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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 September 30, 2021

OR

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

For the transition period from _____ to_____

Commission File Number: 001-39319

GENERATION BIO CO.
(Exact name of registrant as specified in its charter)

Delaware **(State or other jurisdiction of incorporation or organization)**	**81-4301284** **(I.R.S. Employer Identification Number)**
301 Binney Street **Cambridge, Massachusetts** **(Address of principal executive offices)**	**02142** **(Zip Code)**

(617) 655-7500
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 Par Value	**GBIO**	**Nasdaq Global Select Market**

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

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

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

As of October 29, 2021 there were 56,909,764 shares of Common Stock, $0.0001 par value per share, outstanding.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, or this Quarterly Report, of Generation Bio Co., contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act and Section 21E of the Securities Exchange Act of 1934, as amended, that involve substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this Quarterly Report, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "target," "will," "would," or the negative of these words or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this Quarterly Report include, among other things, statements about:

- the initiation, timing, progress and results of our research and development programs and preclinical studies and clinical trials;
- our estimates regarding expenses, future revenue, capital requirements, need for additional financing and the period over which we believe that our existing cash, cash equivalents and marketable securities will be sufficient to fund our operating expenses and capital expenditure requirements;
- the timing of and our ability to complete the build-out and regulatory agency review of our manufacturing facility;
- our ability to operate our manufacturing facility and manufacture for clinical and commercial supply out of the facility;
- the potential advantages of our non-viral genetic medicine platform;
- our plans to develop and, if approved, subsequently commercialize any product candidates we may develop;
- the timing of and our ability to submit applications for, obtain and maintain regulatory approvals for any product candidates we may develop;
- our estimates regarding the potential addressable patient populations for our programs;
- the impact of the COVID-19 pandemic and our response to the pandemic;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our expectations regarding our ability to obtain, maintain, protect, defend and enforce our intellectual property protection;
- our intellectual property position;
- our ability to identify additional products, product candidates or technologies with significant commercial potential that are consistent with our commercial objectives;
- the impact of government laws and regulations;
- our competitive position and expectations regarding developments and projections relating to our competitors and any competing therapies that are or become available;

- developments and expectations regarding developments and projections relating to our competitors and our industry; and

- our ability to maintain and establish collaborations or obtain additional funding.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and stockholders should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Quarterly Report, particularly in the "Risk Factors" section in this Quarterly Report and our most recent Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Moreover, we operate in a competitive and rapidly changing environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, collaborations, joint ventures, or investments we may make or enter into.

Stockholders should read this Quarterly Report and the documents that we file with the SEC with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this Quarterly Report are made as of the date of this Quarterly Report, and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

Except where the context otherwise requires or where otherwise indicated, the terms "we," "us," "our," "our company," "the company," and "our business" in this Quarterly Report refer to Generation Bio Co. and its consolidated subsidiary.

Generation Bio Co.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements (unaudited)

Generation Bio Co.
Condensed Consolidated Balance Sheets
(In thousands, except share and per share amounts)
(Unaudited)

	September 30, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 388,347	$ 62,889
Marketable securities	10,016	199,438
Prepaid expenses and other current assets	4,907	5,408
Total current assets	403,270	267,735
Property and equipment, net	22,962	23,781
Operating lease right-of-use assets	31,252	—
Restricted cash	5,692	2,051
Deferred offering costs	472	336
Other long-term assets	385	252
Total assets	$ 464,033	$ 294,155
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 520	$ 267
Accrued expenses and other current liabilities	9,627	10,953
Operating lease liability	4,359	—
Total current liabilities	14,506	11,220
Operating lease liability, net of current portion	42,317	—
Deferred rent, net of current portion	—	14,922
Total liabilities	56,823	26,142
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; 5,000,000 shares authorized and no shares issued or outstanding at September 30, 2021 and December 31, 2020	—	—
Common stock, $0.0001 par value; 150,000,000 shares authorized at September 30, 2021 and December 31, 2020; 56,878,032 and 46,970,012 shares issued at September 30, 2021 and December 31, 2020, respectively; 56,732,465 and 46,291,877 shares outstanding at September 30, 2021 and December 31, 2020, respectively	6	5
Additional paid-in capital	684,387	456,974
Accumulated other comprehensive income	—	9
Accumulated deficit	(277,183)	(188,975)
Total stockholders' equity	407,210	268,013
Total liabilities and stockholders' equity	$ 464,033	$ 294,155

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

Generation Bio Co.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Operating expenses:				
Research and development	$ 21,991	$ 15,308	$ 63,400	$ 42,158
General and administrative	9,667	5,661	24,755	14,611
Total operating expenses	31,658	20,969	88,155	56,769
Loss from operations	(31,658)	(20,969)	(88,155)	(56,769)
Other (expense) income:				
Other (expense) and interest income, net	(197)	120	(53)	472
Net loss and net loss attributable to common stockholders	$ (31,855)	$ (20,849)	$ (88,208)	$ (56,297)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.56)	$ (0.46)	$ (1.57)	$ (2.68)
Weighted average common shares outstanding, basic and diluted	56,629,193	45,468,838	56,108,492	21,011,439
Comprehensive loss:				
Net loss	$ (31,855)	$ (20,849)	$ (88,208)	$ (56,297)
Other comprehensive loss:				
Unrealized (losses) gains on marketable securities	(3)	30	(8)	26
Comprehensive loss	$ (31,858)	$ (20,819)	$ (88,216)	$ (56,271)

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

Generation Bio Co.
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity
(In thousands, except share amounts)
(Unaudited)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
	Three Months Ended September 30, 2021							
Balances at June 30, 2021	—	$ —	56,431,513	$ 6	$ 678,720	$ 4	$ (245,328)	$ 433,402
Issuance of common stock upon exercise of stock options	—	—	145,646	—	697	—	—	697
Vesting of restricted common stock	—	—	155,306	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	4,970	—	—	4,970
Unrealized losses on marketable securities	—	—	—	—	—	(4)	—	(4)
Net loss	—	—	—	—	—	—	(31,855)	(31,855)
Balances at September 30, 2021	—	$ —	56,732,465	$ 6	$ 684,387	$ —	$ (277,183)	$ 407,210

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
	Three Months Ended September 30, 2020							
Balances at June 30, 2020	—	$ —	45,028,024	$ 5	$ 448,052	$ (4)	$ (143,900)	$ 304,153
Issuance of common stock upon exercise of stock options	—	—	279,379	—	1,044	—	—	1,044
Vesting of restricted common stock	—	—	252,354	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	2,161	—	—	2,161
Unrealized gains on marketable securities	—	—	—	—	—	30	—	30
Net loss	—	—	—	—	—	—	(20,849)	(20,849)
Balances at September 30, 2020	—	$ —	45,559,757	$ 5	$ 451,257	$ 26	$ (164,749)	$ 286,539

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

Generation Bio Co.
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity
(In thousands, except share amounts)
(Unaudited)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
	Nine Months Ended September 30, 2021							
Balances at December 31, 2020	—	$ —	46,291,877	$ 5	$ 456,974	$ 9	$ (188,975)	$ 268,013
Issuance of common stock upon public offering, net of issuance costs of $590	—	—	9,200,000	1	211,285	—	—	211,286
Issuance of common stock upon exercise of stock options	—	—	689,166	—	2,947	—	—	2,947
Vesting of restricted common stock	—	—	535,911	—	—	—	—	—
Issuance of common stock under other equity plans	—	—	15,511	—	355	—	—	355
Stock-based compensation expense	—	—	—	—	12,826	—	—	12,826
Unrealized losses on marketable securities	—	—	—	—	—	(9)	—	(9)
Net loss	—	—	—	—	—	—	(88,208)	(88,208)
Balances at September 30, 2021	—	$ —	56,732,465	$ 6	$ 684,387	$ —	$ (277,183)	$ 407,210

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
	Nine Months Ended September 30, 2020							
Balances at December 31, 2019	26,425,664	$ 115,593	5,270,889	$ 1	$ 9,859	$ —	$ (108,452)	$ (98,592)
Issuance of Series C convertible preferred stock, net of issuance costs of $2,640	19,936,296	108,832	—	—	—	—	—	—
Conversion of convertible preferred stock into common stock upon initial public offering	(46,361,960)	(224,425)	27,094,085	3	224,422	—	—	224,425
Issuance of common stock upon initial public offering, net of issuance costs of $3,185	—	—	12,105,263	1	210,714	—	—	210,715
Issuance of common stock upon exercise of stock options	—	—	319,642	—	1,229	—	—	1,229
Vesting of restricted common stock	—	—	769,878	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	5,033	—	—	5,033
Unrealized gains on marketable securities	—	—	—	—	—	26	—	26
Net loss	—	—	—	—	—	—	(56,297)	(56,297)
Balances at September 30, 2020	—	$ —	45,559,757	$ 5	$ 451,257	$ 26	$ (164,749)	$ 286,539

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

Generation Bio Co.
Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2021	2020
Cash flows from operating activities:		
Net loss	$ (88,208)	$ (56,297)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	12,826	5,033
Depreciation and amortization expense	3,367	2,441
Amortization (accretion) of premium (discount) on marketable securities, net	514	88
Loss on sale of property and equipment	223	—
Changes in operating assets and liabilities:		
Tenant receivable	—	448
Prepaid expenses and other current assets	504	(2,870)
Other noncurrent assets	(1,021)	(169)
Accounts payable	253	(1,321)
Accrued expenses and other current liabilities	523	1,631
Deferred rent	—	(761)
Net cash used in operating activities	(71,019)	(51,777)
Cash flows from investing activities:		
Purchases of property and equipment	(3,123)	(3,724)
Proceeds from sale of property and equipment	105	—
Purchases of marketable securities	—	(221,823)
Maturities of marketable securities	188,900	—
Net cash provided by (used in) investing activities	185,882	(225,547)
Cash flows from financing activities:		
Proceeds from issuance of convertible preferred stock, net of issuance costs incurred and paid in current period	—	108,854
Proceeds from public offering of common stock, net of underwriting discounts and commissions	211,876	213,900
Payment of offering costs	(942)	(3,185)
Proceeds from exercise of stock options	3,302	1,229
Net cash provided by financing activities	214,236	320,798
Net increase in cash, cash equivalents and restricted cash	329,099	43,474
Cash, cash equivalents and restricted cash at beginning of period	64,940	17,183
Cash, cash equivalents and restricted cash at end of period	$ 394,039	$ 60,657
Supplemental disclosure of noncash investing and financing information:		
Conversion of convertible preferred stock to common stock	$ —	$ 224,425
Purchases of property and equipment included in accounts payable and accrued expenses	$ 249	$ 404
Offering costs included in accrued expenses	$ 80	$ —

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

1. Nature of the Business and Basis of Presentation

Generation Bio Co., or Generation Bio, was incorporated on October 21, 2016 as Torus Therapeutics, Inc. and subsequently changed its name to Generation Bio Co. Generation Bio and its consolidated subsidiary, or the company, we, our or us, are innovating genetic medicines to provide durable, redosable treatments for potentially hundreds of millions of patients living with rare and prevalent diseases. Our non-viral genetic medicine platform incorporates our high-capacity DNA construct called closed-ended DNA, or ceDNA; our cell-targeted lipid nanoparticle delivery system, or ctLNP; and our highly scalable capsid-free manufacturing process that uses our proprietary cell-free rapid enzymatic synthesis, or RES, to produce ceDNA. Using our approach, we are developing novel genetic medicines to provide targeted delivery of genetic payloads that include large and multiple genes to a range of tissues across a broad array of diseases. We are also engineering our genetic medicines to be redosable, which may enable individualized patient titration to reach the desired therapeutic expression and to maintain efficacy throughout a patient's life. We are headquartered in Cambridge, Massachusetts.

We are subject to risks and uncertainties common to early-stage companies in the biotechnology industry, including, but not limited to, development by competitors of new technological innovations, dependence on key personnel, protection of proprietary technology, compliance with government regulations, uncertainties regarding the timing and ability to complete the build-out of our manufacturing facility, the ability to establish clinical- and commercial-scale manufacturing processes and the ability to secure additional capital to fund operations. Programs currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization of a product. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Even if our development efforts are successful, it is uncertain when, if ever, we will realize significant revenue from product sales.

In June 2020, we completed our initial public offering, or IPO, pursuant to which we issued and sold 12,105,263 shares of our common stock, including 1,578,947 shares pursuant to the full exercise of the underwriters' option to purchase additional shares resulting in net proceeds of $210.7 million, after deducting underwriting discounts and commissions and other offering expenses. Upon the closing of the IPO, all of our outstanding convertible preferred stock automatically converted into shares of common stock. In January 2021, we issued and sold 9,200,000 shares of our common stock, including 1,200,000 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, in a follow-on public offering, resulting in net proceeds of $211.3 million after deducting underwriting discounts and commissions and other offering expenses.

The accompanying condensed consolidated financial statements have been prepared on the basis of continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the ordinary course of business. Since inception, we have funded our operations with proceeds from the sales of instruments convertible into convertible preferred stock (which converted into convertible preferred stock in 2017), the sale of convertible preferred stock (which converted into common stock in 2020), and most recently, with proceeds from the sale of common stock in underwritten public offerings. We have incurred recurring losses, including net losses of $88.2 million for the nine months ended September 30, 2021 and $56.3 million for the nine months ended September 30, 2020. As of September 30, 2021, we had an accumulated deficit of $277.2 million. We expect to continue to generate operating losses in the foreseeable future. As of November 10, 2021, the issuance date of these condensed consolidated financial statements, we expect that our cash, cash equivalents and marketable securities will be sufficient to fund our operating expenses and capital expenditure requirements for at least 12 months.

We will need to obtain additional funding through public or private equity offerings, debt financings, collaborations, strategic alliances and/or licensing arrangements. We may not be able to obtain financing on acceptable terms, or at all, and we may not be able to enter into collaborative or strategic alliances or licensing arrangements. The terms of any financing may adversely affect the holdings or the rights of our stockholders. Arrangements with collaborators or others may require us to relinquish rights to certain of our technologies or programs. If we are unable to obtain funding, we could be forced to delay, reduce or eliminate some or all of our research and development programs, pipeline expansion or commercialization efforts, which could adversely affect our business prospects. Although management will continue to pursue these plans, there is no assurance that we will be successful in obtaining sufficient funding on terms acceptable to us to fund continuing operations when needed or at all.

The accompanying condensed consolidated financial statements reflect the operations of Generation Bio and our wholly owned subsidiary, Generation Bio Securities Corporation. Intercompany balances and transactions have been eliminated in consolidation. The accompanying condensed consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States of America, or GAAP. Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification, or ASC, and Accounting Standards Update, or ASU, of the Financial Accounting Standards Board, or FASB.

2. Summary of Significant Accounting Policies

Use of estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting periods. Significant estimates and assumptions reflected in these condensed consolidated financial statements include, but are not limited to, the accrual of research and development expenses and stock-based compensation expense. We base our estimates on historical experience, known trends and other market-specific or other relevant factors that we believe to be reasonable under the circumstances. On an ongoing basis, management evaluates its estimates, as there are changes in circumstances, facts and experience. Changes in estimates are recorded in the period in which they become known. Actual results may differ from those estimates or assumptions.

Unaudited interim financial information

The condensed consolidated balance sheet as of December 31, 2020 was derived from audited financial statements but does not include all disclosures required by GAAP. The accompanying unaudited financial statements as of September 30, 2021 and for the three and nine months ended September 30, 2021 and 2020 have been prepared by us pursuant to the rules and regulations of the Securities and Exchange Commission, or SEC, for interim financial statements. Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. These financial statements should be read in conjunction with our audited financial statements included in our Annual Report on Form 10-K that was most recently filed with the SEC. In the opinion of management, all adjustments, consisting only of normal recurring adjustments necessary for a fair presentation of our financial position as of September 30, 2021, the results of operations for the three and nine months ended September 30, 2021 and 2020, and cash flows for the nine months ended September 30, 2021 and 2020 have been made. The results of operations for the three and nine months ended September 30, 2021 are not necessarily indicative of the results of operations that may be expected for the year ending December 31, 2021 or any other period.

Concentrations of credit risk and of significant suppliers

Financial instruments that potentially expose us to concentrations of credit risk consist primarily of cash, cash equivalents, and marketable securities. We believe that we are not exposed to significant credit risk due to the financial strength of the depository institutions in which our cash and cash equivalents are held. We maintain our cash equivalents in money market funds that invest in U.S. treasury securities. Our marketable securities as of September 30, 2021 consisted of U.S. government treasury securities. We have adopted an investment policy that limits the amounts that we may invest in the securities of single issuer with the exclusion of the U.S. government. We have not experienced any credit losses.

We are dependent on a small number of third-party suppliers for our drug substance and drug product. In particular, we rely, and expect to continue to rely, on third-party suppliers for certain materials and components required for the production of any product candidates we may develop for our programs. These programs could be adversely affected in the event of a significant interruption in the supply process.

Marketable securities

Our marketable securities that consist of debt securities as of September 30, 2021 are classified as available-for-sale and are reported at fair value. Unrealized gains and losses on available-for-sale debt securities are reported as a

component of accumulated other comprehensive income (loss) in stockholders' equity. Effective January 1, 2021, we adopted ASU 2016-13, Financial Instruments – Credit Losses (Topic 326), using the effective date method. As we have never recorded any other-than-temporary-impairment adjustments to our available-for-sale debt securities prior to January 1, 2021, no transition provisions are applicable to our condensed consolidated financial statements and related disclosures.

We assess our available-for-sale debt securities under the available-for-sale debt security impairment model in Topic 326 as of each reporting date in order to determine if a portion of any decline in fair value below carrying value recognized on our available-for-sale debt securities is the result of a credit loss. We record credit losses in the condensed consolidated statements of operations and comprehensive loss as credit loss expense, which is limited to the difference between the fair value and the amortized cost of the security. To date, we have not recorded any credit losses on our available-for-sale debt securities.

Leases

We determine whether a contract is, or contains, a lease at inception. We classify each of our leases as operating or financing considering factors such as the length of the lease term, the present value of the lease payments, the nature of the asset being leased, and the potential for ownership of the asset to transfer during the lease term. Leases with terms greater than one-year are recognized on the condensed consolidated balance sheets as right-of-use assets and lease liabilities and are measured at the present value of the fixed payments due over the expected lease term less the present value of any incentives, rebates or abatements we expect to receive from the lessor. Options to extend a lease are included in the expected lease term if exercise of the option is deemed reasonably certain. Costs determined to be variable and not based on an index or rate are not included in the measurement of the lease liability and are expensed as incurred. The interest rate implicit in lease contracts is typically not readily determinable. As such, we utilize the appropriate incremental borrowing rate, which is the rate incurred to borrow on a collateralized basis an amount equal to the lease payments over a similar term and in a similar economic environment. To estimate our incremental borrowing rate, a credit rating applicable to our company is estimated using a synthetic credit rating analysis since we do not currently have a rating agency-based credit rating. We record expense to recognize fixed lease payments on a straight-line basis over the expected lease term. We have elected the practical expedient not to separate lease and non-lease components for real estate leases.

Recently adopted accounting pronouncements

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). The standard requires that all lessees recognize the assets and liabilities that arise from leases on the balance sheet and disclose qualitative and quantitative information about its leasing arrangements. In July 2018, the FASB issued ASU 2018-11, which provided entities with an additional transition method to adopt Topic 842. Under the new transition method, an entity initially applies the new lease requirements at the adoption date, not the earliest period presented, and recognizes a cumulative effect adjustment to the opening balance of retained earnings in the period of adoption. For public entities, the guidance was effective for annual reporting periods beginning after December 15, 2018 and for interim periods within those fiscal years. For nonpublic entities, the guidance was effective for annual reporting periods beginning after December 15, 2019. Early adoption was permitted for all entities. In November 2019, the FASB issued ASU 2019-10, which deferred the effective date for nonpublic entities to annual reporting periods beginning after December 15, 2020, and interim periods within fiscal years beginning after December 15, 2021. In June 2020, the FASB issued ASU 2020-05, which granted a one-year effective-date delay for nonpublic entities to annual reporting periods beginning after December 15, 2021 and to interim periods within fiscal years beginning after December 15, 2022. Early adoption continues to be allowed. We early adopted ASU 2016-02 on January 1, 2021 using the modified retrospective approach transition method as of the date of adoption such that prior periods will not be restated. We elected a package of practical expedients, under which an entity need not reassess whether any expired or existing contracts are or contain leases, the lease classification for any expired or existing leases, or initial direct costs for any existing leases. Please read Note 5 for additional disclosures related to accounting for leases under this new standard. The adoption of the new standard has had a material impact on our condensed consolidated balance sheet as the standard requires us to measure and recognize a right-of-use asset and lease liability. As most leases do not provide an implicit rate, our incremental borrowing rate was determined based on the information available at the date of adoption to measure our lease liability. Costs determined to be variable and not based on an index or rate were not included in the measurement of the lease liability. We recognized a lease liability and related right-of-use asset on our condensed consolidated balance sheet of approximately $49.7 million and $33.4 million, net of deferred rent, respectively,

as of January 1, 2021, which are presented as separate line items on the condensed consolidated balance sheet as of September 30, 2021. The adoption of the standard did not have a material impact on our condensed consolidated statement of operations and comprehensive loss and did not require a cumulative adjustment to accumulated deficit on our condensed consolidated statement of stockholders' equity as of September 30, 2021.

In June 2016, the FASB issued ASU 2016-13, Financial Instruments – Credit Losses (Topic 326). The new standard adjusts the accounting for assets held at amortized costs basis, including marketable securities accounted for as available-for-sale. The standard eliminates the probable initial recognition threshold and requires an entity to reflect its current estimate of all expected credit losses. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial assets to present the net amount expected to be collected. For public entities, the guidance was effective for annual reporting periods beginning after December 15, 2019 and for interim periods within those fiscal years. For nonpublic entities, the guidance was effective for annual reporting periods beginning after December 15, 2020. Early adoption is permitted for all entities. In November 2019, the FASB issued ASU 2019-10, which deferred the effective date for nonpublic entities to annual reporting periods beginning after December 15, 2022, including interim periods within those fiscal years. We adopted ASU 2016-13 on January 1, 2021 and the adoption did not have a material impact on our condensed consolidated financial statements and related disclosures.

