

(a) If the licenses and other rights provided to Licensee under this Agreement solely with respect to [***] are terminated under Section 17.4(a) for uncured material breach by Licensee, all rights of Licensee and its Affiliates to use the Licensed Rights shall terminate solely with respect to [***]; and Licensee and its Affiliates shall make no further use of the Licensed Rights solely with respect to [***] (except that the foregoing shall not apply to any Licensed Rights that are, or thereafter become, in the public domain, other than through the fault of Licensee, its Affiliates, or Sublicensees). However, in the case of termination under Section 17.4(a) with respect to one or more [***] caused by the actions of a Sublicensee to which such one or more [***] are sublicensed, the termination shall be only with respect to such one or more [***].

(b) If the licenses and other rights provided to Licensee under this Agreement solely with respect to a specific [***], are terminated under Section 17.4(b) for uncured material breach

by Licensee, all rights of Licensee and its Affiliates to use the Licensed Rights shall terminate solely with respect to such [***]; and Licensee and its Affiliates shall make no further use of the Licensed Rights solely with respect to such [***] (except that the foregoing shall not apply to any Licensed Rights that are, or thereafter become, in the public domain, other than through the fault of Licensee, its Affiliates, or Sublicensees). However, in the case of termination under Section 17.4(b) with respect to one or more [***] caused by the actions of a Sublicensee to which such one or more [***] are sublicensed, the termination shall be only with respect to such one or more [***].

(c) If the licenses and other rights provided to Licensee under this Agreement with respect to Original Products are terminated under Section 17.4(c) for uncured material breach by Licensee, all rights of Licensee and its Affiliates to use the Licensed Rights or to sell Original Products shall terminate solely with respect to Original Products; and Licensee and its Affiliates shall make no further use of the Licensed Rights solely with respect to Original Products (except that the foregoing shall not apply to any Licensed Rights that are, or thereafter become, in the public domain, other than through the fault of Licensee, its Affiliates, or Sublicensees).

(d) If this Agreement is terminated under Section 17.4(d) for uncured material breach by Licensee, all rights of Licensee and its Affiliates to use the Licensed Rights or, in the case of Original Products, to sell such Original Products, shall terminate; and Licensee and its Affiliates shall make no further use of the Licensed Rights (except that the foregoing shall not apply to any Licensed Rights that are, or thereafter become, in the public domain, other than through the fault of Licensee, its Affiliates, or Sublicensees).

(e) If this Agreement is terminated at Licensee's election pursuant to Section 17.6, all rights of Licensee, its Affiliates, and Sublicensees to use the Licensed Rights or to sell Licensed Products shall terminate; and Licensee, its Affiliates, and Sublicensees shall make no further use of the Licensed Rights (*except that* the foregoing shall not apply to any Licensed Rights that are, or thereafter become, in the public domain, other than through the fault of Licensee, its Affiliates, or Sublicensees).

17.8 Survival. Upon any expiration or termination of this Agreement, the following shall survive:

(a) any provision expressly indicated to survive:

(b) any liability which any Party has already incurred to another Party prior to expiration or termination:

(c) Licensee's reporting and payment obligations for activities occurring prior to expiration or termination, and MSK's audit rights:

(d) in the case of termination by Licensee under Section 17.6, Sections 5.l(b), 5.l(d), and 5.l(e), until all activities by Licensee, its Affiliates, and Sublicensees that would otherwise create an obligation of payment by Licensee under those sections are discontinued, and

(e) Articles 10, 11, 18, and 19, and Sections 7.5 and 12.4.

17.9 MSK's remedies for breach by Licensee of the last sentence of Section 2.1 shall not include any right to terminate this Agreement, but shall otherwise include all remedies and relief as may be available under governing law, including to the extent applicable an award of damages, an injunction against continued breach, equitable relief, and such other remedies as may be available.