In December 2019, the FASB issued ASU No. 2019-12, Income Taxes – Simplifying the Accounting for Income Taxes (Topic 740). The amendments in this update simplify the accounting for income taxes by removing certain exceptions to the general principles as well as clarifying and amending existing guidance to improve consistent application. For public entities, the guidance was effective for annual reporting periods beginning after December 15, 2020 and for interim periods within those fiscal years. For nonpublic entities, the guidance is effective for annual reporting periods beginning after December 15, 2021 and to interim periods within fiscal years beginning after December 15, 2022. Early adoption is permitted for all entities. Depending on the amendment, adoption may be applied on the retrospective, modified retrospective or prospective basis. We early adopted the amendments as of January 1, 2021 on a prospective basis. The amendments did not have a significant impact on our condensed consolidated financial statements and related disclosures.

Recently issued accounting pronouncements

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that we adopt as of the specified effective date. As an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, we elected not to "opt out" of the extended transition related to complying with new or revised accounting standards, which means that when a standard is issued or revised and it has different application dates for public and nonpublic companies, we could adopt the new or revised standard at the time nonpublic companies adopt the new or revised standard. However, as of June 30, 2021, the market value of our common stock that was held by non-affiliates exceeded $700.0 million, and as a result, we will no longer qualify as an emerging growth company as of December 31, 2021. Therefore, as of that date, we will no longer be able to take advantage of the extended transition period for adopting new or revised accounting standards.

3. Marketable Securities and Fair Value Measurements

The following tables present our marketable securities by security type:

	As of September 30, 2021			
(in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. treasury securities	$ 10,016	$ —	$ —	$ 10,016

	As of December 31, 2020			
(in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. treasury securities	$ 129,446	$ 9	$ (4)	$ 129,451
Commercial paper	52,441	—	—	52,441
Corporate debt securities	17,542	4	—	17,546
Total	$ 199,429	$ 13	$ (4)	$ 199,438

As of September 30, 2021 and December 31, 2020, marketable securities consisted of investments that mature within one year.

The following tables present our assets that are measured at fair value on a recurring basis and indicate the level within the fair value hierarchy of the valuation techniques that we utilized to determine such fair value:

	Fair Value Measurements at September 30, 2021 Using:			
(in thousands)	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 249,500	$ —	$ —	$ 249,500
Marketable securities:				
U.S. treasury securities	—	10,016	—	10,016

	Fair Value Measurements at December 31, 2020 Using:			
(in thousands)	Level 1	Level 2	Level 3	Total
Cash equivalents:				
Money market funds	$ 63,827	$ —	$ —	$ 63,827
Marketable securities:				
U.S. treasury securities	—	129,451	—	129,451
Commercial paper	—	52,441	—	52,441
Corporate debt securities	—	17,546	—	17,546
Total	$ 63,827	$ 199,438	$ —	$ 263,265

Money market funds were valued based on quoted market prices, which represent a Level 1 measurement within the fair value hierarchy. Our marketable securities, which have consisted of U.S. treasury securities, commercial paper and corporate debt securities were valued using quoted prices in active markets for similar securities, which represent a Level 2 measurement within the fair value hierarchy.

4. Accrued Expenses

Accrued expenses and other current liabilities consisted of the following:

(in thousands)	September 30, 2021	December 31, 2020
Accrued employee compensation and benefits	$ 5,163	$ 6,150
Accrued external research and development expenses	2,584	1,772
Accrued professional fees	1,140	940
Deferred rent	—	1,389
Other	740	702
Total	$ 9,627	$ 10,953

5. Leases

We lease our office and laboratory space under a noncancelable operating lease that was entered into in August 2018, amended in July 2019 and June 2020, and expires in 2029, or the Office and Lab Lease. We have an option to extend the Office and Lab Lease term for one additional term of five years at the greater of the then-current base rent or the then-current fair market value. Exercise of this option was not determined to be reasonably certain and thus was not considered in determining the operating lease liability on the condensed consolidated balance sheet as of September 30, 2021. We posted a letter of credit in the amount of approximately $2.1 million as a security deposit. The letter of credit is subject to increase if we were to sublease any portion of the leased premises. The Office and Lab Lease does not include any restrictions or covenants that had to be accounted for under the lease guidance.

In July 2021, we entered into a 12-year operating lease, or the Manufacturing Lease, to build out an approximately 104,000 square foot current Good Manufacturing Practice-, or cGMP-, compliant manufacturing facility in Waltham, Massachusetts to scale ceDNA manufacturing utilizing RES for cGMP-compliant clinical and initial commercial supply. In addition, the new facility will house expanded capacity for research production and process development activities. Subject to certain conditions, the Manufacturing Lease is anticipated to commence in June 2022, monthly rent payments are expected to begin in September 2022, and the total rent payment is expected to be approximately $104.3 million for the 12-year lease term. We expect to account for the Manufacturing Lease in our consolidated financial statements beginning in the fourth quarter of 2021. In connection with the Manufacturing Lease, we provided a security deposit of $3.6 million in the form of a letter of credit. We will pay an initial monthly base rent of approximately $0.4 million that will increase annually, up to an estimated monthly base rent of $0.8 million. We have an option to extend the Manufacturing Lease term for two additional terms of five years at the then-current fair market value. We are obligated to pay operating costs, taxes and utilities applicable to the facility. We will be responsible for costs of constructing interior improvements within the facility that exceed a construction allowance of $26.0 million provided by the landlord.

The following table presents our costs included in operating expenses related to our noncancelable operating leases:

(in thousands)	For the Three Months Ended September 30, 2021	For the Nine Months Ended September 30, 2021
Operating lease cost	$ 1,505	$ 4,514
Variable lease cost	454	1,346
Total	$ 1,959	$ 5,860

Net cash paid for the amounts included in the measurement of the operating lease liability on the condensed consolidated balance sheet and operating activities in our condensed consolidated statement of cash flows was $5.3 million for the period ending September 30, 2021. The weighted-average remaining lease term and weighted-average incremental borrowing rate for all leases as of September 30, 2021 was 7.6 years and 6.5%, respectively.

Future lease payments for our noncancelable operating leases as of September 30, 2021 and a reconciliation to the carrying amount of the operating lease liability presented in the condensed consolidated balance sheet as of September 30, 2021 are as follows:

Year Ending December 31,	(in thousands)
2021 (remaining 3 months)	$ 1,842
2022	7,267
2023	7,441
2024	7,679
2025	7,881
Thereafter	27,570
Total undiscounted payments due under operating leases	59,680
Less imputed interest	(13,004)
Total	$ 46,676
Current operating lease liability	$ 4,359
Non-current operating lease liability	42,317
Total	$ 46,676

6. Convertible Preferred Stock

Prior to the IPO, we had issued Series A convertible preferred stock, or Series A, Series B convertible preferred stock, or Series B, and Series C convertible preferred stock, or Series C. Collectively the Series A, Series B and Series C are referred to as the Convertible Preferred Stock.

On January 9, 2020, we issued and sold 19,936,296 shares of Series C at a price of $5.5914 per share for gross proceeds of $111.5 million. We incurred issuance costs in connection with this transaction of $2.6 million.

Upon issuance of each class of Convertible Preferred Stock, we assessed the embedded conversion and liquidation features of the shares and determined that such features did not require us to separately account for these features. We also concluded that no beneficial conversion feature existed on the issuance date of each class of Convertible Preferred Stock.

Upon the closing of the IPO in June 2020, our Convertible Preferred Stock automatically converted into 27,094,085 shares of common stock.

7. Equity

As of September 30, 2021, our amended and restated certificate of incorporation authorizes us to issue 150,000,000 shares of common stock, par value $0.0001 per share, and 5,000,000 shares of preferred stock, par value $0.0001 per share, all of which preferred stock is undesignated.

In January 2021, we issued and sold 9,200,000 shares of our common stock, including 1,200,000 shares pursuant to the full exercise of the underwriters' option to purchase additional shares, in a follow-on public offering, resulting in net proceeds of $211.3 million after deducting underwriting discounts and commissions and other offering expenses. In August 2021, we entered into an "at-the-market" sales agreement pursuant to which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $250.0 million. As of November 10, 2021, the issuance date of these condensed consolidated financial statements, we have not issued and sold any shares of our common stock pursuant to this sales agreement.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of our stockholders. Common stockholders are not entitled to receive dividends, unless declared by the board of directors.

8. Stock-Based Compensation

Stock incentive plans

Our 2017 Stock Incentive Plan, or the 2017 Plan, provided for us to grant incentive stock options or nonstatutory stock options, restricted stock, restricted stock units and other equity awards to employees, non-employees, and directors. In January 2020, the number of shares of common stock authorized for issuance under the 2017 Plan was increased from 8,407,405 shares to 10,275,717 shares.

In May 2020, our board of directors adopted, and in June 2020, our stockholders approved, the 2020 Stock Incentive Plan, or the 2020 Plan and, together with the 2017 Plan, the Plans, which became effective on June 11, 2020. The 2020 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock units and other stock-based awards. The number of shares of common stock reserved for issuance under the 2020 Plan is the sum of (1) 2,547,698 shares; plus (2) the number of shares (up to a maximum of 7,173,014 shares) as was equal to the sum of (x) the number of shares of common stock reserved for issuance under the 2017 Plan that remained available for grant under the 2017 Plan on June 11, 2020 and (y) the number of shares of common stock subject to outstanding awards granted under the 2017 Plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right; plus (3) an annual increase, to be added on the first day of each fiscal year, beginning with the fiscal year ending December 31, 2021 and continuing until, and including, the fiscal year ending December 31, 2030, equal to the lesser of (i) 4% of the number of shares of common stock outstanding on such date, and (ii) an amount determined by the board of directors. In January 2021, the number of shares of common stock authorized for issuance under the 2020 Plan was increased from 10,275,717 shares to 12,154,517 shares. Upon the effectiveness of the 2020 Plan, we ceased granting additional awards under the 2017 Plan.

The Plans are administered by the board of directors or, at the discretion of the board of directors, by a committee of the board of directors. The exercise prices, vesting and other restrictions on any award under the Plans are determined at the discretion of the board of directors, or its committee if so delegated. Stock options granted under the Plans with service-based vesting conditions generally vest over four years and expire after ten years. The exercise price for stock options granted is not less than the fair value of common stock as of the date of grant. Prior to our IPO, fair value of common stock was determined by the board of directors. Subsequent to the IPO, fair value of common stock is based on quoted market prices.

As of September 30, 2021, 2,862,735 shares remained available for future issuance under the 2020 Plan. Shares subject to outstanding awards granted under the Plans that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right will be available for future awards under the 2020 Plan.

Grant of stock options

During the nine months ended September 30, 2021, we granted service-based options to certain employees, non-employees, and directors for the purchase of 1,898,989 shares of common stock with a weighted average grant date fair value of $19.51 per share that vest over a weighted average period of approximately four years.

Employee stock purchase plan

In May 2020, our board of directors adopted, and in June 2020, our stockholders approved, the 2020 Employee Stock Purchase Plan, or the 2020 ESPP, which became effective June 11, 2020. The 2020 ESPP is administered by our board of directors or by a committee appointed by the board of directors. The number of shares of common stock reserved for issuance under the 2020 ESPP will automatically increase on the first day of each fiscal year, beginning with the fiscal year commencing on January 1, 2021 and continuing for each fiscal year until, and including the fiscal year commencing on, January 1, 2030, in an amount equal to the lowest of (1) 1,302,157 shares of common stock, (2) 1% of the number of shares of common stock outstanding on such date, and (3) an amount determined by the board of directors. In January 2021, the number of shares of common stock authorized for issuance under the 2020 ESPP was increased from 481,231

shares to 950,931 shares. During the nine months ended September 30, 2021, we issued 15,511 shares of common stock under the 2020 ESPP and 935,420 shares remained available for issuance as of September 30, 2021.

Stock-based compensation

Stock-based compensation expense was classified in the condensed consolidated statements of operations and comprehensive loss as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
(in thousands)	2021	2020	2021	2020
Research and development expenses	$ 2,498	$ 1,204	$ 6,772	$ 2,967
General and administrative expenses	2,472	957	6,054	2,066
Total	$ 4,970	$ 2,161	$ 12,826	$ 5,033

As of September 30, 2021, total unrecognized compensation cost related to unvested stock-based awards was $50.0 million, which is expected to be recognized over a weighted average period of 2.6 years. Additionally, as of September 30, 2021, we had unrecognized compensation cost related to unvested stock-based awards with performance-based vesting conditions for which performance has not been deemed probable of $1.8 million.

9. Commitments and Contingencies

401(k) Plan

We have a defined-contribution plan under Section 401(k) of the Internal Revenue Code of 1986, as amended, or the 401(k) Plan. The 401(k) Plan covers all employees who meet defined minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. In September 2020, we adopted a match program, beginning on January 1, 2021, for employee contributions to the 401(k) Plan up to a maximum of four percent of the employee's salary, subject to the maximums established under U.S. Internal Revenue Code of 1986, as amended.

Indemnification agreements

In the ordinary course of business, we may provide indemnification of varying scope and terms to vendors, lessors, contract research organizations, business partners and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. In addition, we have entered into indemnification agreements with members of our board of directors and our executive officers that will require us, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers. The maximum potential amount of future payments we could be required to make under these indemnification agreements is, in many cases, unlimited. We have not incurred any material costs as a result of such indemnifications and are not currently aware of any indemnification claims.

Legal proceedings

We, from time to time, may be party to litigation arising in the ordinary course of business. We were not subject to any material legal proceedings during the nine months ended September 30, 2021.

10. Net Loss per Share

We have generated a net loss in all periods presented, therefore the basic and diluted net loss per share attributable to common stockholders are the same as the inclusion of the potentially dilutive securities would be anti-dilutive. We excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share attributable to common stockholders for the periods indicated:

	September 30,	
	2021	2020
Unvested restricted common stock	145,567	930,476
Unvested restricted common stock units	14,760	26,242
Stock options to purchase common stock	6,071,008	5,581,717
Total	6,231,335	6,538,435

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q, or Quarterly Report, and our consolidated financial statements and related notes appearing in our most recently filed Annual Report on Form 10-K, or Annual Report, with the Securities and Exchange Commission, or SEC. Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this Quarterly Report, in our Annual Report and in the other documents filed with the SEC, 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 and Recent Developments

We are innovating genetic medicines to provide durable, redosable treatments for potentially hundreds of millions of patients living with rare and prevalent diseases. Our non-viral genetic medicine platform incorporates our high-capacity DNA construct called closed-ended DNA, or ceDNA; our cell-targeted lipid nanoparticle delivery system, or ctLNP; and our highly scalable capsid-free manufacturing process that uses our proprietary cell-free rapid enzymatic synthesis, or RES, to produce ceDNA. Using our approach, we are developing novel genetic medicines to provide targeted delivery of genetic payloads that include large and multiple genes to a range of tissues across a broad array of diseases. We are also engineering our genetic medicines to be redosable, which may enable individualized patient titration to reach the desired level of therapeutic expression and to maintain efficacy throughout a patient's life. The combination of the expected multi-year durability of a single dose of ceDNA, tissue-specific delivery and manufacturing capacity may enable dosing for hundreds of millions of patients living with prevalent diseases.

We are advancing a broad and expansive portfolio of programs, including rare and prevalent diseases of the liver and retina. We are focused on diseases with significant unmet need for which our non-viral genetic medicine platform may substantially improve clinical efficacy relative to current gene therapy approaches. We are initially prioritizing rare monogenic diseases of the liver and retina, which are diseases that result from mutations in a single gene, that have well-established biomarkers and clear clinical and regulatory pathways. We plan to expand our portfolio to include rare and prevalent diseases of the skeletal muscle, the central nervous system, or CNS, and oncology by developing discrete ctLNPs, each engineered to reach a different tissue.

We believe our ctLNP will allow us to address a variety of inherited retinal diseases. Data from our study of the sub-retinal delivery of ceDNA using ctLNP demonstrated broad distribution and durable expression in rodents. In our study, expression was comparable to that achieved with adeno-associated virus Type 5, or AAV5, delivery, which is the current standard for retinal gene therapy, and ceDNA delivered using ctLNP was well-tolerated without evidence of photoreceptor degeneration, supporting the potential for full gene replacement to address diseases of the retina. In addition, our study in rodents and non-human primates on the sub-retinal delivery of messenger RNA, or mRNA, demonstrated the first-ever species-translation from rodent to non-human primates using ctLNP with comparable tolerability and uniform photoreceptor expression across species. Distribution with ctLNP in this study was broader and more uniform than that achieved with AAV5 in mice, and total expression was comparable to AAV5. These findings suggest ctLNP as a best-in-class non-viral delivery system for mRNA, potentially enabling gene editing in the retina.

Additionally, we believe our non-viral genetic medicine platform may allow patients to produce antibody therapies from their own cells for years at a time from a single dose, and plan to advance endogenous therapeutic antibody production, or ETAP, programs across multiple therapeutic areas. Data from an *in vivo* study conducted as part of our research collaboration with Vir Biotechnology, Inc. showed that ceDNA delivered via LNP enabled mice to generate persistent anti-spike protein human antibody concentrations with a peak level of 8µg/ml, which corresponds to a level that may be therapeutically relevant in humans. Furthermore, endogenously produced antibodies in the serum of ceDNA-treated mice retained binding and functional activity, neutralizing SARS-CoV-2 *ex vivo* at the same level as recombinantly produced monoclonal antibodies.

Our most advanced liver disease programs are in hemophilia A and phenylketonuria, or PKU, which are in the preclinical stage of development, and our most advanced retina disease programs are in Leber's Congenital Amaurosis 10, or LCA10, and Stargardt disease, which are in the lead optimization stage of development. In the preclinical stage of development, we are conducting additional *in vivo* studies to identify development candidates and are assessing these candidates in investigational new drug, or IND, -enabling studies. We plan to submit an IND application for our hemophilia A program in 2023, and expect to report Factor VIII expression data in non-human primates by year-end. In the lead optimization stage, we are seeking to identify ceDNA constructs that provide disease relevant expression in an animal model.

In parallel with our platform development, we are developing the constructs and manufacturing capacity to rapidly advance new disease programs in a tissue or therapeutic area once human proof of concept is established. We have developed novel, next-generation rapid enzymatic approach to manufacture ceDNA that does not rely on Sf9 cells. Instead, the process uses enzymes to convert plasmid DNA into ceDNA, similar to the current high-capacity methods used to manufacture mRNA vaccines. In comparison to Sf9 manufacturing, RES has consistently yielded highly pure ceDNA, reduced ceDNA variability, and shortened the ceDNA production cycle time from 28 days to one day. We expect that scaling RES may enable us to manufacture our potential drug candidates in a cost-effective manner and to expand access to patients with prevalent diseases, requiring hundreds of millions of doses, on a sustainable basis. We plan to transition all of our portfolio programs to RES.

Additionally, to realize the full potential of RES, in July 2021, we entered into a lease agreement with Zinc II PropCo 2020, LLC to build out an approximately 104,000 square foot current Good Manufacturing Practice-, or cGMP-, compliant manufacturing facility in Waltham, Massachusetts. The facility, expected to be operational in 2023, will be designed to scale ceDNA manufacturing utilizing RES for cGMP-compliant clinical and initial commercial supply. In addition, the new facility will house expanded capacity for research production and process development activities. We plan to invest up to $45 million in the new manufacturing facility over the next two years, and we believe this investment will allow us to realize the potential of RES, maximizing the value of our platform and accelerating the development of subsequent programs. We plan to continue to rely on contract manufacturing organizations during and after construction to provide redundancy and secure additional ceDNA supply.

Since our inception in October 2016, we have focused substantially all of our resources on building our non-viral genetic medicine platform, establishing and protecting our intellectual property portfolio, conducting research and development activities, developing our manufacturing process, organizing and staffing our company, business planning, raising capital and providing general and administrative support for these operations. We do not have any products approved for sale and have not generated any revenue from product sales. To date, we have funded our operations with proceeds from instruments convertible into convertible preferred stock (which converted into convertible preferred stock in 2017) and the sales of convertible preferred stock (which converted into common stock in 2020) and, most recently, with proceeds from the sale of common stock in our public offerings. In June 2020, we completed our initial public offering, or IPO, pursuant to which we issued and sold 12,105,263 shares of our common stock, including 1,578,947 shares sold by us pursuant to the full exercise of the underwriters' option to purchase additional shares. We received net proceeds of $210.7 million, after deducting underwriting discounts and commissions and other offering expenses. In January 2021, we issued and sold 9,200,000 shares of our common stock, including 1,200,000 shares sold by us pursuant to the full exercise of the underwriters' option to purchase additional shares, in a follow-on public offering, resulting in net proceeds of $211.3 million after deducting underwriting discounts and commissions and other offering expenses.

Historically, we have incurred significant operating losses. Our ability to generate any product revenue or product revenue sufficient to achieve profitability will depend on the successful development and eventual commercialization of one or more product candidates we may develop. For the nine months ended September 30, 2021, we reported net losses of $88.2 million, and for the nine months ended September 30, 2020, we reported net losses of $56.3 million. As of September 30, 2021, we had an accumulated deficit of $277.2 million. We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. We expect that our expenses and capital requirements will increase substantially in connection with our ongoing activities, particularly if and as we:

- continue our current research programs and conduct additional research programs;
- advance any product candidates we identify into preclinical and clinical development;

- expand the capabilities of our proprietary non-viral genetic medicine platform;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- obtain, expand, maintain, defend and enforce our intellectual property portfolio;
- hire additional clinical, regulatory and scientific personnel;
- ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- build out our manufacturing facility and scale RES to produce clinical and initial commercial supply;
- establish a commercial manufacturing source and secure supply chain capacity sufficient to provide commercial quantities of any product candidates for which we may obtain regulatory approval; and
- add operational, legal, compliance, financial and management information systems and personnel to support our research, product development, future commercialization efforts and operations as a public company.

We will not generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for any product candidates we may develop. If we obtain regulatory approval for any product candidates we may develop, we expect to incur significant expenses related to developing our commercial capability to support product sales, marketing and distribution. Further, we expect to continue to incur additional costs associated with operating as a public company.

As a result, we will need substantial additional funding to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of equity offerings, debt financings, collaborations, strategic alliances and/or licensing arrangements. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on favorable terms, or at all. If we fail to raise capital or enter into such agreements when needed or on terms acceptable to us, we would be required to delay, limit, reduce or terminate our product development or future commercialization of one or more of our product candidates.

Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve or maintain profitability. Even if we are able to generate product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

We believe that our existing cash, cash equivalents and marketable securities, will enable us to fund our operating expenses and capital expenditures into 2024. We have based our estimates as to how long we expect we will be able to fund our operations on assumptions that may prove to be wrong. We could use our available capital resources sooner than we currently expect, in which case we would be required to obtain additional financing, which may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. See “—Liquidity and Capital Resources.”

COVID-19

In March 2020, COVID-19 was declared a global pandemic by the World Health Organization and to date, the COVID-19 pandemic continues to present a substantial public health and economic challenge around the world. The length of time and full extent to which the COVID-19 pandemic may directly or indirectly impact our business, results of operations and financial condition will depend on future developments that are highly uncertain, subject to change and difficult to predict. We, our contract development and manufacturing organizations, or CDMOs, and our contract research

organizations, or CROs, experienced temporary reductions in the capacity to undertake research-scale production and to execute some preclinical studies. While these operations have since normalized, we, together with our CDMOs and CROs, are closely monitoring the impact of the COVID-19 pandemic on these operations. In addition, shortages, delays and governmental restrictions arising from the COVID-19 pandemic have disrupted and may continue to disrupt global supply chains and our and our vendors' ability to procure items, such as raw materials, that are essential for the manufacturing of our product candidates or needed to build out our manufacturing facility.

We plan to continue to closely monitor the ongoing impact of the COVID-19 pandemic on our employees and our other business operations. In an effort to provide a safe work environment for our employees, we had, among other things, limited employees in our office and lab facilities to those where on-site presence is needed for their job activities, increased the cadence of sanitization of our office and lab facilities, implemented various social distancing measures in our offices and labs including replacing all in-person meetings with virtual interactions, and provided personal protective equipment for our employees present in our office and lab facilities. Currently, we continue to monitor the impact and effects of the COVID-19 pandemic and our response to it, and, in accordance with updated federal and state guidelines, we have relaxed some of our COVID-19 related restrictions and are permitting on-site presence for a limited number of additional employees.

In addition, in September 2021, the Biden Administration proposed a new rule requiring all employers with 100 or more employees to ensure either the full vaccination or weekly testing of employees; and in November 2021, the Occupational Safety and Health Administration issued an emergency temporary standard, or ETS, implementing this rule. Complying with the ETS could be difficult and costly, and it is possible that some employees may choose to leave employment over a vaccination or testing requirement. The ETS is already subject to a number of legal challenges, the outcomes of which remain uncertain. It is currently not possible to predict with certainty the exact impact the ETS would have on us. We expect to continue to take actions as may be required or recommended by government authorities or as we determine are in the best interests of our employees and other business partners in light of the pandemic.

Components of Our Results of Operations

Operating expenses

Research and development expenses

Research and development expenses consist primarily of costs incurred for our research activities, including our discovery efforts, and the development of our programs, which include:

- personnel-related costs, including salaries, benefits and stock-based compensation expense, for employees engaged in research and development functions;
- expenses incurred in connection with our research programs, including under agreements with third parties, such as consultants, contractors, CROs, and regulatory agency fees;
- the cost of developing and scaling our manufacturing process and manufacturing drug substance and drug product for use in our research and preclinical studies, including under agreements with third parties, such as consultants and contractors and CDMOs;
- laboratory supplies and research materials;
- facilities, depreciation and amortization and other expenses, which include direct and allocated expenses for rent and maintenance of facilities and insurance; and
- payments made under third-party licensing agreements.

We expense research and development costs as incurred. Advance payments that we make for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. The prepaid amounts are expensed as the related goods are delivered or the services are performed.

Our external research and development expenses consist of costs that include fees and other costs paid to consultants, contractors, CDMOs and CROs in connection with our preclinical and manufacturing activities. We do not allocate our research and development costs to specific programs because costs are deployed across multiple programs and our platform and, as such, are not separately classified. We expect that our research and development expenses will increase substantially as we advance our programs into clinical development and expand our discovery, research and preclinical activities in the near term and in the future. At this time, we cannot accurately estimate or know the nature, timing and costs of the efforts that will be necessary to complete the preclinical and clinical development of any product candidates we may develop. The successful development of any of our product candidates is highly uncertain. This is due to the numerous risks and uncertainties associated with product development, including the following:

- the timing and progress of preclinical studies, including IND-enabling studies;
- the number and scope of preclinical and clinical programs we decide to pursue;
- raising additional funds necessary to complete preclinical and clinical development of our product candidates;
- the timing of the submission and acceptance of IND applications or comparable foreign applications that allow commencement of future clinical trials for our product candidates;
- the successful initiation, enrollment and completion of clinical trials, including under current good clinical practices;
- our ability to achieve positive results from our future clinical programs that support a finding of safety and effectiveness and an acceptable risk-benefit profile in the intended patient populations of any product candidates we may develop;
- the availability of specialty raw materials for use in production of our product candidates;
- our ability to build out our manufacturing facility and scale RES to produce clinical and initial commercial supply;
- our ability to establish arrangements with third-party manufacturers for preclinical and clinical supply;
- our ability to establish new licensing or collaboration arrangements;
- the receipt and related terms of regulatory approvals from the U.S. Food and Drug Administration, or FDA, and other applicable regulatory authorities;
- our ability to establish, obtain, maintain, enforce and defend patent, trademark, trade secret protection and other intellectual property rights or regulatory exclusivity for any product candidates we may develop and our technology; and
- our ability to maintain a continued acceptable safety, tolerability and efficacy profile of our product candidates following approval.

A change in the outcome of any of these variables with respect to any product candidates we may develop could significantly change the costs and timing associated with the development of that product candidate. We may never succeed in obtaining regulatory approval for any product candidates we may develop.

General and administrative expenses

General and administrative expenses consist primarily of personnel-related costs, including salaries, benefits and stock-based compensation, for employees engaged in executive, legal, finance and accounting and other administrative functions. General and administrative expenses also include professional fees for legal, patent, consulting, investor and public relations and accounting and audit services as well as direct and allocated facility-related costs.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support our continued research activities and development of our programs and platform. We also anticipate that we will continue to incur increased accounting, audit, legal, regulatory, compliance, director and officer insurance costs and investor and public relations expenses associated with operating as a public company.

Other (expense) income

Other (expense) and interest income, net

Other (expense) and interest income, net consists of interest income earned on our invested cash balances and other (expense) income from miscellaneous expenses and income unrelated to our core operations.

Results of Operations

Comparison of the three months ended September 30, 2021 and 2020

The following table summarizes our results of operations for the three months ended September 30, 2021 and 2020:

(in thousands)	Three Months Ended September 30, 2021	2020	Change
Operating expenses:			
Research and development	$ 21,991	$ 15,308	$ 6,683
General and administrative	9,667	5,661	4,006
Total operating expenses	31,658	20,969	10,689
Loss from operations	(31,658)	(20,969)	(10,689)
Other (expense) income:			
Other (expense) and interest income, net	(197)	120	(317)
Net loss	$ (31,855)	$ (20,849)	$ (11,006)

Research and development expenses

The following table summarizes our research and development expenses for the three months ended September 30, 2021 and 2020:

(in thousands)	Three Months Ended September 30, 2021	2020	Change
Personnel-related	$ 6,375	$ 4,434	$ 1,941
Preclinical and manufacturing	5,946	4,955	991
Facilities	2,610	2,355	255
Stock-based compensation	2,498	1,204	1,294
Lab supplies	1,953	1,086	867
Consulting and professional services	734	356	378
Other	1,875	918	957
Total research and development expenses	$ 21,991	$ 15,308	$ 6,683

Research and development expenses were $22.0 million for the three months ended September 30, 2021, compared to $15.3 million for the three months ended September 30, 2020. The increases of $1.9 million in personnel-related costs and $1.3 million in stock-based compensation costs were primarily due to increased headcount in our research and development function. The increase in preclinical and manufacturing costs and lab supplies of $1.0 million and $0.9 million, respectively, was primarily due to increased preclinical activity as we continue our efforts to advance our two lead programs into IND-enabling studies.

General and administrative expenses

The following table summarizes our general and administrative expenses for the three months ended September 30, 2021 and 2020:

(in thousands)	Three Months Ended September 30, 2021	2020	Change
Personnel-related	$ 3,354	$ 2,160	$ 1,194
Stock-based compensation	2,472	957	1,515
Professional and consultant fees	2,178	1,905	273
Facilities	206	379	(173)
Other	1,457	260	1,197
Total general and administrative expenses	$ 9,667	$ 5,661	$ 4,006

General and administrative expenses were $9.7 million for the three months ended September 30, 2021, compared to $5.7 million for the three months ended September 30, 2020. The increase in stock-based compensation costs and personnel-related costs of $1.5 million and $1.2 million, respectively, were primarily a result of an increase in headcount in our general and administrative function. The increase of $1.2 million in other costs was primarily a result of expense recognized related to the termination of a software license agreement during the three months ended September 30, 2021.

Other (expense) and interest income, net

Other expense, net for the three months ended September 30, 2021 was $0.2 million as compared to other income, net of $0.1 million for the three months ended September 30, 2020. The increase in other expense, net from the three months ended September 30, 2020 was due to the loss recognized on the sale of equipment and a decrease in interest earned on invested cash balances.

Comparison of the nine months ended September 30, 2021 and 2020

The following table summarizes our results of operations for the nine months ended September 30, 2021 and 2020:

	Nine Months Ended September 30,		
(in thousands)	**2021**	**2020**	**Change**
Operating expenses:			
Research and development	$ 63,400	$ 42,158	$ 21,242
General and administrative	24,755	14,611	10,144
Total operating expenses	88,155	56,769	31,386
Loss from operations	(88,155)	(56,769)	(31,386)
Other (expense) income:			
Other (expense) and interest income, net	(53)	472	(525)
Net loss	$ (88,208)	$ (56,297)	$ (31,911)

Research and development expenses

The following table summarizes our research and development expenses for the nine months ended September 30, 2021 and 2020:

	Nine Months Ended September 30,		
(in thousands)	**2021**	**2020**	**Change**
Preclinical and manufacturing	$ 19,584	$ 11,718	$ 7,866
Personnel-related	17,530	12,546	4,984
Facilities	7,350	7,099	251
Stock-based compensation	6,772	2,967	3,805
Lab supplies	5,388	2,936	2,452
Consulting and professional services	1,837	2,494	(657)
Other	4,939	2,398	2,541
Total research and development expenses	$ 63,400	$ 42,158	$ 21,242

Research and development expenses were $63.4 million for the nine months ended September 30, 2021, compared to $42.2 million for the nine months ended September 30, 2020. The increase in preclinical and manufacturing costs and lab supplies of $7.9 million and $2.5 million, respectively, was primarily due to increased preclinical activity as we continue our efforts to advance our two lead programs into IND-enabling studies. The increases of $5.0 million in personnel-related costs and $3.8 million in stock-based compensation costs were primarily due to increased headcount in our research and development function.

General and administrative expenses

The following table summarizes our general and administrative expenses for the nine months ended September 30, 2021 and 2020:

(in thousands)	Nine Months Ended September 30, 2021	2020	Change
Personnel-related	$ 9,646	$ 5,555	$ 4,091
Stock-based compensation	6,054	2,066	3,988
Professional and consultant fees	5,777	5,293	484
Facilities	888	1,120	(232)
Other	2,390	577	1,813
Total general and administrative expenses	$ 24,755	$ 14,611	$ 10,144

General and administrative expenses were $24.8 million for the nine months ended September 30, 2021, compared to $14.6 million for the nine months ended September 30, 2020. The increase in personnel-related costs and stock-based compensation costs of $4.1 million and $4.0 million, respectively, were primarily a result of an increase in headcount in our general and administrative function.

Other (expense) and interest income, net

Other expense, net for the nine months ended September 30, 2021 was $0.1 million compared to other income, net of $0.5 million for the nine months ended September 30, 2020. The increase in other expense, net from the nine months ended September 30, 2020 was due to the loss recognized on the sale of equipment and a decrease in interest earned on invested cash balances.

Liquidity and Capital Resources

Since our inception, we have incurred significant operating losses. We expect to incur significant expenses and operating losses for the foreseeable future as we support our continued research activities and development of our programs and platform. We have not yet commercialized any product candidates and we do not expect to generate revenue from sales of any product candidates for several years, if at all. To date, we have funded our operations with proceeds from instruments convertible into convertible preferred stock (which converted into convertible preferred stock in 2017), the sale of convertible preferred stock (which converted into common stock in 2020) and with proceeds from the sale of common stock in our public offerings. In June 2020, we completed our IPO, pursuant to which we issued and sold 12,105,263 shares of our common stock, including 1,578,947 shares sold by us pursuant to the full exercise of the underwriters' option to purchase additional shares. We received net proceeds of $210.7 million, after deducting underwriting discounts and commissions and other offering expenses. In January 2021, we issued and sold 9,200,000 shares of our common stock, including 1,200,000 shares sold by us pursuant to the full exercise of the underwriters' option to purchase additional shares, in a follow-on public offering, resulting in net proceeds of $211.3 million, after deducting underwriting discounts and commissions and other offering expenses. In August 2021, we entered into an "at-the-market" sales agreement pursuant to which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $250.0 million. As of November 10, 2021, the issuance date of the condensed consolidated financial statements, we have not issued and sold any shares of our common stock pursuant to this sales agreement. As of September 30, 2021, we had cash, cash equivalents and marketable securities of $398.4 million.

Cash flows

The following table summarizes our sources and uses of cash for each of the periods presented:

(in thousands)	Nine Months Ended September 30, 2021	2020
Cash used in operating activities	$ (71,019)	$ (51,777)
Cash provided by (used in) investing activities	185,882	(225,547)
Cash provided by financing activities	214,236	320,798
Net increase in cash, cash equivalents and restricted cash	$ 329,099	$ 43,474

Operating activities

During the nine months ended September 30, 2021, operating activities used $71.0 million of cash, primarily resulting from our net loss of $88.2 million, offset by non-cash charges of $16.9 million and changes in our operating assets and liabilities of $0.3 million. Net cash used by changes in our operating assets and liabilities for the nine months ended September 30, 2021 consisted primarily of a $1.0 million increase in other noncurrent assets, offset by a $0.8 million decrease in accrued expense and other current liabilities and accounts payable and a $0.5 million decrease in prepaid expenses and other current assets.

During the nine months ended September 30, 2020, operating activities used $51.8 million of cash, primarily resulting from our net loss of $56.3 million and changes in our operating assets and liabilities of $3.0 million, both partially offset by non-cash charges of $7.6 million. Net cash used by changes in our operating assets and liabilities for the nine months ended September 30, 2020 consisted primarily of a $2.9 million increase in prepaid expenses and other current assets and a $0.8 million decrease in deferred rent, partially offset by a decrease of $0.4 million in tenant receivable.

Changes in accounts payable, accrued expenses and other current liabilities and prepaid expenses in the periods were generally due to growth in our business and the timing of vendor invoicing and payments. Changes in operating lease right-of-use-assets, operating lease liability, and deferred rent were primarily related to our adoption of the new lease accounting standard on January 1, 2021.

Investing activities

During the nine months ended September 30, 2021, net cash provided by investing activities was $185.9 million, due to the maturities of marketable securities of $188.9 million, partially offset by a $3.1 million increase in purchases of property and equipment during the period. During the nine months ended September 30, 2020, net cash used in investing activities was $225.5 million, due to the purchases of marketable securities and property and equipment during the period.

Property and equipment purchases during the nine months ended September 30, 2021 and 2020 were primarily related to leasehold improvements and lab equipment for our facility in Cambridge, Massachusetts.

Financing activities

During the nine months ended September 30, 2021, net cash provided by financing activities was $214.2 million, consisting primarily of proceeds from our follow-on public offering of common stock of $211.9 million, net of underwriting discounts and commissions, and proceeds of $3.3 million from the exercise of common stock options, partially offset by the payment of $0.9 million of public offering costs. During the nine months ended September 30, 2020, net cash provided by financing activities was $320.8 million, consisting primarily of proceeds from our IPO of common stock of $213.9 million, net of underwriting discounts and commissions, and proceeds from the sale of our Series C preferred stock of $108.9 million, partially offset by the payment of $3.2 million of public offering costs.

Funding requirements

We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we advance the preclinical activities and initiate clinical trials for our product candidates in development. The timing and amount of our operating expenditures will depend largely on:

- the identification of additional research programs and product candidates;
- the scope, progress, costs and results of preclinical and clinical development for any product candidates we may develop;
- the costs, timing and outcome of regulatory review of any product candidates we may develop;
- the cost and timing of clinical and commercial-scale manufacturing activities, including the build-out of our manufacturing facility;
- the costs and timing of future commercialization activities, including product manufacturing, marketing, sales and distribution, for any product candidates we may develop for which we receive marketing approval;
- the costs and scope of the continued development of our non-viral genetic medicine platform;
- the costs of satisfying any post-marketing requirements;
- the revenue, if any, received from commercial sales of product candidates we may develop for which we receive marketing approval;
- the costs and timing of preparing, filing and prosecuting applications for patents, obtaining, maintaining, defending and enforcing our intellectual property rights and defending against any intellectual property-related claims, including claims of infringement, misappropriation or other violation of third-party intellectual property;
- the costs of operational, financial and management information systems and associated personnel;
- the associated costs in connection with any acquisition of in-licensed products, intellectual property and technologies; and
- the costs of operating as a public company.

We believe that our existing cash, cash equivalents, and marketable securities will enable us to fund our operating expenses and capital expenditures into 2024. We have based our estimates as to how long we expect we will be able to fund our operations on assumptions that may prove to be wrong. We could use our available capital resources sooner than we currently expect, in which case we would be required to obtain additional financing, which may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We do not have any committed external source of funds. Accordingly, we will be required to obtain further funding through public or private equity offerings, debt financings, collaborations and licensing arrangements or other sources. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Any future debt financing into which we enter would result in fixed payment obligations and may involve agreements that include grants of security interests on our assets and restrictive covenants that limit our ability to take specific actions, such as incurring additional debt, making capital expenditures, granting liens over our assets, redeeming stock or declaring dividends, that could adversely impact our ability to conduct our business. Any debt financing or additional equity that we raise may contain terms that could adversely affect the holdings or the rights of our common stockholders.

If we are unable to raise sufficient capital as and when needed, we may be required to significantly curtail, delay or discontinue one or more of our research or development programs or the commercialization of any product candidate we may develop, or be unable to expand our operations or otherwise capitalize on our business opportunities. If we raise additional funds through collaborations or licensing arrangements with third parties, we may have to relinquish valuable rights to future revenue streams or product candidates or grant licenses on terms that may not be favorable to us.

See the "Risk Factors" section of this Quarterly Report and in our Annual Report for additional risks associated with our substantial capital requirements.

Critical Accounting Policies and Significant Judgments and Estimates

Our condensed consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States of America, or GAAP. The preparation of our condensed consolidated financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, costs and expenses and related disclosures and the disclosure of contingent assets and liabilities in our condensed consolidated financial statements. We base our estimates on historical experience, known trends and events and on various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ significantly from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our condensed consolidated financial statements appearing elsewhere in this Quarterly Report, we believe that the accounting policies related to accrued research and development expenses and stock-based compensation are those most critical to the judgments and estimates used in the preparation of our consolidated financial statements. There have been no material changes to our critical accounting policies and estimates from those disclosed in our financial statements and the related notes included in our Annual Report.

Off-Balance Sheet Arrangements

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

Recently Issued and Adopted Accounting Pronouncements

A description of recently adopted and recently issued accounting pronouncements that may potentially impact our financial position and results of operations is disclosed in Note 2 to our condensed consolidated financial statements included in this Quarterly Report.

Item 3. Quantitative and Qualitative Disclosures about Market Risks.

We are a smaller reporting company, as defined in Rule 12b-2 under the Exchange Act, for this reporting period and are not required to provide the information required under this item.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision and with the participation of our President and Chief Executive Officer and our Chief Financial Officer, our principal executive officer and principal financial and accounting officer, respectively, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2021. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls

and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any disclosure controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of September 30, 2021, our President and Chief Executive Officer and our Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

During the nine months ended September 30, 2021, we implemented certain internal controls as a result of our adoption of the new lease standard on January 1, 2021. There were no other changes in our internal control over financial reporting (as defined in Rules 13a–15(f) and 15d–15(f) under the Exchange Act) during the nine months ended September 30, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1A. Risk Factors.

The following information updates, and should be read in conjunction with, the risk factors discussed in Part I, Item 1A Risk Factors in our Annual Report, which could materially affect our business, financial condition, or future results.

Risks related to our financial position and need for additional capital

We have incurred significant losses since our inception, have no products approved for sale and we expect to incur losses over the next several years.

Since inception, we have incurred significant operating losses. Our net losses were $88.2 million and $56.3 million for the nine months ended September 30, 2021 and 2020, respectively. As of September 30, 2021, we had an accumulated deficit of $277.2 million. To date, we have funded our operations with the proceeds from instruments convertible into convertible preferred stock (which converted into convertible preferred stock in 2017), the sale of convertible preferred stock (which converted into common stock in 2020) and from the sale of common stock in our public offerings. We have devoted substantially all of our financial resources and efforts to research and development. We are still in the early stages of development of our product candidates, and we have not commenced or completed clinical development. We expect to continue to incur significant expenses and operating losses over the next several years. Our operating expenses and net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially as we:

- continue our current research programs and conduct additional research programs;
- advance any product candidates we identify into preclinical and clinical development;
- expand the capabilities of our proprietary non-viral genetic medicine platform;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- obtain, expand, maintain, defend and enforce our intellectual property portfolio;
- hire additional clinical, regulatory and scientific personnel;
- build out and maintain a commercial-scale cGMP-compliant manufacturing facility;
- ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- establish a commercial manufacturing source and secure supply chain capacity sufficient to provide commercial quantities of any product candidates we may develop for which we may obtain regulatory approval; and

- add operational, legal, compliance, financial and management information systems and personnel to support our research, product development, future commercialization efforts and operations as a public company.

Even if we obtain regulatory approval of and are successful in commercializing one or more of any product candidates we may develop, we will continue to incur substantial research and development and other expenditures to develop and market additional product candidates. 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 revenue.

Risks relating to manufacturing

We intend to build out and operate our own manufacturing facility, which will require significant resources. If we fail to successfully build out our facility on a timely basis or at all or fail to successfully operate our facility, our business will be materially harmed.