ARTICLE 18 - NOTICES AND OTHER COMMUNICATIONS

Except for payments, each notice or other communication pursuant to this Agreement shall be sufficiently made or given when delivered by courier or other means providing proof of delivery to such party at its address below or as it shall designate by written notice given to the other party:

In the case of MSK:	Memorial Sloan Kettering Cancer Center Office of Technology Department
If by mail:	1275 York Ave., Box 524 New York, NY 10065
If by courier:	600 Third Avenue, 16th floor New York, NY 10016 Attn: Vice President, Technology Development
With copies to:	Memorial Sloan Kettering Cancer Center Office of General Counsel
If by mail or courier	1275 York Ave. New York, NY 10065 Attn: General Counsel
In the case of Licensee:	Atara Biotherapeutics, Inc. 611 Gateway Blvd., Suite 900 South San Francisco, CA 94080 Attn: CEO

ARTICLE 19 - MISCELLANEOUS PROVISIONS

19.1 Governing Law. This Agreement shall be construed, governed, interpreted and applied in accordance with the laws of the State of New York, without giving effect to any choice/conflict of law principles, except that questions affecting the construction and effect of any patent shall be determined by the law of the country in which the patent was filed or granted.

19.2 Jurisdiction. The state and federal courts located in New York County, New York, shall have exclusive jurisdiction of any claims or actions between or among the parties arising out of or relating to this Agreement or any aspect of the parties' relationship, and each party consents to venue and personal jurisdiction of those courts for the purpose of resolving any such disputes.

19.3 Severability. Except to the extent a provision is stated to be essential, or otherwise to the contrary, or such provision is material and essential to the main purpose and intent of the Agreement, the provisions of this Agreement are severable, and in the event that any provisions of this Agreement shall be determined to be invalid or unenforceable under any controlling body of the law, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof, *provided that* the Parties will endeavor in good faith to agree on a replacement, valid provision, to add to this Agreement in the stead of such invalid provision, that comes closest to achieving the intent of the Parties in such provision.

19.4 Waiver. The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

19.5 Counterparts. This First Restated Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be an original and all such counterparts shall together constitute but one and the same agreement.

19.6 Force Majeure. A Party shall not lose any rights hereunder or be liable to the other Party for damages or losses (except for payment obligations) on account of a delay or failure of performance by the such party to the extent such the delay or failure is occasioned or caused by war, strike, fire, Act of God, tornado, hurricane, earthquake, fire, flood, lockout, embargo, governmental acts or orders or restrictions (except if imposed due to or resulting from the party's violation of law or regulations), failure of suppliers, or any other circumstance or reason where the delay or failure to perform is beyond the reasonable control of such Party (a **"Force Majeure"**), and *provided that* such failure is not caused by the gross negligence or intentional misconduct of the Party and the Party has exerted reasonable efforts to avoid or remedy the effects of such Force Majeure; However, if a Force Majeure event causes a material failure of performance by a Party for a period of more than six months, then the other Party may terminate this Agreement on written notice. For clarity, a failure to obtain funding shall not constitute a force majeure event.

19.7 Entire Agreement. This Agreement, including its attachments and exhibits (which recitals in this Agreement, attachments and exhibits are incorporated herein by reference), and the Ancillary Agreements, constitute the entire understanding among and between the Parties with respect to the subject matter hereof, and supersede all prior agreements and communications, whether written, oral or otherwise. This Agreement may only be modified or supplemented in a writing expressly stated for such purpose and signed by the Parties to this Agreement.

19.8 Relationship between the Parties. The relationship between the parties under this Agreement is that of independent contractors. Nothing contained in this Agreement shall be construed to create a partnership, joint venture, or agency relationship between any of the parties. No party is a legal representative of any other party, and no party can assume or create any obligation, liability, representation, warranty, or guarantee, express or implied, on behalf of another party for any purpose whatsoever.

19.9 Construction and Interpretation. Words (including defined terms) denoting the singular shall include the plural and vice versa. The words "hereof", "herein'\ "hereunder" and words of the like import when used in this Agreement shall refer to this Agreement as a whole, and not to any particular provision of this Agreement. The term "including" (and any variant thereof), and the giving of examples, shall not be construed as terms of limitation and shall be deemed to mean "including without limitation". The headings in this Agreement shall not affect its interpretation. Except as expressly provided herein, the rights and remedies herein provided shall be cumulative and not exclusive of any other rights or remedies provided by law or otherwise. Each of the parties has had an opportunity to consult with counsel of its choice. Each provision of this Agreement shall be construed without regard to the principle of contra proferentem. If any provision of this Agreement is held to be invalid or unenforceable the validity of the remaining provisions shall not be affected. The parties shall replace the invalid or unenforceable provision by a valid and enforceable provision closest to the intention of the parties when signing this Agreement. This Agreement was negotiated, and shall be construed and interpreted, exclusively in the English language.