In July 2021, we entered into a lease for approximately 104,000 square feet to develop a cGMP-compliant facility in Waltham, Massachusetts at which we intend to operate our own manufacturing facility. The facility requires substantial build-out and there can be no assurance that we will complete such build-out in a timely manner or at all, and the costs of doing so may be greater than we anticipate. Any commercial manufacturing facility we develop will also require regulatory approval by the FDA, the European Medicines Agency, or EMA, or other regulatory agencies, which we may never obtain. Even if approved, we would be subject to ongoing periodic unannounced inspection by the FDA and corresponding state agencies to ensure strict compliance with cGMPs and other government regulations.

We also do not yet have sufficient information to reliably estimate the cost of the clinical and commercial manufacturing and processing of any product candidates we may develop at the new facility, and the actual cost to manufacture and process any product candidates we may develop could materially and adversely affect the commercial viability of such product candidates. In addition, the ultimate dose selected for clinical use and commercial supply will affect our ability to scale and our costs per dose. As a result, we may never be able to develop a commercially viable product.

We have limited experience in operating a manufacturing facility and managing the manufacturing process and it may be more difficult or more expensive than expected. Furthermore, we will need to hire additional personnel with such expertise. The manufacture of drugs and biologics is complex and requires significant expertise, including the development of advanced manufacturing techniques and process controls. Manufacturers of drugs and biologics often encounter difficulties in production, particularly in scaling and validating initial production and ensuring the absence of contamination. These difficulties may include those related to production costs and yields, quality control and quality assurance testing, stability of the product, operator error, shortages of qualified personnel, as well as difficulty in compliance with strictly enforced federal, state and foreign regulations. Additionally, we may not be able to achieve clinical or commercial manufacturing on our own to satisfy demands for any of our product candidates, if and when developed.

The application of any new regulatory guidelines or parameters may also adversely affect our ability to manufacture any product candidates we may develop. Furthermore, if contaminants are discovered in our supply of such product candidates or in the manufacturing facility, the facility may need to be closed for an extended period of time to investigate and remedy the contamination, which could delay clinical development of our programs and impair our ability to sell any product candidates we develop commercially. We cannot assure you that any stability or other issues relating to the manufacture of our product candidates will not occur in the future.

In connection with operating our own manufacturing facility, we will assume responsibility for storing and shipping any manufactured materials, and we may fail to manage the logistics of storing and shipping any product candidates we may develop. Storage failures and shipment delays and problems caused by us, our vendors or other factors not in our control, such as weather or global supply chain and shipping challenges, could result in loss of usable product or prevent or delay the delivery of such product candidates to patients. We may also experience manufacturing difficulties due to resource constraints and, as a result, our ability to provide any product candidates we may develop to patients could be jeopardized.

The manufacture of genetic medicine products is complex and difficult and is subject to a number of scientific and technical risks, some of which are common to the manufacture of drugs and biologics and others of which are unique

to the manufacture of genetic medicines. We could experience manufacturing problems that result in delays in our development or commercialization programs.

Genetic medicine drug products are complex and difficult to manufacture. We have established a cGMP-ready cell (Sf9)-based process to produce ceDNA at the 200-liter scale that we have successfully transferred to a CDMO to supply research material. Additionally, we intend to build out and operate our own manufacturing facility to scale ceDNA manufacturing utilizing RES for additional research material as well as cGMP-compliant clinical and initial commercial supply. We plan to continue partnering with CDMOs during and after construction of our new manufacturing facility to ensure redundancy, secure additional ceDNA supply and provide materials needed for commercial supply.

A number of risk factors common to the manufacturing of biologics and drugs could also cause production issues or interruptions for our genetic medicines, including raw material or starting material variability in terms of quality, cell line viability, productivity or stability issues, shortages of any kind, shipping, distribution, storage and supply chain failures, growth media contamination, equipment malfunctions, operator errors, facility contamination, labor problems, natural disasters, disruption in utility services, terrorist activities, pandemics, or acts of god that are beyond our or our contract manufacturer's control. It is often the case that early-stage process development is conducted with materials that are not manufactured using cGMP starting materials, techniques or processes and which are not subject to the same level of analysis that would be required for clinical grade material. We may encounter difficulties in translating the manufacturing processes used to produce research grade materials to cGMP-compliant processes or scaling our manufacturing to sufficient levels and any changes in the manufacturing process may affect the safety and efficacy profile of our product candidates.

Given the nature of biologics manufacturing, there is a risk of contamination during manufacturing. Any contamination could materially harm our ability to produce product candidates on schedule and could harm our results of operations and cause reputational damage. Some of the raw materials that we anticipate will be required in our manufacturing process are derived from biologic sources. Such raw materials may be difficult to procure and may be subject to contamination or recall. A material shortage, contamination, recall or restriction on the use of biologically derived substances in the manufacture of any product candidates we may develop could adversely impact or disrupt the commercial manufacturing or the production of clinical material, which could materially harm our development timelines and our business, financial condition, results of operations and prospects.

Our non-viral genetic medicine platform and RES are novel, and the combination of novel manufacturing process and constructs with development of the process at larger scale may cause us to experience delays in satisfying regulatory authorities or production problems that result in delays in our development or commercialization programs, limit the supply of any product candidates we may develop or otherwise harm our business.

Our non-viral genetic medicine platform and RES are each novel, and the manufacture of products on the basis of our platform and RES is untested at a large scale. Our preclinical studies to date have been completed using a different manufacturing process than RES and we may not achieve the same results when we transition to RES. Problems with the manufacturing process, even minor deviations from the normal process, could result in product defects or manufacturing failures that result in lot failures, product recalls, product liability claims, insufficient inventory or potentially delay progression of our preclinical or clinical development of any product candidates we may develop. If we successfully develop product candidates, we may encounter problems achieving adequate quantities and quality that meet FDA, EMA or other comparable applicable foreign standards or specifications with consistent and acceptable production yields and costs and the regulatory review and approval process may be more expensive or take longer than for other product candidates that may be produced using manufacturing processes with which such regulatory agencies are more familiar. The ability to scale our manufacturing and maintain the manufacturing process at the same levels of quality and efficacy that we are currently manufacturing is yet to be tested. If we or our CDMOs are unable to scale our manufacturing at the same levels of quality and efficiency, we may not be able to supply the required number of doses for clinical trials or commercial supply, and our business could be harmed.

Item 6. Exhibits.

Exhibit Number	Description of Exhibit
10.1*	Lease, dated July 13, 2021, by and between the registrant and Zinc II PropCo 2020, LLC.
31.1*	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1**	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2**	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

* Filed herewith.

** Furnished herewith.

SIGNATURES

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

GENERATION BIO CO.

Date: November 10, 2021

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

Date: November 10, 2021

By: /s/ Matthew Norkunas
Matthew Norkunas, M.D., M.B.A.
Chief Financial Officer
(Principal Financial and Accounting Officer)

XBRL-Only Content Section

41 SEYON STREET
WALTHAM, MASSACHUSETTS

Lease to

GENERATION BIO CO.

INDEX TO LEASE

EXHIBITS

INDENTURE OF LEASE

41 SEYON STREET

THIS INDENTURE OF LEASE (this "Lease") made as of the 13th day of July, 2021 (the "Effective Date"), by and between ZINC II PROPCO 2020, LLC, a Delaware limited liability company, having a mailing address c/o Hilco Redevelopment Partners, 99 Summer Street, Suite 1110, Boston, Massachusetts 02110 (hereinafter referred to as the "Landlord"), of the one part, and the tenant named in Section 1.1(a) below (hereinafter referred to as the "Tenant"), of the other part.

W I T N E S S E T H:

ARTICLE I

Basic Data

Section 1.1

The following sets forth basic data hereinafter referred to in this Lease, and, where appropriate, constitute definitions of the terms hereinafter listed.

(a) Tenant: Generation Bio Co., a Delaware corporation.

(b) Present Mailing Address of Tenant: 301 Binney Street, Suite 401, Cambridge, MA 02142

(c) Tenant's E-mail Address (for information regarding billings and statements): [**]

(d) Commencement Date. The later to occur of (i) June 1, 2022, and (ii) the date upon which all of the Landlord's Delivery Work (as defined in Section 7.1 below) shall have been substantially completed, subject to any Net Landlord Delay Days or Net Tenant Delay Days, as the case may be (as such terms are defined in Section 7.1(a)).

(e) Term or Lease Term: The period from the Commencement Date and expiring on last day of the month in which the twelfth (12th) anniversary of the Rent Commencement Date occurs, unless sooner terminated as provided herein (the "Expiration Date").

(f) Extension Options: Two (2) periods of five (5) years each as provided in and on the terms set forth in Section 3.3 hereof.

(g) Lease Year: Commencing as of the Rent Commencement Date, or as of any anniversary of the Rent Commencement Date, the successive twelve (12) month period in which any part of the Lease Term occurs.

(h) Rent Commencement Date: Three (3) months after the Commencement Date.

(i) Annual Fixed Rent: During the Lease Term, Annual Fixed Rent with respect to the Premises (as defined in Section 2.1) shall be payable by Tenant as follows:

Lease Year	Annual Fixed Rent Rate Per RSF Per Annum	Annual Fixed Rent	Monthly Fixed Rent
1*	$70.00	$ 5,250,000.00	$437,500.00
2	$72.10	$ 7,498,400.00	$624,866.67
3	$74.26	$ 7,723,352.00	$643,612.67
4	$76.49	$ 7,955,052.56	$662,921.05
5	$78.78	$ 8,193,120.00	$682,760.00
6	$81.14	$ 8,438,913.60	$703,242.80
7	$83.58	$ 8,692,700.72	$724,391.73
8	$86.09	$ 8,953,481.74	$746,123.48
9	$88.67	$ 9,222,086.19	$768,507.18
10	$91.33	$ 9,498,748.78	$791,562.40
11	$94.07	$ 9,783,711.24	$815,309.27
12	$96.89	$10,076,778.40	$839,731.58

*For Lease Year 1, Annual Fixed Rent only is to be determined based on 75,000 rentable square feet.

(j) Permitted Use: Subject to Legal Requirements (as defined in Section 11.7), general office, research and development and laboratory uses, vivarium uses (limited to the Animal Use, as defined in Section 11.1(c)) within the Permitted Vivarium Area (as defined in Section 11.1(c)) only, and light manufacturing and general manufacturing and production uses. Notwithstanding the provisions of this Lease, under no circumstances shall Tenant use or occupy the Premises or

any part thereof in a manner that includes activities that would qualify or be characterized or categorized as any laboratory biosafety level ("BSL") other than BSL1 or BSL2.

(k) Landlord's Contribution: $26,000,000.00 (i.e., $250.00 per rentable square foot of the Premises).

(l) Tenant's Proportionate Share:

(i) With respect to Operating Costs: 37.44% (i.e., 104,000 rentable square feet as the numerator and 277,749 rentable square feet of the Building as the denominator) with respect to Operating Costs allocable solely to the Property; and 25.56% (i.e., 104,000 rentable square feet as the numerator and 406,807 rentable square feet of the Project as the denominator) (the "Tenant's Project Share") of shared or common area Operating Costs for the Project (the "Project Shared Expenses"). The Tenant's Project Share shall be adjusted proportionally by Landlord by any increases or decreases in the rentable area of the Project, which, as of the date of this Lease is 406,807 rentable square feet. In addition, Landlord may, on a good faith

basis, equitably allocate the Project Shared Expenses among the Building and other portions of the Project based upon proportionate usage of the shared facilities, as reasonably be determined by Landlord, and Tenant's Project Share of such allocated Project Shared Expenses shall be adjusted based on the portion of the Project to which the same is allocated. Nothing herein shall increase Tenant's proportionate share in the event of any vacancy of any portion of the Project.

(ii) With respect to Taxes: 25.56% (i.e., 104,000 rentable square feet as the numerator and 406,807 rentable square feet of the Project as the denominator). Tenant's Proportionate Share for Taxes shall be adjusted proportionally by any increases or decreases in the rentable area of the Project or of the tax parcel of which the Building is a part.

(m) Security Deposit: $3,640,000.00 in the form of a Letter of Credit, provided that if no Event of Default has occurred prior to the applicable reduction date below, then pursuant and subject to the terms and conditions set forth in Section 20.29 below, such sum shall be reduced to $2,426,666.67 from and after the 4th anniversary of the Rent Commencement Date, and further reduced to $0.00 from and after the 8th anniversary of the Rent Commencement Date.

ARTICLE II

The Premises

Section 2.1– Demise.

(a) Landlord hereby leases to Tenant and Tenant hereby leases from Landlord, upon and subject to the terms and provisions of this Lease, the premises shown on Exhibit A-1 hereto annexed and made a part hereof which shall be deemed to be approximately 104,000 rentable square feet on the first (1st) floor of the Building ("Premises"). Notwithstanding the foregoing, in the event that Tenant adds any occupiable mezzanine space to the Premises (which, for the purposes hereof, shall mean space which is designed for occupancy by Tenant's personnel, exclusive of any mezzanine space that is designed for Tenant's or other building equipment, systems, files, storage or similar areas) as part of the Tenant Improvements or any subsequent Alterations, there shall be no adjustment in the foregoing rentable square footage of the Premises nor the Annual Fixed Rent, Tenant's Proportionate Share and other terms of this Lease based on the rentable square footage of the Premises to account for such addition of mezzanine space; provided, however, Tenant shall not add more than 8,000 square feet of occupiable mezzanine space in the aggregate without Landlord's prior written consent. The Premises are located in the building which Landlord and Tenant stipulate contains 277,749 rentable square feet (the "Building") on a parcel of land at 41 Seyon Street, Waltham, Massachusetts (collectively with the Building, the "Property"), which Property is a portion of a life science campus which also includes other properties, including the buildings and other improvements thereon, to the extent owned or controlled by Landlord or its affiliates from time to time (together with the Property,

such properties and buildings owned by Landlord or its affiliates to the extent the same is operated collectively as a life science campus, as the same may be expanded or reduced from time to time in Landlord's discretion, the "Project"). As of the date of this Lease, the Project consists of the Property and the additional property with a building located thereon at 43 Foundry Avenue, Waltham, Massachusetts, all as shown on the site plan attached hereto as Exhibit B.

(b) As appurtenant to the Premises, Tenant shall have the non-exclusive right to all of the common areas of the Project, and not less than Tenant's Proportionate Share, to the extent applicable, of any ducts, shafts, conduits, utility lines, pipes, shafts, chases, corridors and other portions of the Building or the Project necessary to serve and access the Premises.

(c) As appurtenant to the Premises, Tenant shall have the exclusive right to use and control of the following "Exclusive Use Areas":

(i) the "Exclusive Loading Area" as depicted on Exhibit A-2 attached hereto, for loading and unloading purposes only;

(ii) the "Exclusive Outdoor Seating Area" as depicted on Exhibit A-3 attached hereto, for outdoor seating purposes only;

(iii) the south side entrance and vestibule of the Building; and

(iv) the portions of the parking area shown as "Tenant's Exclusive Parking" as described on Exhibit A-4 attached hereto, for parking by Tenant's employees and Shared Users (as defined in Section 8.7(c)) only (it being acknowledged and agreed that there shall be no parking of trailers on the Property).

(d) Excepting and reserving to Landlord the roof and exterior walls of the Building of which the Premises are a part; and further reserving to Landlord the right to replace and maintain and repair all existing structural supports, ducts, shafts, conduits, utility lines, pipes and the like in, over and upon the Premises as may have been installed by Landlord in, on or under said Building.

ARTICLE III

Term of Lease

Section 3.1– Term.

TO HAVE AND TO HOLD the Premises unto Tenant for the term specified in Section 1.1(e) hereof unless sooner terminated as provided herein.

Section 3.2– Commencement Date.

(a) The Term of this Lease shall commence on the Commencement Date.

Notwithstanding anything to the contrary in this Lease, Landlord agrees to allow Tenant to have reasonable access to the Premises after the full execution of this Lease in order to perform its Tenant Improvements, install its furniture, fixtures and equipment, and perform similar other work to prepare the Premises for Tenant's move-in and start-up of business operations, all such work subject to obtaining Landlord's prior approval of any plans and specifications relating thereto as more particularly set forth, and to the extent required, in Article VII and Article XII hereto, and provided such work shall not delay or interfere with the performance of the Landlord's Delivery Work (as defined in Section 7.1) by Landlord. Landlord and Tenant shall together coordinate and cooperate so that Tenant's performance of its Tenant Improvements and installation of its furniture, fixtures and equipment shall be coordinated based upon a mutually agreed upon schedule to minimize any delay or interference with the performance of Landlord's Delivery Work and to minimize any delay or interference with the performance of Tenant's Improvements. Prior to any such entry onto the Premises, Tenant shall deliver to Landlord certificates of insurance evidencing the coverages required under the Lease. Entry onto of the Premises by Tenant prior to the Commencement Date shall be subject to all of the provisions of this Lease excepting only those requiring the payment of Annual Fixed Rent and Additional Rent. Such right of entry shall be deemed a license from Landlord to Tenant, and any entry thereunder shall be at the risk of Tenant. For the avoidance of doubt, any delays caused in the completion of Landlord's Delivery Work arising directly or indirectly from the entry by Tenant to the Premises pursuant to the provisions hereof shall be deemed a Tenant Delay (as defined in Section 7.1).

Section 3.3– Extension Option.

(a) On the condition (which condition Landlord may waive in its sole discretion by written notice to Tenant) that at the time of exercise of the applicable Extension Option (i) there exists no Event of Default (as defined in Section 19.1) which shall not have been cured, (ii) this Lease is still in full force and effect, and (iii) the initially named Tenant or any Permitted Transferee (or an approved assignee) then occupies at least fifty percent (50%) of the entirety of the initially demised Premises, then Tenant shall have the right (each an "Extension Option") to extend the Term hereof upon all the same terms, conditions, covenants and agreements herein contained (except as expressly set forth in this Section 3.3 and Section 3.4) for two (2) periods of five (5) years each (each, an "Extended Term"). Notwithstanding any provision of this Lease to the contrary, except as expressly set forth in Section 3.4(d), Landlord has no obligation to make any additional payment to Tenant in respect of any construction allowance or the like or to perform any work to the Premises as a result of the exercise by Tenant of any such Extension Option, and the Prevailing Market Rent shall be determined on a "net effective basis" to account for the absence of such payments by Landlord as provided in Section 3.4(d) below. Upon request by Tenant, Landlord shall provide to Tenant, not less than 30 days prior to the last date to exercise an applicable Extension Option, Landlord's quotation of the Annual Fixed Rent for the applicable Extended Term.

(b) To exercise each Extension Option, Tenant shall give written notice (each, an "Extension Exercise Notice") to Landlord exercising such Extension Option, no later than twelve (12) and no earlier than fifteen (15) months prior to the then expiration of the Lease Term.

Within thirty (30) days after receipt of the Extension Exercise Notice, Landlord shall give to Tenant a quotation of the proposed Annual Fixed Rent for the Extended Term ("Landlord's Rent Quotation"). If at the expiration of thirty (30) days after the date when Landlord provides such quotation to Tenant, as may be extended by mutual written agreement if the parties are proceeding in good faith (as may be so extended, the "Negotiation Period"), Landlord and Tenant have not reached agreement on a determination of an Annual Fixed Rent for such Extended Term and executed a written instrument extending the Term of this Lease pursuant to such agreement, either Tenant or Landlord may make a request in writing that the Prevailing Market Rent (as defined in Section 3.4) for such Extended Term be determined by the arbitration process set forth below in Section 3.4 (the "Arbitration"). If either of such parties makes such a written request, the Annual Fixed Rent for such Extended Term shall be the Prevailing Market Rent (including escalations) as determined by the Arbitration.

(c) Upon the timely giving of the Extension Exercise Notice then this Lease and the Lease Term hereof shall automatically be deemed extended, for the applicable Extended Term upon all of the agreements, terms, covenants and conditions of this Lease except as expressly set forth herein, without the necessity for the execution of any additional documents, except that Landlord and Tenant agree to enter into an instrument in writing setting forth the Annual Fixed Rent for the applicable Extended Term as determined in the relevant manner set forth in this Section 3.3 and in Section 3.4; and in such event all references herein to the Lease Term or the Term of this Lease shall be construed as referring to the Lease Term, as so extended, unless the context clearly otherwise requires, and except that there shall be no further option to extend the Lease Term after the exercise, if applicable, of the second Extension Option. If Tenant fails to give a timely Extension Exercise Notice, then Tenant shall have no further right to extend the Term of the Lease pursuant to this Section 3.3.

Section 3.4–Determination of Prevailing Market Rent by Arbitration.

In the event a request for an Arbitration of Prevailing Market Rent is made pursuant to the terms of Section 3.3, the following terms and conditions shall apply:

(a) Request For Arbitration. If either party shall send a notice to the other party requesting an Arbitration of the Prevailing Market Rent (including escalations), such notice must (i) make explicit reference to the Lease and to the specific section of the Lease pursuant to which said request is being made, (ii) include the name of an appraiser selected by such party, which appraiser must be a Qualified Appraiser (as hereinafter defined), and (iii) explicitly state that the other party is required to give notice within ten (10) business days of an additional appraiser selected by such other party. A "Qualified Appraiser" means an appraiser certified as an MAI appraiser or as an ASA Appraiser with at least ten (10) years' experience as a commercial and life science real estate appraiser with working knowledge of current rental rates and practices in life science commercial properties in the Watertown, Massachusetts and Waltham, Massachusetts market areas (the "Market Area"). For purposes hereof, an "MAI" appraiser means an individual who holds an MAI designation conferred by, and is an independent member of, the American Institute of Real Estate Appraisers (or its successor organization, or in the event there is no successor organization, the organization and designation most similar), and an "ASA" appraiser means an individual who holds the Senior Member designation conferred by, and is an

independent member of, the American Society of Appraisers (or its successor organization, or, in the event there is no successor organization, the organization and designation most similar).

(b) Response to Request For Arbitration. Within ten (10) business days after receipt of a party's notice requesting Arbitration and stating the name of the appraiser selected by such requesting party, the other party shall give written notice to the requesting party of such other party's selection of an appraiser having at least the qualifications referred to above.

(c) Rental Value Determination. Within ten (10) days after selection of both appraisers, the two (2) appraisers so selected shall deliver to both Landlord and Tenant their respective written determinations of the Prevailing Market Rent (each, a "Final Determination"). If the two (2) appraisers so appointed agree on the Prevailing Market Rent, the Prevailing Market Rent shall be the amount so determined. If the two (2) appraisers so appointed do not agree on the Prevailing Market Rent, the two (2) appraisers shall within ten (10) days thereafter jointly appoint a third (3rd) impartial appraiser (the "Neutral Appraiser") also having at least the qualifications referred to above. The Neutral Appraiser, within thirty (30) days after its appointment, shall make a determination of the Prevailing Market Rent by selecting either the amount in Landlord's Final Determination or the amount set forth in Tenant's Final Determination, whichever the Neutral Appraiser determines is the Prevailing Market Rent for the Premises. The Neutral Appraiser may not select any other amount as the Prevailing Market Rent. The determination made by the Neutral Appraiser hereunder shall be final and binding on both Landlord and Tenant.

(d) Prevailing Market Rent. The "Prevailing Market Rent" shall mean the fixed annual rent (which may provide for annual increases in rent during said Extended Term) that a willing lessee would pay and a willing lessor would accept in an arms' length negotiation for comparable space, for a tenant of comparable credit, in comparable laboratory and life science buildings in the Market Area during the Extended Term, and shall take into account all relevant factors, including, without limitation, improvement allowances, brokerage commissions and all other applicable terms and conditions of the tenancy in question. Landlord shall have no obligation to make or pay for any improvements to the Premises or to pay any allowances or inducements of any kind, and the lack of any such costs or concessions shall merely be reflected in the determination of Prevailing Market Rent on a net effective rent basis based upon improvements, allowances or inducements then generally in effect for similar transactions.

(e) Costs. Each party shall pay the costs and expenses of the appraiser selected by it and each shall pay one half (1/2) of the costs and expenses of the Neutral Appraiser, if applicable.

(f) Failure to Select Appraiser or Failure of Appraiser to Serve. If a party shall have requested an Arbitration and the other party shall not have designated an appraiser within the time period provided therefor above and such failure shall continue for more than ten (10) days after notice thereof, then the requesting party's appraiser shall alone make the determination of the Prevailing Market Rent in writing to Landlord and Tenant within thirty (30) days after the expiration of the other party's right to designate an appraiser hereunder. If Tenant and Landlord have both designated appraisers but the two appraisers so designated do not, within a period of fifteen (15) days after the appointment of the second appraiser, agree upon and designate the

Neutral Appraiser willing so to act, Tenant, Landlord or either appraiser previously designated may request the Boston Bar Association (or such organization as may succeed to the Boston Bar Association) to designate the Neutral Appraiser willing so to act and an appraiser so appointed shall, for all purposes, have the same standing and powers as though he had been reasonably appointed by the appraisers first appointed. In case of the inability or refusal to serve of any person designated as an appraiser, or in case any appraiser for any reason ceases to be such, an appraiser to fill such vacancy shall be appointed by Tenant, Landlord, or the appraisers first appointed or the Boston Bar Association (or such organization as may succeed to the Boston Bar Association), as the case may be, whichever made the original appointment, or if the person who made the original appointment fails to fill such vacancy, upon application of any appraiser who continues to act or by Landlord or Tenant such vacancy may be filled by the Boston Bar Association (or such organization as may succeed to the Boston Bar Association), and any appraiser so appointed to fill such vacancy shall have the same standing and powers as though originally appointed.

ARTICLE IV

Annual Fixed Rent

Section 4.1– Annual Fixed Rent.

(a) Tenant agrees to pay to Landlord, commencing on the Rent Commencement Date, and thereafter monthly, in advance, on the first day of each and every calendar month during the original Lease Term, a sum equal to one-twelfth (1/12th) of the Annual Fixed Rent specified in Section 1.1 hereof and on the first day of each and every calendar month during each Extended Term (if exercised), a sum equal to one-twelfth of the Annual Fixed Rent as determined pursuant to Section 3.3 and Section 3.4 for the applicable Extended Term (all without offset or abatement except as otherwise expressly provided in this Lease). Until notice of some other designation is given, Annual Fixed Rent and all other charges for which provision is herein made shall be paid to Landlord at its office in Boston, Massachusetts set forth on page 1 of this Lease.

(b) Annual Fixed Rent for any partial month shall be paid by Tenant to Landlord at such rate on a pro rata basis, and, if the Rent Commencement Date shall be other than the first day of a calendar month, the first payment of Annual Fixed Rent which Tenant shall make to Landlord shall be a payment equal to a proportionate part of such monthly Annual Fixed Rent for the partial month from the Rent Commencement Date to the first day of the succeeding calendar month.

(c) Additional Rent (as defined in Section 20.8 hereof) payable by Tenant on a monthly basis as provided in this Lease, likewise shall be prorated for any partial month of the Lease Term.

(d) Notwithstanding that the payment of Annual Fixed Rent payable by Tenant to Landlord shall not commence until the Rent Commencement Date, Tenant shall be subject to, and shall comply with, all other provisions of this Lease as and at the times provided in this Lease. Tenant's obligation to pay Additional Rent shall commence on the Rent Commencement Date, except that Tenant's obligation to pay for utilities for the Premises shall commence on the

earlier of (i) the Commencement Date or (ii) the date upon which Tenant occupies the Premises and commences the regular conduct of business operations in the Premises. Annual Fixed Rent, Additional Rent and all other charges payable under this Lease shall be paid by Tenant to Landlord in lawful money of the United States in immediately available funds and without notice or demand and with setoff, deduction or abatement, except as otherwise expressly set forth in this Lease.

Section 4.2– Late Payment.

If Landlord shall not have received any payment or installment of Annual Fixed Rent or Additional Rent (the "Outstanding Amount") on or before three (3) business days following the date that such amount is past due (the "Due Date"), the amount of such payment or installment shall incur a late charge equal to the sum of: (a) two percent (2%) of the Outstanding Amount ("Late Fee") if Tenant shall have been late more than one (1) time in the then current Lease Year, and (b) interest on the Outstanding Amount from the Due Date through and including the date such payment or installment is received by Landlord, at the Default Rate (as defined in Section 20.20). Such Late Fee and interest shall be deemed Additional Rent and shall be paid by Tenant to Landlord upon demand.

ARTICLE V

Additional Rent – Taxes

Section 5.1– Definitions.

The term "Taxes" is hereby defined to mean all general and special taxes, including existing and future assessments for road, sewer, utility and other local improvements and other governmental charges which may be lawfully charged, assessed, or imposed upon or allocable to the Property and/or the Project by the applicable governmental authority. There shall be excluded from such taxes interest or penalties on late payment of real estate taxes, all income, estate, succession, gift, inheritance, corporate excise and transfer taxes; provided, however, that if at any time during the Lease Term the present system of ad valorem taxation of real property shall be changed so that in lieu of, or in addition to, the whole or any part of the ad valorem tax on real property, there shall be assessed on Landlord a tax on the gross rents received with respect to the Property and/or the Project, or a Federal, State, County, Municipal, or other local income, franchise, excise or similar tax, assessment, levy or charge (distinct from any now in effect in the jurisdiction in which the Property is located) measured by or based, in whole or in part, upon any such gross rents, then any and all of such taxes, assessments, levies or charges, to the extent so measured or based, shall be deemed to be included within the term "Taxes" if the same is to fund the same services currently provided by Taxes. Landlord shall pay, or cause to be paid, before the same become delinquent, all Taxes, provided however, that if authorities having jurisdiction assess Taxes which Landlord deems excessive, Landlord may defer compliance therewith to the extent permitted by the laws of the State so long as the validity or amount thereof is contested by Landlord in good faith and so long as Tenant's occupancy of the Premises is not disturbed or threatened. Notwithstanding the foregoing, "Taxes" shall not include and Tenant shall not be required to pay any portion of any tax or assessment expense or any increase therein (a) levied on Landlord's rental income, unless such tax or assessment is imposed in lieu of or as a

substitute, either in whole or in part, for Taxes as set forth above, (b) in excess of the amount which would be payable if such tax or assessment expense were paid in installments over the longest permitted term.

Section 5.2– Personal Property Taxes.

Tenant shall pay all taxes which may be lawfully charged, assessed, or imposed upon all of Tenant's fixtures and equipment of every type and also upon all of Tenant's personal property in the Premises, and Tenant shall pay all license fees and other charges which may lawfully be imposed upon the business of Tenant conducted upon the Premises.

Section 5.3– Tenant's Proportionate Share of Taxes.

(a) From and after the Rent Commencement Date, Tenant shall, on account of each tax year that occurs during the remainder of the Term of this Lease, pay to Landlord, as Additional Rent, Tenant's Proportionate Share of the Taxes for the Project such tax year.

(b) If in the future the Property or the Building is separately assessed, Tenant's Proportionate Share of Taxes shall be recalculated for the Building and/or the Property to take into account such separate assessment, as well as Tenant's Proportionate Share of Taxes for the Project, as equitably determined by Landlord. Tenant's Proportionate Share of Taxes shall also be equitably adjusted for and with respect to the first and last partial tax years (if any) of the term of this Lease. Where the applicable tax bills and computations are not available prior to the end of the term hereof, then a tentative computation shall be made on the basis of the previous year's Taxes payable by Tenant, with a final adjustment to be made between Landlord and Tenant promptly after all bills and computations are available for such period. Landlord shall provide to Tenant copies of all Tax bills upon request.

(c) Tenant's Proportionate Share of Taxes shall be due and payable within thirty (30) days after receipt by Tenant of Landlord's invoice. However, Tenant shall make monthly tax deposits with Landlord in an amount equal to one-twelfth (1/12th) of the annual Tenant's Proportionate Share of Taxes as reasonably estimated by Landlord (taking into account relevant factors including the prior year's Taxes), with a final adjustment to be made between the parties as soon as Tenant's Proportionate Share has been determined. Accordingly, if the amounts paid by Tenant to Landlord on account of Tenant's Proportionate Share of Taxes exceeded the amounts to which Landlord was entitled hereunder, or that Tenant is entitled to a credit with respect to Tenant's Proportionate Share of Taxes, Landlord shall refund to Tenant the amount of such excess within thirty (30) days after notice of such determination. Similarly, if the amounts paid by Tenant to Landlord on account of Tenant's Proportionate Share of Taxes were less than the amounts to which Landlord was entitled hereunder, then Tenant shall pay to Landlord, as Additional Rent, the amount of such deficiency within thirty (30) days after notice of such determination.

(d) In every case, Taxes shall be adjusted to take into account any abatement or refund thereof paid to Landlord by the appropriate authorities, less all of Landlord's reasonable out of pocket costs of securing such abatement or refund (Landlord having the sole right to contest Taxes, but Landlord agrees to contest Taxes upon the reasonable request of Tenant).

Landlord shall use reasonable efforts to provide Tenant copies of each annual tax assessment or re-assessment notice promptly upon receipt. If Landlord shall elect to negotiate or contest such Taxes, Landlord shall be entitled to bill Tenant for Tenant's Proportionate Share of the reasonable out of pocket costs and expenses thus incurred by Landlord as and when the same are incurred, and the same shall constitute part of such Taxes. To the extent that Landlord has so billed and received from Tenant payment of such costs and expenses, the same shall not be deducted as aforesaid from the abatement or refund, if any, ultimately received with respect thereto.

ARTICLE VI

Intentionally Omitted

ARTICLE VII

Condition of the Premises

Section 7.1– Tenant Improvements.

(a) Landlord, at Landlord's sole cost, shall (a) perform the work necessary to separate those utilities that will be separately metered to Tenant, (b) construct the Exclusive Loading Area as shown on Exhibit A-2 attached hereto, and (c) perform the Roof Work (as defined in Section 7.1(e)) (collectively, the "Landlord's Delivery Work"). Landlord shall use commercially reasonable efforts to substantially complete the Landlord's Delivery Work on or before the Commencement Date, subject to any Tenant Delays and any force majeure events. Landlord's Delivery Work shall be completed in a good and workmanlike manner, with Building standard materials, quantities and finishes, and in compliance with all applicable Legal Requirements. Landlord shall use commercially reasonable efforts to deliver possession of the Premises with Landlord's Delivery Work substantially complete on or before April 1, 2022 (the "Anticipated Delivery Date"). If the Commencement Date does not occur within sixty (60) days following the Anticipated Delivery Date, as extended for any Tenant Delays and force majeure events (as may be so extended, the "Outside Delivery Date"), then Tenant shall be entitled to a Rent credit equal to one day of free Rent for each day that the Commencement Date is delayed beyond the Outside Delivery Date. As used in this Lease, "Tenant Delay" shall mean any delay in the performance of the work required by Landlord pursuant to this Section 7.1 arising out of or resulting from the following: (i) any delay and/or default on the part of Tenant or its agents, engineers, architects, or contractors, (ii) any material interference with the performance of the Landlord's Delivery Work caused by Tenant or any of its agents, engineers, architects, or contractors, or (iii) any other action or inaction by Tenant or any of Tenant's agents, engineers, architects, or contractors. In order to make a valid Tenant Delay claim, Landlord must give Tenant written notice of the same within ten (10) days after the occurrence of such Tenant Delay. Except for the Landlord's Delivery Work, Landlord shall deliver the Premises to Tenant on the Effective Date in the "Delivery Condition", which shall mean in its "**AS IS**," "**WHERE IS**" condition, vacant and free of other tenants and occupants. As used in this Lease, "Landlord Delay" shall mean any delay in the performance of the work required by Tenant pursuant to this Section 7.1 arising out of or resulting from the following: (i) any delay and/or default on the part of Landlord or its agents, engineers, architects, or contractors, (ii) any interference with the performance of the Tenant Improvements caused by Landlord or any of its agents, engineers, architects, or

contractors, including completion of the common hallway area in coordination with the completion of the Tenant Improvements, or (iii) any other action or inaction by Landlord or any of Landlord's agents, engineers, architects, or contractors. In order to make a valid Landlord Delay claim, Tenant must give Landlord written notice of the same within ten (10) days after the occurrence of such Landlord Delay. If the total number of days of Landlord Delay exceeds the total number of days of Tenant Delay, the number of such excess days shall be referred to herein as the "Net Landlord Delay Days". If the total number of days of Tenant Delay exceeds the total number of days of Landlord Delay, the number of such excess days shall be referred to herein as the "Net Tenant Delay Days". Notwithstanding anything to the contrary, in the event of any Net Landlord Delay Days, the Rent Commencement Date shall be extended by the number of Net Landlord Delay Days, but in the event of any Net Tenant Delay Days, the Rent Commencement Date shall be accelerated by the number of Net Tenant Delay Days.

(b) As of the date hereof, Tenant has submitted to Landlord a test-fit plan showing the Tenant Improvements which is attached hereto as Exhibit C (the "Test-Fit Plan") which Test Fit Plan has been conceptually approved by Landlord. On or before sixty (60) days following the Effective Date, Tenant shall submit to Landlord construction plans and specifications for the improvements to be installed in the Premises by Tenant (the "Tenant Improvements"). All such plans and specifications shall be subject to Landlord's approval, which shall not be unreasonably withheld, conditioned or delayed so long as the proposed work does not materially adversely affect the exterior, structural elements or systems of the Building. Landlord will use reasonable efforts to deliver notice of its approval or a statement of its objections (which shall specify in reasonable detail the nature and grounds for such objections) to Tenant's construction plans and specifications (or any revisions or changes thereof) within ten (10) days after Landlord's receipt thereof. In the event that Landlord fails to respond within such ten (10) day period, Tenant may deliver a second written notice, which second written notice shall include the following language in all caps, "**ATTENTION: FAILURE BY LANDLORD TO RESPOND WITHIN FIVE (5) DAYS OF RECEIPT OF THIS NOTICE SHALL CONSTITUTE DEEMED APPROVAL BY LANDLORD OF THE SUBJECT OF THIS NOTICE**" (any such second written notice with such required language, a "Deemed Approval Reminder"), and if Landlord fails to respond within five (5) days of Landlord's receipt of such Deemed Approval Reminder, then Landlord's approval of such construction plans and specifications shall be deemed granted. The construction plans and specifications approved by Landlord are referred to in this Lease as the "Tenant Improvement Plans". After obtaining Landlord's approval, the Tenant Improvement Plans shall not be materially changed without Landlord's approval, which approval shall not be unreasonably withheld, conditioned or delayed so long as the proposed change does not materially adversely affect the exterior, structural elements or systems of the Building. Together with any comments to the Test Fit Plan and/or the Tenant Improvement Plans, Landlord shall notify Tenant which, if any, portions of such plans Landlord has identified as "Specialty Improvements" (as defined in Section 12.1(c)), which Tenant will either (i) remove at the end of the Term, or (ii) pay for the cost of removal if the same are in fact removed by Landlord. After approval of the Tenant Improvement Plans by Landlord and Tenant as herein provided, Tenant shall prepare a reasonably detailed estimate of the total costs of constructing the Tenant Improvements for Landlord's approval, which approval shall not be unreasonably withheld, conditioned or delayed. The total costs of constructing the Tenant Improvements as reflected on such estimate reasonably approved by Landlord (the "Approved Estimate") shall be referred to herein as, the "Total Estimated Construction Costs".

(c) Following Landlord's approval of the Tenant Improvement Plans, Tenant shall enter into a contract for Tenant Improvements ("Construction Contract") with a general contractor (the "General Contractor") approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed. Landlord hereby pre-approves Commodore Builders as the General Contractor. Tenant or the General Contractor shall obtain all approvals and permits required by applicable Legal Requirements to perform the Tenant Improvements. Tenant shall cause the Tenant Improvements to be completed in a good and workmanlike manner, in conformance with the Tenant Improvement Plans and in compliance with all laws and the provisions of this Lease (including, without limitation, the terms and conditions of Article XII). Tenant shall cause General Contractor, and shall cause the General Contractor to require all of its subcontractors, to carry insurance in accordance with Section 14.4 hereof and to deliver to Landlord certificates of all such insurance prior to commencement of the Tenant Improvements.

(d) Tenant shall pay for the entire cost of designing and performing the Tenant Improvements, except as provided elsewhere in this Lease. Landlord shall pay to Tenant Landlord's Contribution, which Landlord's Contribution shall be applied toward the hard and soft construction costs incurred by Tenant with respect to the Tenant Improvements (the "Construction Costs").

Except as set forth herein, Landlord shall pay to Tenant Landlord's Contribution, which Landlord's Contribution shall be applied toward the Construction Costs and be disbursed as and to the extent provided below in this Section 7.1(d) below, provided that as of the date on which Landlord is required to make payment thereof pursuant to this Section 7.1(d): (i) this Lease is in full force and effect, and (ii) no Event of Default (*i.e.*, after applicable notice and cure periods, as defined below) then exists. Tenant shall pay all costs of the Tenant Improvements in excess of Landlord's Contribution.

The Landlord's Contribution shall be disbursed to Tenant toward the payment of the Construction Costs, if, as, and when such Construction Costs are actually incurred and required to be paid by Tenant, pursuant to the following procedure:

(i) The Landlord's Contribution shall be disbursed by Landlord either to Tenant or directly to Tenant's Contractor or subcontractors as may be designated by Tenant, based upon requests for payment by Tenant with the required appropriate invoices and forms, submitted by Tenant not more often than once per month; provided, however, that in no event shall Landlord's aggregate disbursement to Tenant for the total Construction Costs exceed the lesser of (i) the actual total Construction Costs and (ii) the amount of the Landlord's Contribution (the lesser of (i) and (ii) shall be referred to herein as "Landlord's Maximum Construction Cost Obligation"). Each request for payment by Tenant shall be accompanied by a written certification satisfactory to Landlord that all work up to the date of the request for payment has been completed in accordance with the Tenant Improvement Plans (as certified by Tenant's architect), along with releases of liens from the contractor and (to the extent applicable) subcontractors for all work done and materials furnished up to the date of Tenant's request for payment (and Tenant's final request for payment shall also be accompanied by the

applicable items required below under clause (ii) below), along with any other supporting documentation reasonably required by Landlord in connection therewith. Upon receipt of each applicable complete payment request by Tenant, Landlord shall pay to Tenant (or if requested by Tenant, directly to Tenant's contractors), within thirty (30) days after submission of such complete payment request to Landlord, an amount equal to Landlord's Share (as hereinafter defined) of the total amount of such request for payment, provided that up to five percent (5%) of each payment shall be retained by Landlord pending final completion of the Tenant Improvements, such retainage to include the amount of any retainage held from Tenant's contractors, so as to provide for a single retainage amount for Landlord and the contractors. As used herein, "Landlord's Share" shall mean (y) for all hard Construction Costs shown on the Approved Estimate, one hundred percent (100%), and (z) for all soft Construction Costs and any other costs incurred by Tenant for the Tenant Improvements, the percentage that the amount of the Landlord's Contribution bears to the Total Estimated Construction Costs (provided that in no event shall such percentage exceed one hundred percent (100%)). Upon final completion of the Tenant Improvements and receipt by Landlord of the items required under clause (ii) below, Landlord shall pay to Tenant within thirty (30) days of Tenant's written request the remaining unadvanced portion of Landlord's Maximum Construction Cost Obligation, which unadvanced portion shall include the previously held back retainage.

(ii) The final disbursement of Landlord's Maximum Construction Cost Obligation by Landlord shall be subject to Tenant's delivery of the following items: (i) the final or temporary certificate of occupancy for the Premises, (ii) copies of all applicable building permits and inspection approvals reflecting final sign-off by the local governmental authority with respect to the Tenant Improvements and copies of all other permits and approvals required for Tenant's operations in the Premises for the Permitted Use, (iii) a copy of the as-built plans for the Tenant Improvements, (iv) unconditional lien waivers from all contractors, subcontractors and suppliers for the Tenant Improvements, and (v) receipt and approval by Landlord of a certificate by Tenant's architect certifying that the Tenant Improvements have been substantially completed in accordance with the Tenant Improvement Plans.

If Landlord fails to pay any properly requisitioned portion of the Landlord's Contribution or the Test Fit Plan Allowance (as defined below) within thirty (30) days after receipt of a complete payment request in accordance with this Section 7.1(d), Tenant may deliver written notice of such failure to Landlord, and if such failure continues for an additional fifteen (15) days after Landlord's receipt of Tenant's written notice of such failure, then in addition to any other remedies available to Tenant, Tenant shall be entitled to offset the same and to deduct the unpaid and overdue portion of the Landlord's Contribution, together with interest from the date the same was due at the Default Rate, from the next installment(s) of Annual Fixed Rent and Additional Rent otherwise becoming due hereunder until the same shall have been fully repaid..