[Signature Page Follows]

IN WITNESS WHEREOF, authorized representatives of the Parties have executed this Agreement below.

ATARA BIOTHERAPEUTICS, INC.

By: /s/ [***]
Name: [***]
Title: CEO

MEMORIAL SLOAN KETTERING CANCER CENTER

By: /s/ [***]
Name: [***]
Title: VP, Technology Development

Exhibit A

Licensed Tangible Materials and Licensed Know How

Licensed Tangible Materials.

[***]

Licensed Know-How.

[***]

Exhibit B

Form of Diligence Report

[***]

Exhibit C

Licensed Patent Rights

[***]

Exhibit D

Excluded Patents

[***]

Exhibit E

Form of Press Release

Atara Biotherapeutics Exercises Exclusive License to T-Cell Technology from Memorial Sloan Kettering Cancer Center

Activated T-cell Technology Designed to Harness Immune System to Fight Cancer and Infectious Disease

South San Francisco, Calif., June 15, 2015 - Atara Biotherapeutics, Inc. (Nasdaq: ATRA) today announced that it has exercised its exclusive option with Memorial Sloan Kettering Cancer Center (MSK) to license certain clinical stage, allogeneic T-cell therapies for the treatment of cancers and persistent viral infections. In connection with the exercise of the option, the Atara Bio license agreement with MSK grants Atara Bio exclusive worldwide rights to the following three allogeneic T-cell therapies:

- T-cells activated against Epstein Barr Virus, or EBV (Phase 2):
- T-cells activated against Cytomegalovirus, or CMV (Phase 2); and
- T-cells activated against Wilms Tumor I, or WTI (Phase 1)

These three programs share a common technology, under which third-party donor-derived whole blood is collected and enriched for T lymphocytes, or T-cells. The T-cells are then exposed to certain antigens, and the resulting activated T-cells are characterized and stored for future therapeutic use. Using a proprietary algorithm, patients are treated with a partially human leukocyte antigen, or A, matched cell line, providing an "off-the-shelf," allogeneic, cellular therapeutic option for patients. These T-cell products are intended to work by targeting the abnormal cells expressing the applicable target antigen and killing them.

Atara Bio announced earlier this year that its collaborating investigator at MSK received breakthrough therapy designation from the U.S. Food and Drug Administration for its cytotoxic T lymphocytes (CTL) activated against Epstein-Barr Virus (EBV-CTL) in the treatment of patients with rituximab-refractory, EBV-associated lymphoproliferative disease (EBV-LPD).

Clinical data have been presented as follows:

- EBV-CTL in the treatment of patients with EBV-LPD after solid organ transplantation at the 2015 American Society of Clinical Oncology Annual Meeting.
- EBV-CTL in the treatment of patients with EBV-LPD after allogeneic hematopoietic cell transplantation (HCT) at a Clinical Trial Plenary Session at American Association for Cancer Research Annual Meeting 2015
- CMV-CTL in the treatment of patients with anti-viral resistant CMV after HCT including viremia only and CMV disease at the American Society of Hematology Annual Meeting 2014.

"Licensing these programs more than doubles the clinical stage programs active at Atara Bio and provides a potential platform technology that can be directed at other targets," said Isaac

Ciechanover, MD, Chief Executive Officer and President of Atara Bio. "Our T-cell programs use third party donor cells, and, if approved by regulatory authorities, will be available as "off-the-shelf' therapies for patients in need."

Richard O'Reilly, MD, Chair of the Department of Pediatrics and Chief of the Pediatric Bone Marrow Transplant Service at MSK, notes that "We are delighted that Atara will continue to develop our existing T-cell technologies that have shown promising clinical benefit in patients. We also look forward to expanding the platform to treat patients with other types of cancer through our sponsored research efforts with Atara." Dr. O'Reilly will join Atara Bio's Scientific Advisory Board.

In connection with the exercise of the option and entry into the exclusive license agreement, MSK received an upfront license fee and will be eligible to receive additional payments based on the achievement of certain development, regulatory and sales-related milestones, as well as royalty payments. Atara Bio and MSK have agreed to collaborate on further research to develop additional cellular therapies, which may include T-cell therapies targeted against other antigens and/or chimeric antigen receptor-modified T-cells, known as CAR-T.

About Atara Biotherapeutics, Inc.

Atara Biotherapeutics, Inc. is a biopharmaceutical company focused on developing innovative therapies for patients with debilitating diseases. Atara Bio's programs include molecularly-targeted product candidates and T-cell product candidates. The molecularly-targeted product candidates include PINTA 745, STM 434 and ATA 842, targeting myostatin and activin, members of the TGF-beta family of proteins that have demonstrated the potential to have therapeutic benefit in a number of clinical indications. T-cell product candidates include EBV-CTL, CMV-CTL and WT1-CTL.

Forward-Looking Statements

This press release contains or may imply "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Because such statements deal with future events and are based on Atara Bio's current expectations, they are subject to various risks and uncertainties and actual results, performance or achievements of Atara Bio could differ materially from those described in or implied by the statements in this press release. For example, forward-looking statements include statements regarding the clinical development of product candidates and Atara Bio's collaboration with MSK. These forward-looking statements are subject to other risks and uncertainties, including those discussed under the heading "Risk Factors" in Atara Bio's quarterly report on Form 10-Q for the quarter ended March 31, 2015 and subsequent filings with the Securities and Exchange Commission. Except as otherwise required by law, Atara Bio disclaims any intention or obligation to update or revise any forward-looking statements, which speak only as of the date hereof, whether as a result of new information, future events or circumstances or otherwise.

INVESTOR & MEDIA CONTACT:
Tina Gullotta,
Atara Biotherapeutics, Inc.
650-741-1613
tgullotta@atarabio.com

Exhibit F

Form of Material Transfer Agreement

See attached

AGREEMENT FOR INTER-INSTITUTIONAL TRANSFER OF MATERIAL

Between

ACADEMIC COLLEAGUES

("Agreement")

SK2014-

1. Memorial Sloan Kettering Cancer Center ("MSK") and INSERT NAME ("INSTITUTION") agree that MSK will provide INSTITUTION with [INSERT DESCRIPTION OF MATERIAL] ("MATERIAL"), subject to all the terms of this Agreement.

2. MATERIAL and any related confidential information, including but not limited to, all non-public, confidential or proprietary information that MSK designated or otherwise marked as "Confidential" ("INFORMATION") will be sent by Dr. _____ of MSK ("INVESTIGATOR") to INSTITUTION.

3. INSTITUTION shall use MATERIAL and INFORMATION solely for the following purpose: [INSERT PURPOSE] ("STUDY") as described in Exhibit A. INSTITUTION shall not use or permit the use of the MATERIAL and/or INFORMATION for any use or purpose other than conducting the STUDY.

4. MSK retains exclusive ownership of MATERIAL and INFORMATION and may distribute MATERIAL and INFORMATION to other commercial or non-commercial entities.

5. INSTITUTION will NOT use MATERIAL in humans.

6. INSTITUTION shall not transfer MATERIAL or INFORMATION to any non-INSTITUTION person or entity without prior written consent from MSK.

7. INSTITUTION represents that its use of MATERIAL and INFORMATION will be in compliance with all applicable laws and regulations.

8. INSTITUTION agrees to hold in confidence for a period of three (3) years after receipt, all INFORMATION received from MSK under this Agreement, except for information which:

   a) was lawfully in INSTITUTION's possession or control prior to the date of disclosure as evidenced by written records; or
   b) was in the public domain or enters into the public domain through no improper act on INSTITUTION's part or on the part of any of INSTITUTION's employees;
   c) is rightfully given to INSTITUTION from sources independent of MSK; or
   d) is independently developed by INSTITUTION, as evidenced by written records; or
   e) must be disclosed for minimum lawful compliance with court orders, regulations and statutes.

9. INSTITUTION will report all STUDY results to INVESTIGATOR. MSK and INSTITUTION may use STUDY results for any internal non-commercial research or educational purpose. INSTITUTION may publish such results, *provided that* prior to any submission for such publication, INSTITUTION shall provide the draft publication to MSK at least 60 days prior to the submission, so that MSK may review such publication for any potentially patentable information, and at MSK's request, INSTITUTION will delay such submission for up to 60 days to permit MSK to prepare and file patent applications covering such information. MSK may disclose the STUDY results to its commercial licensee of the MATERIAL, and such licensee may use the results for all its internal business purposes.