In addition to Landlord's Contribution, Landlord shall also contribute an allowance in the amount of $0.15 per rentable square foot in the Premises toward the actual cost of the Test-Fit Plan (the "Test Fit Plan Allowance", and collectively with the Landlord's Contribution, the "Allowances"), which Test Fit Plan Allowance shall be paid within thirty (30) days after Landlord's receipt of an invoice for the Test-Fit Plan.

The Allowances must be (i) used for work performed within twenty four (24) months following the Rent Commencement Date and (ii) properly requisitioned in accordance with the foregoing provisions of this Section 7.1(d) within twenty-seven (27) months following the Rent Commencement Date (as such periods may be extended for any Net Landlord Delay Days or any days of delay in completing the Tenant Improvements due to force majeure events) or shall be forfeited with no further obligation by Landlord with respect thereto.

Landlord shall have no obligation to disburse any portion of the Allowances at any time when there exists an Event of Default under the Lease (or for so long as an event or condition has occurred which with notice and the passage of time would constitute such an Event of Default), until such time as the Event of Default (or the event or condition) has been cured by Tenant.

(e) Landlord shall replace, at Landlord's sole cost and expense and not as part of Operating Costs, the roof of the Building with a new Thermoplastic Polyolefin (TPO) roof having a 20-year warranty (the "Roof Work"). Landlord agrees to reasonably cooperate with Tenant on the design and scheduling of the Roof Work in order to coordinate the same with Tenant's proposed installation of Tenant's Roof Equipment (as defined in Section 20.30), provided that Landlord shall not be required to delay performance of the Roof Work beyond the Anticipated Delivery Date.

(f) Tenant's obligation to remove the initial Tenant Improvements or any equipment installed with Landlord's approval on the roof and any restoration of the Premises upon the expiration or earlier the termination of this Lease shall be governed by the provisions of Section 12.5 herein.

ARTICLE VIII

Assignment and Subletting

Section 8.1– Prohibition.

(a) Except at otherwise provided herein, Tenant shall not, directly or indirectly, assign, mortgage, pledge or otherwise transfer, voluntarily or involuntarily, this Lease or any interest herein or sublet (which term without limitation, shall include granting of concessions, licenses, and the like) or allow any other person or entity to occupy the whole or any part of the Premises, without, in each instance, having obtained Landlord's consent, which shall not be unreasonably withheld, conditioned or delayed. and having complied with all of the terms and conditions of this Article VIII. Any assignment, mortgage, pledge, transfer of this Lease or

subletting of the whole or any part of the Premises by Tenant without compliance with this Article VIII shall be invalid, void and of no force or effect. Except for so long as Tenant's stock is publicly traded on a nationally recognized stock exchange and except as expressly permitted pursuant to Section 8.7 hereof, this prohibition includes any direct or indirect change in "control" of Tenant as a result of any assignment, subletting, or other transfer which would occur by operation of law, merger, consolidation, reorganization, acquisition, transfer, or other change of Tenant's corporate, ownership, and/or proprietary structure, including, without limitation, a change in the partners of any partnership, a change in the members and/or managers of any limited liability company, and/or the sale, pledge, or other transfer of any of the issued or outstanding capital stock of any corporate Tenant. For purposes hereof, "control" shall be deemed to be ability to control the majority voting interest of the controlled corporation or other business entity.

(b) In the case of any assignment or subletting, Tenant originally named herein shall remain fully liable for all obligations of Tenant hereunder, including, without limitation, the obligation to pay the Rent and other amounts provided under this Lease and such liability shall not be affected in any way by any future amendment, modification, or extension of this Lease or any further assignment, other transfer, or subleasing and Tenant hereby irrevocably consents to any and all such transactions. It shall be a condition of the validity of any permitted assignment or subletting that the assignee or sublessee agree directly with Landlord, in form reasonably satisfactory to Landlord, to be bound by all obligations of Tenant hereunder, including, without limitation, the obligation to pay all Rent and other amounts provided for under this Lease and the covenant against further assignment or other transfer or subletting subject to, and in accordance with, the terms and conditions of this Article VIII.

Section 8.2– Further Assignment and Subletting

Landlord's consent to any assignment or subletting shall not relieve Tenant from the obligation to obtain Landlord's express consent to any further assignment or subletting subject to, and in accordance with, the terms and conditions of this Article VIII. In no event shall any permitted subtenant or assignee assign or encumber its sublease or further sublet any portion of the Premises, or otherwise suffer or permit any portion of the Premises to be used or occupied by others except subject to, and in accordance with, the terms and conditions of this Article VIII.

Section 8.3– Notice of Assignment or Sublease; Termination Rights.

If Tenant desires to assign this Lease or sublet all or any portion of the Premises, then Tenant shall give notice thereof (the "Assignment/Sublease Notice") to Landlord, which Assignment/Sublease Notice shall be accompanied by (i) the date Tenant desires the assignment or sublease to be effective, (ii) the material business terms on which Tenant would assign or sublet such premises, (iii) if a proposed assignee or subtenant shall have been identified at the time, a true and complete statement reasonably detailing the identity of the proposed assignee or subtenant, the nature of its business, and its proposed use of the Premises, and current financial information with respect to the proposed assignee, including, without limitation, its most recent financial statements, and (iv) such other information Landlord may reasonably request. Solely with respect to: (a) any proposed subleases of more than fifty percent (50%) of the Premises which is for all or substantially all of the remaining Term of the Lease, and (b) any proposed

assignment of Tenant's interest the Lease, such notice shall be deemed an offer from Tenant to Landlord whereby Landlord (or Landlord's designee) shall be granted the right ("Landlord's Recapture Right"), at Landlord's option: (x) with respect to a proposed assignment, to terminate this Lease, upon the terms and conditions hereinafter set forth; and (y) with respect to a sublease, to terminate this Lease with respect to the portion of the Premises proposed to be sublet, upon the terms and conditions hereinafter set forth. If Landlord exercises its Landlord's Recapture Right (in whole or in part) pursuant to the foregoing provisions, then: (a) this Lease (or that part of the Lease relating to the part of Premises proposed to be sublet, as applicable) shall end and expire on the date that such assignment or sublease was to commence (as if such date were the Expiration Date), (b) Rent shall be apportioned, paid or refunded as of such date, (c) Tenant, upon Landlord's request, shall enter into an agreement confirming such termination, and (d) Landlord shall be free to lease the recaptured Premises or applicable part thereof, to any person or persons, (including, without limitation, to Tenant's prospective assignee or subtenant, unless within ten (10) business days of Landlord's election to recapture Tenant shall withdraw the applicable Assignment/Sublease Notice.

Section 8.4– Consent to Assignment or Sublease.

Landlord shall either exercise Landlord's Recapture Right as aforesaid, if applicable, or grant or deny its consent to the proposed assignment or sublease by notice from Landlord to Tenant within fifteen (15) days after Landlord's receipt of Tenant's notice and the items listed in Section 8.3. If Landlord does not exercise Landlord's Recapture Right as aforesaid, if applicable, and provided that no Event of Default of Tenant has occurred hereunder, then Landlord's consent to the proposed assignment or subletting shall not be unreasonably withheld, conditioned or delayed. Tenant shall, upon demand, reimburse Landlord for all reasonable third party out-of-pocket expenses incurred by Landlord in connection with such assignment or sublease, including, without limitation, all reasonable out of pocket legal fees and expenses incurred by Landlord in connection with the granting of any requested consent, not to exceed $2,500 per consent (the "Landlord Consent Costs").

In no event shall Landlord be considered to have withheld its consent unreasonably to any proposed assignment or subletting if (it being understood that this is not an all-inclusive list):

(i) the proposed assignee or subtenant is not a reputable person or entity, or has insufficient financial wherewithal to be able to perform its obligations under the applicable sublease or assignment, and/or Landlord has not been furnished with reasonable proof thereof;

(ii) the proposed assignee or sublessee will use the Premises for a use which does not comply with the conditions and restrictions set forth in this Lease;

(iii) the proposed assignee or subtenant is then an occupant of the Project or is a person or entity (or affiliate of a person or entity) with whom Landlord or Landlord's agent is then, or has been within the prior five (5) months, negotiating in connection with the rental of space in the Project; provided, that Landlord then has comparably sized space available in the Project;

(iv) the form of the proposed sublease or instrument of assignment is not reasonably satisfactory to Landlord;

(v) the proposed subtenant or assignee shall be entitled, directly or indirectly, to diplomatic or sovereign immunity, regardless of whether the proposed assignee or subtenant agrees to waive such diplomatic or sovereign immunity, and/or shall not be subject to the service of process in, and the jurisdiction of the courts of, the Commonwealth of Massachusetts; or

Section 8.5– Subordination.

Each sublease shall be subject and subordinate to this Lease and to the matters that this Lease is or shall be subordinate, it being the intention of Landlord and Tenant that Tenant shall assume and be liable to Landlord for any and all acts and omissions of all subtenants and anyone claiming under or through any subtenants which, if performed or omitted by Tenant, would be a default under this Lease.

Section 8.6– Profits.

If Tenant shall enter into any assignment or sublease permitted hereunder or consented to by Landlord, Tenant shall, within one hundred twenty (120) days after Landlord's consent to such assignment or sublease (or thirty (30) days after Tenant's incurring of same if later), deliver to Landlord a complete list of Tenant's Transaction Costs (as hereinafter defined) paid or to be paid in connection with such transaction, together with a list of all of Tenant's personal property to be transferred to such assignee or sublessee. Tenant shall deliver to Landlord evidence of the payment of such fees promptly after the same are paid. In consideration of such assignment or subletting, Tenant shall pay to Landlord:

(a) in the case of an assignment of this Lease, on the effective date of the assignment, an amount equal to fifty percent (50%) of all sums and other consideration paid to Tenant by the assignee for or by reason of such assignment (including sums paid for the sale or rental of Tenant's personal property, less, in the case of a sale thereof, the then fair market value of such personal property, as reasonably determined by Landlord) after first deducting-customary transaction costs actually incurred by Tenant (collectively "Transaction Costs"), including, without limitation, Tenant's reasonable out-of-pocket third-party brokerage fees, legal fees and expenses, advertising costs, marketing downtime, free rent amounts, architectural fees, subtenant improvement costs, and Landlord Consent Costs in connection with such assignment; or

(b) in the case of a sublease, fifty percent (50%) of any consideration payable under the sublease to Tenant by the subtenant that exceeds on a per square foot basis the Annual Fixed Rent accruing during the term of the sublease in respect of the subleased space (together with any sums paid for the sale or rental of Tenant's personal property, less, in the case of the sale of such personal property, the then fair market value thereof, as reasonably determined by Landlord) after first deducting Tenant's Transaction Costs in connection with such sublease. The sums payable under this clause shall be paid by Tenant to Landlord after recovery by Tenant of the foregoing costs, within thirty (30) days after rent is paid by the subtenant to Tenant.

Section 8.7– Permitted Transfers.

(a) The prohibition contained in Section 8.1 hereof shall not apply to the transfer of shares of stock of Tenant if and so long as either: (x) the voting stock of the then Tenant is publicly traded on a nationally recognized stock exchange, or (y) the Tenant or the remaining obligors under the Lease after such transfer meets the Net Worth Test, as described below. For purposes of this Section 8.7, the term "Net Worth Test" means that the successor to Tenant has a tangible net worth computed in accordance with generally accepted accounting principles at least equal to the tangible net worth of Tenant as of the Effective Date, and the term "transfers" shall be deemed to include the issuance of new stock which results in a majority of the stock, or the stock comprising voting control, of Tenant being held, directly or indirectly, by a person or entity that does not hold such stock of Tenant on the date hereof.

(b) The provisions of Sections 8.1 and 8.6 shall not apply to the following:

(i) transactions with a business entity into or with which Tenant or any material business unit or division is merged, consolidated or reorganized or to which substantially all of Tenant's stock or assets are transferred or to which all or substantially all of Tenant's business operations of such business division are transferred (each, a "Permitted Transferee") so long as (x) such transfer was made for a legitimate independent business purpose and not for the purpose of transferring this Lease, (y) the successor to Tenant meets the Net Worth Test, and (z) proof of such net worth is delivered to Landlord at least ten (10) days prior to the effective date of any such transaction (unless prior notification is prohibited by legal or confidentiality restrictions, in which case Tenant shall provide such proof as soon as legally permissible); and

(ii) any sublet of all or part of the Premises or an assignment of this Lease for the Permitted Use to any corporation or other business entity which controls, is controlled by, or is under common control with the original Tenant named herein (a "Related Corporation"), for so long as such entity remains a Related Corporation. Such sublease shall not be deemed to vest in any such Related Corporation any right or interest in this Lease or Premises nor shall it relieve, release, impair or discharge any of Tenant's obligations hereunder. For the purposes hereof, "control" shall be deemed to mean ownership of not less than fifty percent (50%) of all of the voting stock of such corporation or not less than fifty percent (50%) of all of the legal and equitable interest in any other business entity if Tenant is not a corporation.

(c) Notwithstanding anything to the contrary contained in this Lease, Tenant shall have the right, without the consent of Landlord, to designate portions of the Premises, not to exceed twenty-five percent (25%) of the Premises in the aggregate and which portion(s) shall not be separately demised, for temporary use by parties who have an ongoing business relationship with Tenant or provide services in support of Tenant's operations for the Permitted Use, including without limitation, Tenant's clients, customers, affiliates and consultants (each, a "Shared User") without being subject to Sections 8.1 and 8.6; provided, that (i) in no event shall the use of any portion of the Premises by any such Shared User create or be deemed to create any right, title or interest of such Shared User in any portion of the Premises or this Lease, (ii) such use or occupancy shall terminate automatically upon the termination of this Lease, (iii) no demising walls shall be erected (or shall otherwise be required by applicable Legal

Requirements) in the Premises separating the space used by Shared Users from the remainder of the Premises, nor shall any separate entrances be constructed for any Shared Users, (iv) no Shared User shall have any right to exterior Building signage or any separate identification in the lobby or any entrance to the Premises, (v) Tenant's commercial general liability insurance pursuant to Section 14.3 shall cover each Shared User and Tenant shall indemnify and hold Landlord harmless from and against any and all claims, actions, suits, liabilities, losses, damages, costs, charges, attorneys' fees, and other expenses of every nature and character which Landlord shall or may sustain or incur by reason of any claim or demand that may be made as a result of, or in any way related to, any Shared User's use or occupancy of the Premises. Upon the written request of Landlord from time to time, Tenant shall notify Landlord in writing of all Shared Users (if any) occupying the Premises.

Section 8.8– No Waiver.

The acceptance by Landlord of the payment of Annual Fixed Rent, Additional Rent or other charges from an assignee or sublease shall not be considered to be a consent by Landlord to any such assignment, sublease, or other transfer, nor shall the same constitute a waiver of any right or remedy of Landlord. The listing of any name other than that of Tenant on the doors of Premises, the Building directory or elsewhere shall not vest any right or interest in this Lease or in Premises, nor be deemed to constitute Landlord's consent to any assignment or transfer of this Lease or to any sublease of Premises or to the use or occupancy thereof by others. Any such listing shall constitute a privilege revocable in Landlord's discretion by notice to Tenant.

Section 8.9– Tenant's Failure to Complete.

If Landlord does not exercise Landlord's Recapture Right and Tenant fails, within nine (9) months after the delivery of Tenant's notice, to execute and deliver to Landlord such assignment or sublease then Tenant shall again comply with all of the provisions of this Article VIII before assigning this Lease or subletting all or part of the Premises; provided that the foregoing 9-month period shall be extended to 18 months in the case of an Assignment/Sublease Notice which shall have been given to Landlord prior to Tenant having identified a prospective subtenant or assignee. In addition, if Landlord consents to a proposed assignment or sublease and Tenant fails to execute and deliver to Landlord such assignment or sublease within nine (9) months after the giving of such consent, then Tenant shall again comply with all of the provisions and conditions of this Article VIII before assigning this Lease or subletting all or part of the Premises.

ARTICLE IX

Tenant's Contribution

Section 9.1– Tenant's Proportionate Share of Operating Costs.

(a) All costs and expenses (the "Operating Costs") of every kind and nature paid or incurred by Landlord in cleaning, operating, managing, equipping, decorating, lighting, repairing, and maintaining the Property and/or the Project including, without limitation, utilities, equipment and facilities relating thereto and/or required to be provided, maintained or improved

(or whose provision, maintenance or improvement is required to be contributed to) by Landlord (including, without limitation, off-site utilities and facilities and improvements such as retention areas, drainage facilities, and all taxes, assessments, costs and other expenses related thereto), and all other common areas of the Property and/or the Project (including, but without limitation, all landscaping and gardening, the parking areas, costs of snow plowing or removal, and Tenant shall share therein in the manner hereinafter provided. Operating Costs shall also include (but shall not be limited to) water and sewer and other utility system charges and assessments; costs of all roof, sky lights, and other maintenance and repairs performed by Landlord; costs of the installation, operation, maintenance, testing and repair of any utility and energy management system including, without limitation, any central HVAC system, central sprinkler system and smoke detection systems; costs of providing, operating and maintaining cellular services, wi-fi or data networks and the like for the Property; costs of Project amenities (including, without limitation, any café, fitness center, collaboration space, the Shuttle Service or other amenities provided by Landlord or its affiliates for the Project from time to time), costs of applying and reporting for the Property or any part thereof to seek or maintain certification under the U.S. EPA's Energy Star® rating system, the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system or a similar system or standard; costs of the operation, maintenance and repair of any escalators and elevators; compensation, wages, fringe benefits and payroll taxes paid to, for or with respect to all persons up through the grade of Property manager for their actual services in the operating, maintaining, managing, or cleaning of the Property; costs of liability, property damage, fire, workers' compensation, and other insurance (including, without limitation, all insurance, hazard, rent and otherwise, from time to time carried by Landlord on any or all structures); wages and expenses relating thereto, unemployment taxes, social security taxes, and personal property taxes and assessments; fees for required licenses and permits; supplies, costs of uniforms and the cleaning thereof; payments by Landlord relating to traffic safety, fire safety, and other governmental services and programs; property management fees (not to exceed three percent (3%) of annual gross revenues; provided that, in calculating such management fees only, annual gross revenues shall not include such management fees); the fair market rental value of Landlord's management office (provided, if the management office services one or more other buildings, the shared costs and expenses of such management office shall be equitably prorated and apportioned between the Building and the other buildings); costs of accounting and bookkeeping services and payments under service contracts with independent contractors for operating, repairing, maintaining or cleaning; the costs of all capital repairs and replacements made by Landlord during the Lease Term, including to all base building mechanical, electrical and plumbing systems and equipment, which costs of such capital repairs and replacements shall be amortized over the number of years of useful life of the capital item in question in accordance with generally accepted accounting principles and practices in effect at the time thereof ("GAAP") and with an interest rate of seven percent (7%); and the costs of capital improvements that are reasonably intended to reduce Operating Costs (provided that the annual amortized costs of such capital improvements included in Operating Costs shall not exceed the reasonable annual expected savings from such expenditure) or are required to comply with applicable Legal Requirements first effective after the Effective Date, which costs of such capital improvements shall be amortized over the number of years of useful life of the capital item in question in accordance with GAAP and with an interest rate of five percent (5%).

(b) The following shall be excluded from Operating Costs:

(i) leasing commissions, fees and costs, advertising and promotional expenses and other costs incurred in procuring tenants or in selling the Project;

(ii) legal fees or other expenses incurred in connection with enforcing leases with tenants in the Project or in connection with any other disputes or claims relating to the Project;

(iii) costs of renovating or otherwise improving or decorating space solely for the benefit of any tenant or other occupant of the Project, including Tenant, or relocating any tenant;

(iv) financing costs on any mortgage or other instrument encumbering the Project including interest, charges, fees and principal amortization of debts and the costs of providing the same and rental on ground leases or other underlying leases and the costs of providing the same;

(v) any liabilities, costs or expenses associated with or incurred in connection with the remediation, removal, enclosure, encapsulation, monitoring or other handling of hazardous materials or the continuation or operation of any existing remediation or maintenance of the same and the cost of defending against claims and in regard to the existence, emission or release of hazardous materials at the Project (except to the extent of those costs for which Tenant is responsible pursuant to the express terms of the lease);

(vi) costs of any items for which Landlord is paid or reimbursed by insurance or another source (other than payments from tenants and Tenant for Operating Costs);

(vii) increased insurance assessed specifically to any tenant of the Project for which Landlord is reimbursed by any other tenant or caused by the activities of another occupant of the Project;

(viii) charges for services not provided to Tenant under the lease or of a nature that are payable directly by Tenant under the lease and utilities (i.e. water and electricity), services or goods and applicable taxes for which Tenant or any other tenant, occupant, person or other party reimburses Landlord or pays to third parties;

(ix) all other items to the extent that another party compensates or pays so that Landlord shall not recover any item of cost more than once;

(x) cost of correcting defects in the initial design, construction or equipment of, or latent defects in, the Premises or the Building or the Project (but not the costs of ordinary and customary repair for normal wear and tear) or to comply with any covenant, condition, restriction, underwriter’s requirement or law applicable to the Premises or the Building or the Project on the Commencement Date;

(xi) lease payments for rental equipment (other than equipment for which depreciation is properly charged as an expense) that would constitute a capital expenditure if the equipment were purchased;

(xii) cost of the initial stock of tools and equipment for operation, repair and maintenance of the Project;

(xiii) late fees or charges incurred by Landlord due to late payment of expenses, except to the extent attributable to Tenant's actions or inactions;

(xiv) cost of acquiring, securing cleaning or maintaining sculptures, paintings and other works of art;

(xv) Taxes;

(xvi) charitable or political contributions;

(xvii) reserve funds;

(xviii) costs and expenses incurred in connection with any act, omission of or in contesting or settlement of any claimed violation by Landlord, any other occupant of the Property, or their respective agents, employees or contractors, of law or requirements of law;

(xix) costs of mitigation or impact fees or subsidies (however characterized), imposed by a governmental authority, or any other amount due as a result of Landlord's violation or failure to comply with any governmental regulation and rules or any court order, decree or judgment;

(xx) costs occasioned by casualties or condemnation;

(xxi) costs incurred to benefit or as a result of a specific tenant or items and services selectively supplied to any specific tenant;

(xxii) depreciation and amortization of the Project as a whole (as opposed to the amortization permitted above); and

(xxiii) any new capital improvements (as distinguished from capital repairs and replacements) except as to capital improvements to reduce Operating Costs or as required by law, as and to the extent expressly included above.