If INSTITUTION creates or discovers any inventions or intellectual property relating in any way to the MATERIAL (including improvements or enhancements of or uses of MATERIAL or products based thereon) based on or as a result of conducting the STUDY (the "STUDY IP"), INSTITUTION shall report all such STUDY IP to MSK and provide a detailed description thereof. INSTITUTION grants to MSK a non-exclusive, perpetual, worldwide, royalty-free, fully-paid license under any such STUDY IP for all purposes relating to the MATERIAL and the use, improvement or development thereof (including its products), and MSK may disclose and sublicense (on a non-exclusive basis) such STUDY IP to its commercial licensee of the MATERIAL, for all commercial and business purposes. Further, INSTITUTION agrees that such commercial licensee of the MATERIAL shall have the exclusive option to obtain an exclusive, royalty-bearing license to any such STUDY IP.. Such option shall expire three (3) year months from the date of the disclosure of the STUDY IP to the commercial licensee. If the licensee exercises such option the INSTITUTION shall negotiate in good faith the commercially reasonable terms of an exclusive, worldwide, royalty-bearing, transferable and sublicensable license to the STUDY IP with commercial licensee.

10. INSTITUTION shall not use the name of Memorial Sloan Kettering Cancer Center, Memorial Hospital for Cancer and Allied Diseases or Sloan-Kettering Institute for Cancer Research, or a variant of any of the foregoing in any advertising or publicity matter without the prior written approval of MSK.

11. MATERIAL is being provided by MSK "AS IS" WITHOUT ANY WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. MSK MAKES NO REPRESENTATION THAT THE USE OF THE MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER PROPRIETARY RIGHT.

12. In no event shall MSK be liable for any use by INSTITUTION of MATERIAL or for any loss, claim, damage, or liability, of any kind or nature that may arise from or in connection with this Agreement or the use, handling, or storage of MATERIAL.. INSTITUTION agrees to assume all liability for damages that arise from its use, storage or disposal of MATERIAL, except to the extent such liability is due to MSK's gross negligence or willful misconduct.

13. INSTITUTION will reimburse MSK $_____ for costs associated with shipping MATERIAL..

14. The Agreement will terminate on the earlier of its second (2nd) anniversary or upon thirty (30) days prior written notice of one party to the other, in which case INSTITUTION will discontinue within thirty (30) days its use of MATERIAL.. INSTITUTION agrees, upon direction of INVESTIGATOR, to return or destroy MATERIAL upon termination of this Agreement.

15. This Agreement may not be assigned by INSTITUTION without the prior written consent of MSK..

16. Articles 2, 5, 6, 9 and 11 will survive the termination of this Agreement.

17. An authorized representative of each party must sign this Agreement. The Agreement is effective the date of the last signature below ("Effective Date").

Send/fax/email one fully executed Agreement to:

Office of Technology Development
Memorial Sloan Kettering Cancer Center
1275 York Avenue
New York, NY 10065
Ph: (212) 639-6181
Fax: (212) 717-3439

INSTITUTION	MEMORIAL SLOAN KETTERING CANCER CENTER
By: _____	By: _____
Name: _____	Name: Gregory Riskin, M.D.

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Title: _____ Title: Vice President, Technology Development

Date: _____ Date: _____

INSTITUTION Investigator acknowledges that she/he has read and understood her/this and the INSTITUTION's obligations under this Agreement:

Investigator's signature: _____

Name: _____

Date: _____

Exhibit A:

Description of Study

Exhibit G

CMV and WT1 Regulatory Approvals

[***]

Exhibit 31.1

CERTIFICATION OF THE CHIEF EXECUTIVE OFFICER

PURSUANT TO

SECURITIES EXCHANGE ACT RULES 13A-14(A) AND 15D-14(A)

I, Pascal Touchon, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Atara Biotherapeutics, 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 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 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: May 4, 2021

/s/ Pascal Touchon
Pascal Touchon
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER

PURSUANT TO

SECURITIES EXCHANGE ACT RULES 13A-14(A) AND 15D-14(A)

I, Utpal Koppikar certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Atara Biotherapeutics, 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 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 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: May 4, 2021

/s/ Utpal Koppikar
Utpal Koppikar
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 Atara Biotherapeutics, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2021, as filed with the Securities and Exchange Commission (the "Report"), Pascal Touchon, Chief Executive Officer of the Company, and Utpal Koppikar, Chief Financial Officer of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 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 results of operations of the Company.

Date: May 4, 2021

/s/ Pascal Touchon
Pascal Touchon
Chief Executive Officer
(Principal Executive Officer)

/s/ Utpal Koppikar
Utpal Koppikar
Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.