(c) From and after the Rent Commencement Date, Tenant shall, for the remainder of the Term of this Lease, pay to Landlord, as Additional Rent, Tenant's Proportionate Share of the Operating Costs incurred by Landlord with respect to the Property. It is understood that the Property is part of the Project and is operated along with all or some of the other portions of the Project, and that the Operating Costs for the Property include shared costs and expenses which are allocated among the Building and other portions of the Project based upon the proportionate usage or benefit derived from the shared facilities, as reasonable determined by Landlord.

(d) Tenant's Proportionate Share of the Operating Costs shall be paid in monthly installments, in the amount reasonably estimated from time to time by Landlord, on the first day of each and every calendar month, in advance.

(e) In determining the amount of Operating Costs for any calendar year, if less than 95% of the rentable areas of the Property or the Project, as applicable, are occupied by tenants at any time during any such year, Operating Costs that vary based on occupancy such as cleaning costs shall be determined for such year to be an amount equal to the like expenses which would normally be expected to be incurred had such occupancy been 95% throughout such year.

Section 9.2 – Intentionally Omitted.

Section 9.3– Tenant's Audit Right.

(a) Upon request from Tenant, Landlord shall provide Tenant with an update of Landlord's good faith estimates of Operating Costs, and of any amounts reasonably anticipated to be necessary to reconcile Tenant's estimated payments with actual Operating Costs. Landlord will deliver the annual Operating Cost statement (the "Year End Statement") to Tenant within one hundred twenty (120) days after the expiration of the respective Lease Year (with reasonable detail and backup). Landlord's failure to render any Year End Statement on a timely basis with respect to any calendar year shall not prejudice Landlord's right to thereafter render a Year End Statement with respect to such calendar year or any subsequent calendar year, nor shall the rendering of a Year End Statement prejudice Landlord's right to thereafter render a corrected Year End Statement for that calendar year.

(b) Subject to the provisions of this Section 9.3, Tenant shall have the right, at Tenant's sole cost and expense, to examine the correctness of the Year End Statement, provided by Landlord under the applicable provisions of this Lease, or any item contained therein:

(i) Any request for examination in respect of any calendar year may be made by notice from Tenant to Landlord no more than six (6) months after the date (the "Operating Cost Statement Date") that Landlord provides a Year End Statement to Tenant in respect of such calendar year. Any examination under the preceding sentence must be completed and the results communicated to Landlord no more than one hundred eighty (180) days after Tenant has made such request, as provided herein.

(ii) Tenant hereby acknowledges and agrees that Tenant's sole right to contest any Year End Statement shall be as expressly set forth in this Section 9.3. Tenant hereby waives any and all other rights provided pursuant to applicable laws to inspect Landlord's books and records and/or to contest the Year End Statement. If Tenant shall fail to timely exercise Tenant's right to inspect Landlord's books and records as provided in this Section, or if Tenant shall fail to timely communicate to Landlord the results of Tenant's examination as provided in this Section, with respect to any calendar year, then the Year End Statement delivered by Landlord to Tenant shall be conclusive and binding on Tenant.

(iii) All of Landlord's books and records pertaining to Tenant's Proportionate Share of the Operating Costs for the specific matters questioned by Tenant for the calendar year included in Landlord's Year End Statement shall be made available to Tenant within thirty (30) days after Landlord timely receives the notice from Tenant to make such examination pursuant to this Section, either electronically or during normal business hours, at the offices where Landlord keeps such books and records.

(iv) Tenant shall not have the right to make such examination unless (I) no Event of Default then exists and (II) Tenant has paid the amount shown on the Year End Statement. Tenant shall have no right to make such examination more than once in respect of any calendar year in which Landlord has given Tenant a Year End Statement.

(v) Such examination may be made only by the following (each, an "Authorized Auditor"): (x) a qualified employee of Tenant, (y) an independent nationally or regionally recognized certified public accounting firm or brokerage firm licensed to do business in the State, or (z) another audit firm licensed to do business in the State, subject to Landlord's approval, which approval shall not be unreasonably withheld, conditioned or delayed. No examination shall be conducted by an Authorized Auditor who is to be compensated, in whole or in part, on a contingent fee basis. All costs and expenses of any such examination shall be paid by Tenant except as otherwise provided below.

(vi) As a condition to performing any such examination, Tenant and its examiners shall be required to execute and deliver to Landlord an agreement, in form reasonably acceptable to Landlord, agreeing to keep confidential any information which it discovers about Landlord or the Building in connection with such examination.

(vii) No subtenant shall have any right to conduct any such examination.

(viii) If as a result of such examination Landlord and Tenant agree (or it is finally determined) that the amounts paid by Tenant to Landlord on account of Tenant's Proportionate Share of Operating Costs exceeded the amounts to which Landlord was entitled hereunder, or that Tenant is entitled to a credit with respect to Tenant's Proportionate Share of Operating Costs, Landlord shall at Tenant's election either refund to Tenant the amount of such excess or apply the amount of such credit, as the case may be, within thirty (30) days after the date of such agreement (unless the term has ended, in which case Landlord shall promptly refund to Tenant the amount of such excess). Similarly, if Landlord and Tenant agree (or it is finally determined) that the amounts paid by Tenant to Landlord on account of Tenant's Proportionate Share of Operating Costs were less than the amounts to which Landlord was entitled hereunder, then Tenant shall pay to Landlord, as Additional Rent, the amount of such deficiency within thirty (30) days after the date of such agreement. Should such an examination indicate that, the applicable Year End Statement has been overstated by Landlord by an amount in excess of four percent (4%) of the actual costs, then Landlord shall pay to Tenant the reasonable cost of such audit in an amount not to exceed $10,000.00.

ARTICLE X

Landlord Services

Section 10.1–Utilities.

Landlord represents that, on or prior to the Commencement Date, the Premises will be separately metered or submetered for electricity, heating, ventilation and air conditioning, and water and natural gas and that the meters or submeters serving the Premises will not serve any other buildings or facilities at the Property. Tenant, at its expense, shall pay all costs of the charges for

all utilities and services used in or at the Premises, including, without limitation, water, sewer, gas, telephone, internet, heating, ventilation and air conditioning, cable and electric utility services, and all related systems and meters (collectively, "Utilities"). Tenant agrees to indemnify and hold the Landlord and the Landlord Parties (as hereinafter defined) harmless from and against any and all third-party claims against Landlord arising from all costs and charges for Utilities consumed on or by the Premises. Tenant shall pay all charges and other amounts for separately metered Utilities directly to the applicable utility providers. Tenant's failure to timely pay Utilities shall (subject to applicable notice and grace periods) be a default by Tenant hereunder. All utilities and services (including Utilities) supplied to the Premises and not paid by Tenant directly to the utility provider shall be deemed Operating Costs. If Tenant's requirements for Utilities are, in Landlord's judgment, in excess of normal requirements for the Premises, Landlord reserves the right to require the Tenant to procure such excess requirements at the Tenant's expense by arrangement with an appropriate local utility provider, which arrangements, other than the cost and expense therefor, shall be subject to the approval of Landlord.

Section 10.2– Other Services to be Furnished by Landlord to Tenant.

(a) Landlord shall provide, the cost of which shall be included in Operating Costs to the extent permitted under Article IX of this Lease, except as otherwise provided and subject to Legal Requirements, the following services: (a) heating, ventilation and air conditioning service to the common areas of the Building, (b) electrical service of 30 watts per usable square foot furnished by the electric utility company serving the Building, (c) water and sewer service to the Premises, and (d) janitorial service in and about the common areas of the Building, including the common hallway (it being acknowledged and agreed, however, that Landlord shall not be responsible for providing any janitorial service for the Premises or the Exclusive Loading Area, which shall be the responsibility of Tenant to clean as provided in Section 11.8 below). The janitorial specifications for the Building will be comparable to that of other similar quality laboratory, research and development buildings and/or projects in the Market Areas. As used herein, the term "holidays" means New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving, Christmas and other days recognized by the United States of America as official holidays but "holidays" shall not include, for purposes of determining the janitorial service obligations, Patriot's Day, Veterans Day, Columbus Day, President's Day or Martin Luther King Day. Normal business hours for the Building are weekdays from 8:00 a.m. to 6:00 p.m. and on Saturdays from 9:00 a.m. to 1:00 p.m.

(b) Landlord and Tenant shall work together in good faith to develop a shuttle service between the Project and the Harvard Square MBTA station (the "Shuttle Service"). If and for so long as Landlord provides the Shuttle Service for the shared use of Project occupants, Tenant shall have the non-exclusive right to use such Shuttle Service, subject to availability and to any reasonable rules and regulations promulgated by Landlord from time to time with respect thereto and generally applicable to the users thereof. Landlord shall provide the Shuttle Service for the Project pursuant to a schedule reasonably designated by Landlord and based on input from Tenant and other Project occupants. Tenant acknowledges and agrees that the costs and expenses of operating and maintaining the Shuttle Service shall be included in Operating Costs. Tenant further acknowledges and agrees that Landlord shall have no obligation to provide or maintain the Shuttle Service, except that the same shall be fully operational on or before the

Commencement Date, and shall be operated and maintained for not less than sixty (60) full months thereafter, subject to force majeure. Landlord shall not have the right to discontinue or to reduce the frequency of the Shuttle Service thereafter unless Landlord determines, in its reasonable business judgment, that the Shuttle Service is not being sufficiently used and it would be economically prudent to discontinue the Shuttle Service, in which event Landlord shall give Tenant at least ninety (90) days' advance notice of any permanent discontinuance of the Shuttle Service. In the event that Landlord discontinues the Shuttle Service, Tenant shall have the right to provide, at Tenant's sole cost, its own shuttle service (which may be exclusive to Tenant or shared with other Project occupants), subject to the prior written approval of Landlord and any rules and regulations of Landlord therefor, including with respect to traffic circulation management, the designation of parking and loading areas and any other matters related to the operation of parking areas, and provided that Tenant shall indemnify and hold Landlord harmless from and against any and all claims, actions, suits, liabilities, losses, damages, costs, charges, attorneys' fees, and other expenses of every nature and character which Landlord shall or may sustain or incur by reason of any claim or demand that may be made as a result of, or in any way related to, any operation of a shuttle service by Tenant. Landlord shall not be liable for any loss, injury or damage to persons operating or using such shuttle service, it being agreed that, to the fullest extent permitted by law, the operation of any shuttle service by Tenant shall be at the sole risk of Tenant.

(c) Anything in this Lease to the contrary notwithstanding, it is expressly understood and agreed that the designation or use from time to time of portions of the Project as common areas shall not restrict Landlord's use of such areas for buildings, structures and/or for other purposes as Landlord shall determine, including, without limitation, the expansion or remodeling of the Project to include one or more additional buildings, Landlord hereby reserving for itself the right to build, add to, subtract from, lease, license, relocate and/or otherwise use (temporarily and/or permanently) any buildings, kiosks, other structures, parking areas, roadways or other areas or facilities anywhere upon the Project for any purposes as Landlord shall reasonably determine; subject, however, to Section 20.23 below and provided further that, subject to the below, in no event shall the number of parking spaces available for Tenant's use at the Project be reduced below a ratio of 3 spaces per 1,000 rentable square feet in the Premises, nor shall any of Tenant's parking spaces within the Tenant's Exclusive Parking area be reduced in size or re-located so as to make them any less accessible to Tenant. Landlord may at any time close temporarily the common areas of the Project or any portion thereof to make repairs or changes to prevent the acquisition of public rights therein, and may do such other acts in and to the common areas as in its judgment may be desirable to improve the convenience thereof; provided, however, Landlord shall use its commercially reasonable efforts to minimize interference with Tenant's operations in the Premises in connection therewith.

(d) Landlord reserves the right temporarily to stop any service or utility system, when necessary by reason of accident or emergency, or until necessary repairs have been completed; provided, however, that in each instance of stoppage, Landlord shall exercise reasonable diligence to eliminate the cause thereof. Except in case of emergency repairs, Landlord will give Tenant reasonable advance notice of any contemplated stoppage and will use reasonable efforts to avoid unnecessary inconvenience to Tenant by reason thereof.

(e) Failure by Landlord to any extent to furnish or cause to be furnished the utilities or services described this Lease, or any cessation or interruption thereof, resulting from causes beyond Landlord's reasonable control shall not render Landlord liable in any respect for damages, provided, however, that Landlord shall use all reasonable efforts to restore such utilities or service by work commenced and prosecuted diligently and continuously to completion. If any such interruption which is within Landlord's control to correct or which is due to Landlord's negligence or willful misconduct renders all or a portion of the Premises unusable for the Permitted Use for in excess of five (5) consecutive days after Landlord's receipt of written notice thereof from Tenant, and Tenant ceases to use the affected portion of the Premises by reason of such untenantability, Tenant shall be entitled to an equitable abatement of Annual Fixed Rent and Additional Rent from the date such interruption commenced until the date the Premises (or applicable portion thereof) are again usable for the Permitted Use. The foregoing provisions shall not apply in the event of untenantability caused by (y) any fire or casualty as set forth in Article XVI, eminent domain as set forth in Article XVII or any other force majeure, or (z) any act or omission of Tenant or any Tenant Parties.

ARTICLE XI

Other Tenant Covenants

Section 11.1– Use.

(a) It is understood, and Tenant so agrees, that the Premises during the Term of this Lease shall be used and occupied by Tenant only for the purposes specified as the use thereof in Section 1.1(j) of this Lease, and for no other purpose or purposes. Further, Tenant's operation for business in the Premises shall comply with all laws, rules and regulations applicable thereto. Tenant shall have access to the Premises 24 hours per day, 7 days per week, subject to the terms of this Lease, such protective services or monitoring systems, if any, as Landlord may from time to time impose, including, without limitation, sign-in procedures and/or presentation of identification cards, repair situations and events beyond Landlord's reasonable control. During the Term, Tenant and Tenant's employees and invitees shall have (i) exclusive access to the south entrance of the Building, (ii) the exclusive right to use the Exclusive Use Areas as provided in Section 2.1(c), and (iii) the non-exclusive right to use the common areas of the Property, subject to reasonable rules and regulations enacted by Landlord from time to time of which Tenant has received notice. Subject to Landlord's prior approval, which approval shall not be unreasonably withheld, conditioned or delayed, and subject to Tenant obtaining, at Tenant's expense, all necessary governmental permits and approvals required therefor, Tenant shall have the right to install signage identifying Tenant's Exclusive Parking area. Tenant shall be responsible, at Tenant's expense, for maintaining all such signage and for removing the same (and repairing any damage resulting from such removal) at the expiration or earlier termination of this Lease.

(b) Notwithstanding any other provision of this Lease, Tenant shall not use the Premises or the Building, or any part thereof, or suffer or permit the use or occupancy of the Premises or the Building or any part thereof (i) in a manner which would violate any of the covenants, agreements, terms, provisions and conditions of this Lease or otherwise applicable to or binding upon the Premises; (ii) for any unlawful purposes or in any unlawful manner; (iii) which, in the reasonable judgment of Landlord (taking into account the use of the Building as a

multi-tenant, combination research and development and office building) shall (a) impair, interfere with or otherwise diminish the quality of any of the Building services or the proper and economic heating, cleaning, ventilating, air conditioning or other servicing of the Building or Premises, or the use or occupancy of any of the common areas; (b) occasion impairment, interference or injury in any material respect (and Tenant shall not install or use any electrical or other equipment of any kind, which, in the reasonable judgment of Landlord, will cause any such impairment, interference, or injury), or cause any injury or damage to any occupants of the Premises or other tenants or occupants of the Building or their property; or (c) cause harmful air emissions, laboratory odors, vibration or noises or any unusual or other objectionable odors, vibrations, noises (including, without limitation, the use of grinders), water, particulates or other undesirable effects or emissions to emanate from the Premises or otherwise unreasonably disturb other tenants or interferes with the safety, comfort or convenience of Landlord or of any of the other Project occupants; or (iv) in a manner which is inconsistent with the operation and/or maintenance of the Building as a first-class combination office and research and development building.

(c) No animal research shall be conducted within the Premises other than research and development using zebra fish, laboratory mice and laboratory rats only, or such other animals as may be approved in writing in advance by Landlord (which approval may be withheld in the sole and absolute discretion of Landlord) (collectively, the "Permitted Animals"), within a portion of the Premises not to exceed 8,000 rentable square feet, as shown on plans to be submitted by Tenant and approved by Landlord in accordance with Section 7.1 (the "Permitted Vivarium Area"). Animal research consisting solely of Permitted Animals ("Animal Use"), shall be permitted subject to the following: (i) all testing and research shall be conducted in strict compliance with all applicable Legal Requirements and with good scientific and medical practice; (ii) all dead animals, any part thereof or any waste products related thereto, shall be disposed of, at the sole cost and expense of Tenant, in strict compliance with all applicable Legal Requirements and with good scientific and medical practice; (iii) no odors, noises or any similar nuisance above background levels shall be permitted to emanate from any vivarium; and (iv) Tenant's Animal Use shall not interfere with the peaceable and quiet use and enjoyment by other tenants or occupants of the Project. Tenant shall procure and deliver to Landlord copies of all permits and approvals necessary for the use and operation of its vivarium, and shall maintain such permits and approvals in full force and effect at all times during the Term. Tenant shall indemnify, save harmless and defend Landlord from and against all liability, claim, damage, loss or cost (including reasonable attorneys' fees) arising out of or relating to the use and operation of any vivarium within the Premises or the presence of the Permitted Animals on the Premises. The movement of any Permitted Animals into or out of the Premises shall occur solely by means of Tenant's Exclusive Loading Area. In addition, Tenant shall take reasonable actions necessary to resolve any picketing or public relations issues arising from Tenant's Animal Use, including having pickets removed.

Section 11.2– Signage.

(a) Except as expressly set forth in this Section 11.2, Tenant shall not inscribe, paint, affix, or otherwise display any sign, advertisement or notice on any part of the outside or inside of, or upon, the Project or the Building to the extent the same is visible from outside of the Premises without Landlord's consent. If any other signs, advertisements or notices are painted,

affixed, or otherwise displayed without the prior approval of Landlord or otherwise in accordance with this Section 11.2, Landlord shall have the right to remove the same, and Tenant shall be liable for any and all costs and expenses incurred by Landlord in such removal.

(b) So long as this Lease is in full force and effect, Landlord shall provide, at its sole cost and expense, (i) non-exclusive Project-standard signage consisting of the name and/or logo of Tenant on the monument sign for the Building, as more particularly shown on Exhibit E-1 attached hereto (the "Monument Signage"), and (ii) additional wayfinding directional signage as described on Exhibit E-1 attached hereto, or such other locations as mutually agreed upon by Landlord and Tenant. In addition, so long as this Lease is in full force and effect and Tenant or any Permitted Transferee or approved assignee is then leasing and occupying at least seventy-five percent (75%) of the initially demised Premises, Tenant shall have the non-exclusive right to install, at Tenant's sole cost, exterior building signs in the locations designated for Tenant's exterior signage on Exhibit E-2 attached hereto (the "Exterior Signage"), subject to applicable zoning requirements and Landlord's prior approval of the size, design, color and specifications, and subject to Tenant obtaining, at Tenant's sole cost, all governmental permits and approvals required therefor. In no event shall Landlord grant any other tenants of the Building any rights to any exterior signage in the location shown as the "Prohibited Signage Area" on Exhibit E-2 attached hereto.

(c) At the expiration or earlier termination of the Term, Tenant shall remove all of its signage, including any Exterior Signage (but excluding the Monument Signage, which Landlord shall remove), and shall repair any damage resulting from such removal, all at Tenant's sole cost.

Section 11.3– Rules and Regulations. Tenant shall, and shall cause all Tenant Parties to, comply with all reasonable rules and regulations hereafter implemented by Landlord, of which Tenant has been given at least thirty (30) days' advance notice, except in the case of emergency, for the care and use of the Building and the Project, but Landlord shall not be liable to Tenant for the failure of other occupants of the Project to conform to such rules and regulations. Landlord shall not enforce the rules and regulations in a discriminatory manner against Tenant. If and to the extent there is any conflict between the provisions of this Lease and any rules and regulations for the Building, the provisions of this Lease shall control.

Section 11.4– Floor Load. Landlord and Tenant have been advised by Landlord's structural engineer that the maximum floor load of the Premises is 250 pounds per square foot of floor area. Tenant's equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient to absorb and prevent vibration or noise that may be transmitted to the Building structure or to any other space in the Building. Tenant shall have the right at Tenant's cost and expense to reinforce the floors and to increase the floor load as reasonably required by Tenant, subject to Landlord's reasonable approval of plans for such Alteration as provided below.

Section 11.5– Attorney's Fees. Tenant shall pay, as Additional Rent, all reasonable out of pocket costs, counsel and other fees incurred by Landlord in connection with the successful enforcement by Landlord of any obligations of Tenant under this Lease or in connection with any bankruptcy case involving Tenant. In the event of

any litigation between the parties, Tenant shall not be obligated to make any payment to Landlord of any attorneys' fees incurred by Landlord unless judgment is entered (final, and beyond any appeal timely taken) in favor of Landlord in the lawsuit relating to such fees. Landlord shall pay, within thirty (30) days of demand by Tenant, all reasonable costs and attorneys' fees and other fees incurred by Tenant in connection with any litigation between Landlord and Tenant where judgment is entered (final, and beyond appeal) in favor of Tenant.

Section 11.6– Tenant's Vendors. Any vendors engaged by Tenant to perform services in or to the Premises including, without limitation, janitorial contractors and moving contractors shall be coordinated with any work being performed by or for Landlord and in such manner as to maintain harmonious labor relations and not to damage the Building or Project or interfere with Building construction or operation and shall be performed by vendors first approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed. All such vendors shall be deemed a Tenant Party and shall obtain (and during the performance of such work keep in force) insurance that meets the Landlord's insurance requirements for vendors accessing the Property

Section 11.7– Legal Requirements. Tenant shall, and shall cause all Tenant Parties to, comply with all applicable laws, ordinances, rules, regulations, statutes, by-laws, court decisions, and orders and requirements of all public authorities ("Legal Requirements") now or hereafter in force which shall impose a duty on Landlord or Tenant relating to Tenant's use and occupancy of the Premises, including without limitation, the Americans with Disabilities Act and all Hazardous Materials Laws (as defined in Section 20.24), and which obligation shall include ensuring that all contractors that Tenant utilizes to perform work in the Premises comply with all Legal Requirements. Tenant shall promptly pay all fines, penalties and damages that may arise out of or be imposed because of its failure to comply with the provisions of this Section 11.7. Tenant also shall comply with applicable legally required laboratory practices, (including the use of safety equipment)established by the Center for Disease Control and Prevention (the "CDC"), and in no event shall Tenant's use of the Premises exceed BSL-2 requirements and protocols in effect with respect to Tenant's use from time to time. In addition, Tenant shall, at its sole cost and expense, promptly comply with any Legal Requirements that relate to the Base Building (defined below), but only to the extent such obligations are triggered by Tenant's use of the Premises (other than for general office use) or any Alterations in or about the Premises performed or requested by Tenant. "Base Building" shall include the structural portions of the Building, the common restrooms, the Building mechanical, electrical, and plumbing systems and equipment located in the internal core of the Building on the floor or floors on which the Premises are located. Tenant shall promptly provide Landlord with copies of any notices it receives regarding an alleged violation of Legal Requirements. Except as otherwise provided herein, Tenant shall be solely responsible, at Tenant's sole cost and expenses, for obtaining all operational permits, licenses and approvals required in order for Tenant to use the Premises for the Permitted Use. Without limiting the generality of the foregoing, if Tenant's operations involve the use of recombinant DNA ("rDNA"),

Tenant must obtain a permit therefor from the Board of Health and must comply with the City of Waltham's rDNA ordinance.

Section 11.8– Premises Cleaning. Landlord shall have no obligation to provide any cleaning, janitorial or refuse or waste removal services in or to the Premises or the Exclusive Loading Area. Tenant shall be responsible, at its sole cost and expense, for providing cleaning and janitorial services to the Premises and the Exclusive Loading Area in a neat and clean manner consistent with the cleaning standards generally prevailing in comparable buildings in the Market Area for laboratory and life science space or as otherwise reasonably established by Landlord in writing from time to time, using an insured contractor or contractors selected by Tenant and approved in writing by Landlord (which approval shall not be unreasonably withheld, delayed or conditioned) and such provider shall not interfere with the use and operation of the Building or Property or Project by Landlord or any other tenant or occupant thereof. Tenant shall also be responsible to arrange for, at Tenant's sole cost and expense, any waste (including biomedical, hazardous and laboratory waste) and refuse removal services for Tenant's operations at the Premises. All waste (including biomedical, hazardous and laboratory waste) and refuse removal shall be performed in compliance with applicable Hazardous Materials Laws using licensed laboratory waste disposal companies. All ordinary trash (i.e., non-organic and non-controlled substances that do not constitute Hazardous Materials) shall be removed by Tenant, at its sole cost and expense, from the Premises to the dumpster to be provided by Tenant on the dumpster pad designated by Landlord (which dumpster pad is currently located in the area shown on Exhibit A-5 attached hereto, provided that Landlord reserves the right to relocate such dumpster pad or designate a different area for Tenant's dumpster from time to time), but all biomedical, hazardous and laboratory waste and refuse shall be stored in the Premises and shall be removed at Tenant's sole cost and expense, by licensed (where required by Legal Requirements), insured and qualified contractors retained by Tenant and approved in advance by Landlord (which approval shall not be unreasonably withheld, delayed or conditioned) and on a sufficient basis to ensure that the Premises are at all times kept neat and clean. Tenant shall also cause all extermination of vermin in the Premises or resulting from Tenant's use of the Premises to be performed by companies reasonably approved by Landlord in writing and shall contract and utilize pest extermination services as reasonably necessary or as requested by Landlord.

ARTICLE XII

Alterations

Section 12.1– Landlord's Approval.

(a) Landlord's Approval Required. Tenant shall have the right to make alterations, additions, installations or improvements to the Premises (collectively "Alterations"), whether before or during the Lease Term, subject to obtaining Landlord's prior written approval, which approval shall not at any time be unreasonably withheld, conditioned or delayed.

Notwithstanding anything to the contrary contained herein, Tenant shall not make Alterations to the Premises which (i) adversely affect any structural or exterior element of the Building or any Building systems, (ii) adversely affect the exterior design, size, height or other exterior dimensions of the Building, or (iii) enlarge the rentable square footage of the Premises, in each case without Landlord's prior written approval.

(b) Alterations Permitted without Landlord's Approval. Notwithstanding the terms of Section 12.1(a), Tenant shall have the right, without obtaining the prior approval of Landlord, but upon written notice to Landlord given at least thirty (30) days prior to the commencement of any work (which notice shall specify the nature of the work in reasonable detail), to make Alterations to the Premises which: (i) are solely within the interior of the Premises, and do not affect the exterior of the Premises and/or the Building (including signs on windows); (ii) do not adversely affect the roof, any structural element of the Building, the mechanical, electrical, plumbing, heating, ventilating, air-conditioning and fire protection systems of the Building; (iii) in each instance cost less than Two Hundred Fifty Thousand Dollars ($250,000.00),and (iv) in all respects, comply with Legal Requirements.

(c) Specialty Improvements. At the time Landlord approves any of Tenant's Alterations, Landlord shall notify Tenant which of the subject Alterations, if any, constitute Specialty Improvements and whether Tenant will be required either to remove such Specialty Improvements at the end of the Term (or to pay the reasonable cost of such removal upon such removal by Landlord). "Specialty Improvements" shall mean any lab or manufacturing improvements of an unusual nature not typically found in office or laboratory facilities and would require unusual expense to remove and to use the Premises for office laboratory or manufacturing use, including any mechanical mezzanines or other manufacturing improvements. It is understood that the customary vivarium, lab systems, facilities and equipment (including lab benches), and structural reinforcements installed by Tenant, full kitchens, and any other similar Alterations shall remain in the Premises at the expiration of the Lease Term, provided that the Premises and all such items remaining therein shall be fully decontaminated and decommissioned prior to the surrender of the same at the expiration or earlier termination of this Lease. It is further understood that any mechanical mezzanines and other manufacturing improvement shall not be removed and shall be surrendered with the Premises.

Section 12.2– Plans; Conformity of Work.

Prior to making any Alterations, Tenant, at its cost and expense, shall submit to Landlord for its approval in accordance with Section 12.1 above, detailed plans and specifications for such proposed Alteration. Landlord will use reasonable efforts to deliver notice of its approval or a statement of its objections (which shall specify in reasonable detail the nature and grounds for such objections) to Tenant's plans and specifications (or any revisions or changes thereof) for such proposed Alteration within ten (10) business days after Landlord's receipt thereof. In the event that Landlord fails to respond within such ten (10) business day period, Tenant may deliver a Deemed Approval Reminder, and if Landlord fails to respond within five (5) business days of Landlord's receipt of such Deemed Approval Reminder, then Landlord's approval of such plans and specifications for such proposed Alteration shall be deemed granted. Landlord's review and approval of any plans and specifications for Alterations and consent to perform work shall not be deemed an agreement by Landlord that such plans, specifications and work conform with Legal

Requirements and requirements of insurers of the Building and the other requirements of the Lease with respect to Tenant's insurance obligations (herein called "Insurance Requirements") nor deemed a waiver of Tenant's obligations under this Lease with respect to Legal Requirements and Insurance Requirements nor impose any liability or obligation upon Landlord with respect to the completeness, design sufficiency or compliance of such plans, specifications and work with Legal Requirements and Insurance Requirements. Further, Tenant acknowledges that Tenant is acting for its own benefit and account, and that Tenant shall not be acting as Landlord's agent in performing any work in the Premises, accordingly, no contractor, subcontractor or supplier shall have a right to lien Landlord's interest in the Project in connection with any such work. Tenant covenants and agrees that any Alterations made by it to or upon the Premises shall be done in a good and workmanlike manner and in compliance with all Legal Requirements and Insurance Requirements now or hereafter in force, that materials of first and otherwise good quality shall be employed therein, that the structure of the Building shall not be endangered or impaired thereby and that the Premises shall not be diminished in value thereby.

Section 12.3– Performance of Work, Governmental Permits and Insurance.

All of Tenant's Alterations shall be coordinated with any work being performed by or for Landlord (including, without limitation, the Landlord's Delivery Work) and in such manner as to maintain harmonious labor relations and not to damage the Building or Project or interfere with the construction on or operation of the Project and, except for installation of furnishings, shall be performed by contractors first approved by Landlord which approval shall not be unreasonably withheld, conditioned or delayed. Tenant shall procure all necessary governmental permits before making any repairs, alterations, other improvements or installations. Tenant agrees to indemnify, defend, and hold harmless Landlord from any and all injury, loss, claims or damage to any person or property occasioned by or arising out of the Tenant's doing of any such work whether the same be performed prior to or during the Term of this Lease. In addition, Tenant shall cause each contractor to carry insurance in accordance with Section 14.4 hereof and to deliver to Landlord certificates of all such insurance prior to such contractor's entry on to the Premises. Tenant shall also prepare and submit to Landlord a set of as-built plans, in both print and electronic forms, showing such work performed by Tenant to the Premises promptly after any such Alterations are substantially complete and promptly after any wiring or cabling for Tenant's computer, telephone and other communications systems is installed by Tenant or Tenant's contractor. Without limiting any of Tenant's obligations hereunder, Tenant shall be responsible, as Additional Rent, for the costs of any Alterations in or to the Building that are required in order to comply with Legal Requirements as a result of Tenant's particular use or any work performed by Tenant. Landlord shall have the right to provide reasonable rules and regulations (which shall be applied in a non-discriminatory manner) relative to the performance of any Alterations by Tenant hereunder and Tenant shall abide by all such reasonable rules and regulations and shall cause all of its contractors to so abide including, without limitation, payment for the reasonable Building-standard costs of using Building services. Tenant acknowledges and agrees that Landlord shall be the owner of any additions, alterations and improvements in the Premises or the Building to the extent paid for by Landlord.

Section 12.4– Liens.

Tenant covenants and agrees to pay promptly when due the entire cost of any work done in the

Premises by Tenant, its agents, employees or contractors, and not to cause or permit any liens for labor or materials performed or furnished in connection therewith to attach to the Premises or the Building or the Project and promptly (but in no event exceeding ten (10) days after Tenant's notice of the filing of same) to discharge any such liens which may so attach.

Section 12.5– Nature of Alterations.

All work, construction, repairs or Alterations made to or upon the Premises, shall become part of the Premises and shall become the property of Landlord and remain upon and be surrendered with the Premises as a part thereof upon the expiration or earlier termination of the Lease Term, except as follows:

(a) All furniture, equipment, trade fixtures and other personal property of Tenant (including, without limitation, any satellite or microwave dish or any communications equipment and any telephone switch gear, and any security or monitoring equipment installed by Tenant) whether by law deemed to be a part of the realty or not, installed at any time by Tenant or any person claiming under Tenant shall remain the property of Tenant or persons claiming under Tenant and may be removed by Tenant or any person claiming under Tenant at any time or times during the Lease Term or any occupancy by Tenant thereafter and shall be removed by Tenant at the expiration or earlier termination of the Lease Term if so requested by Landlord. Tenant shall repair any damage to the Premises occasioned by the removal by Tenant or any person claiming under Tenant of any such property from the Premises.

(b) At the expiration or earlier termination of the Lease Term, Tenant shall remove any Specialty Improvements made with Landlord's consent during the Lease Term for which such removal was made a condition of such consent under Section 12.1(c). Upon such removal Tenant shall repair any damage occasioned by such removal and restoration.

(c) If Tenant shall make any Alterations to the Premises for which Landlord's approval is required under Section 12.1 without obtaining such approval, then at Landlord's request at any time during the Lease Term, and at any event at the expiration or earlier termination of the Lease Term, Tenant shall remove such Alterations and restore the Premises to their condition prior to same and repair any damage occasioned by such removal and restoration. Nothing herein shall be deemed to be a consent to Tenant to make any such Alterations, the provisions of Section 12.1 being applicable to any such work.

Section 12.6– Costs and Expenses.

Landlord shall not charge any costs or fees to review plans or work for Tenant Improvements or Tenant's Alterations.

Section 12.7– Increase in Taxes. [Intentionally Deleted.]

ARTICLE XIII

Maintenance of Building, Etc.

Section 13.1– Landlord Repairs.

Landlord agrees to keep, or cause to be kept, in good order, condition and repair (i) the roofs, foundations, exterior walls (including, without limitation, any glass and windows), and structural portions of the Premises, (ii) the Base Building systems; and (iii) all other common areas of the Property. Notwithstanding the foregoing, Landlord shall in no event be responsible to Tenant for (x) any damage to the Premises or the Building caused by any act or negligence of Tenant, its employees, agents, licensees, or contractors, or (y) the maintenance and repair of any systems servicing the Premises that are installed by or on behalf of Tenant.

Section 13.2– Tenant Repairs.

Except as specifically herein otherwise provided, Tenant agrees that from and after the Commencement Date, and thereafter until the end of the term hereof, it will keep neat and clean and maintain in good order, condition and repair (including, without limitation, replacements), the Premises and every part thereof, including, without limitation, all signage and the exterior and interior portions of all doors, all plumbing and sewage facilities within the Premises, fixtures and interior walls, floors, ceilings, signs (including exterior signs where permitted), and all wiring, electrical systems, interior building appliances, supplemental HVAC systems and equipment, and similar equipment, and all other improvements, systems, equipment and appliances installed by or on behalf of Tenant.

ARTICLE XIV

Indemnity and Commercial/General Liability Insurance

Section 14.1– Tenant's Indemnity

(a) Indemnity. To the fullest extent permitted by law, and subject to Section 14.13 hereof, Tenant agrees to indemnify and save harmless Landlord Parties from and against all claims of whatever nature arising from or claimed to have arisen from (i) any willful misconduct or negligence of Tenant Parties (as hereinafter defined); (ii) any accident, injury or damage whatsoever caused to any person, or to the property of any person, occurring in the Premises from the earlier of (A) the date on which any Tenant Party first enters the Premises for any reason or (B) the Commencement Date, and thereafter throughout and until the end of the Lease Term, and after the end of the Lease Term for so long after the end of the Lease Term as Tenant or anyone acting by, through or under Tenant is in occupancy of the Premises or any portion thereof; (iii) any accident, injury or damage whatsoever occurring outside the Premises but within the Building, or on common areas or the Project, where such accident, injury or damage results, or is claimed to have resulted, from any willful misconduct or negligence on the part of any of Tenant Parties; or (iv) any breach of this Lease by Tenant. Tenant shall pay such indemnified amounts as they are incurred by Landlord Parties. This indemnification shall not be

construed to deny or reduce any other rights or obligations of indemnity that any of Landlord Parties may have under this Lease or the common law.

(b) Breach. In the event that Tenant breaches any of its indemnity obligations hereunder or under any other contractual or common law indemnity: (i) Tenant shall pay to Landlord Parties all liabilities, loss, cost, or expense (including attorney's fees) incurred as a result of said breach; and (ii) Landlord Parties may deduct and offset from any amounts due to Tenant under this Lease any amounts owed by Tenant pursuant to this Section 14.1(b).

(c) No limitation. The indemnification obligations under this Section 14.1 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Tenant or any subtenant or other occupant of the Premises under workers' compensation acts, disability benefit acts, or other employee benefit acts. Tenant waives any immunity from or limitation on its indemnity or contribution liability to Landlord Parties based upon such acts.

(d) Subtenants and other occupants. Tenant shall require its subtenants and other occupants of the Premises to provide similar indemnities to Landlord Parties in a form reasonably acceptable to Landlord.

(e) Survival. The terms of this Section 14.1 shall survive any termination or expiration of this Lease.

(f) Costs. The foregoing indemnity and hold harmless agreement shall include indemnity for all costs, expenses and liabilities (including, without limitation, reasonable attorneys' fees and disbursements) incurred by Landlord Parties in connection with any such claim or any action or proceeding brought thereon, and the defense thereof. In addition, in the event that any action or proceeding shall be brought against one or more Landlord Parties by reason of any such claim, Tenant, upon request from Landlord Party, shall resist and defend such action or proceeding on behalf of Landlord Party by counsel appointed by Tenant's insurer (if such claim is covered by insurance without reservation) or otherwise by counsel reasonably satisfactory to Landlord Party. Landlord Parties shall not be bound by any compromise or settlement of any such claim, action or proceeding without the prior written consent of such Landlord Parties.

Section 14.2– Tenant's Risk.

Tenant agrees to use and occupy the Premises, and to use such other portions of the Building and the Project as Tenant is given the right to use by this Lease at Tenant's own risk. Landlord Parties shall not be liable to Tenant Parties for any damage, injury, loss, compensation, or claim (including, but not limited to, claims for the interruption of or loss to a Tenant Party's business) based on, arising out of or resulting from any cause whatsoever, including, but not limited to, repairs to any portion of the Premises or the Building or the Project, any fire, robbery, theft, mysterious disappearance, or any other crime or casualty, the actions of any other tenants or occupants of the Building or of any other person or persons, or any leakage in any part or portion of the Premises or the Building or the Project, or from water, rain or snow that may leak into, or flow from any part of the Premises or the Building or the Project, or from drains, pipes or

plumbing fixtures in the Building or the Project except if due to the intentional misconduct or negligence of any Landlord Party and so long as Landlord complies with its obligations under this Lease. Any leasehold improvements, property or personal effects stored or placed in or about the Premises shall be at the sole risk of Tenant Party, and neither Landlord Parties nor their insurers shall in any manner be held responsible therefor except if due to the intentional misconduct or negligence of any Landlord Party. Landlord Parties shall not be responsible or liable to a Tenant Party, or to those claiming by, through or under a Tenant Party, for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying adjoining premises or any part of the premises adjacent to or connecting with the Premises or any part of the Project or otherwise except if due to the intentional misconduct or negligence of any Landlord Party. The provisions of this Section shall be applicable to the fullest extent permitted by law, and until the expiration or earlier termination of the Lease Term, and during such further period as Tenant may use or be in occupancy of any part of the Premises or of the Building.

Section 14.3– Tenant's Commercial General Liability Insurance.

Notwithstanding anything contained in this Lease to the contrary, Tenant agrees to maintain in full force on or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Commencement Date, and thereafter throughout and until the end of the Term, and after the end of the Term for so long as Tenant or anyone acting by, through or under Tenant is in occupancy of the Premises or any portion thereafter, a policy of commercial general liability insurance, on an occurrence basis, covering the Premises and all operations of the Tenant in or about the Premises against claims for bodily injury, property damage and product liability and to include contractual liability coverage insuring Tenant's indemnification obligations under this Lease, issued on a form at least as broad as Insurance Services Office ("ISO") Commercial General Liability Coverage "occurrence" form CG 00 01 10 01 or another Commercial General Liability "occurrence" form providing equivalent coverage. The minimum limits of liability of such insurance shall be $5,000,000.00 per occurrence and in the aggregate on a per location basis and $2,000,000 for products/completed operations aggregate. Such limits may be achieved by a combination of CGL and umbrella/excess liability policies provided umbrella/excess policies are written on a follow form basis. In addition, in the event Tenant hosts a function in the Premises or the Common Areas (subject to Landlord's right to approve the same in the Common Areas as set forth in more detail in the Rules and Regulations), Tenant agrees to obtain, and cause any persons or parties providing services for such function to obtain, the commercially reasonable insurance coverages as reasonably determined by Landlord (including liquor liability coverage, if applicable) and provide Landlord with evidence of the same. The liability coverage will include at least those coverages generally designated Premises/Operations, Products/Completed Operations, and contain no exclusions or endorsements removing or limiting coverage for insured contracts. Notwithstanding the fact that any Tenant liability may be covered by insurance, Tenant's liability shall in no way be limited by the amount of insurance recovery or the amount of insurance in force or required by any provisions of this Lease.

Section 14.4– Tenant's Property Insurance.

Tenant shall maintain at all times during the term of this Lease, and during such earlier time as Tenant may be performing work in or to the Premises or have property, fixtures, furniture,

equipment, machinery, supplies, or wares on the Premises, and continuing thereafter so long as Tenant is in occupancy of any part of the Premises, business interruption insurance and insurance against loss or damage covered by the so-called ISO Special Cause of Loss form policy (or its equivalent) with respect to Tenant's property, fixtures, furniture, equipment, machinery, supplies, and wares, and all alterations, improvements and other modifications made by or on behalf of Tenant in the Premises, including, without limitation, the Tenant Improvements, and other property of Tenant located at the Premises (collectively "Tenant's Property"). The business interruption insurance required by this Section 14.4 shall be in minimum amounts typically carried by prudent tenants engaged in similar operations with minimum limits covering a period of one (1) year. The ISO Special Cause of Loss form policy (or its equivalent) insurance required by this Section shall be in an amount at least equal to the full replacement cost of Tenant's Property. Landlord and such additional persons or entities as Landlord may reasonably request shall be named as loss payees, as their interests may appear, on the policy or policies required by this Lease. In the event of loss or damage covered by the ISO Special Cause of Loss form policy (or its equivalent) insurance required by this Lease, the responsibilities for repairing or restoring the loss or damage shall be determined in accordance with Article XVI. To the extent that Landlord is obligated to pay for the repair or restoration of the loss or damage covered by the policy, Landlord shall be paid the proceeds of the ISO Special Cause of Loss form policy (or its equivalent) insurance covering the loss or damage. To the extent Tenant is obligated to pay for the repair or restoration of the loss or damage, covered by the policy, Tenant shall be paid the proceeds of the ISO Special Cause of Loss form policy (or its equivalent) insurance covering the loss or damage. If both Landlord and Tenant are obligated to pay for the repair or restoration of the loss or damage covered by the policy, the insurance proceeds shall be paid to each of them in the pro rata proportion of their obligations to repair or restore the loss or damage. If the loss or damage is not repaired or restored (for example, if the lease is terminated pursuant to Article XVI), the insurance proceeds shall be paid to Landlord and Tenant in the pro rata proportion of their relative contributions to the cost of the leasehold improvements covered by the policy.

For any tenant work in the Premises, including, without limitation, the Tenant Improvements and any Alterations, Tenant shall obtain or have its contractors and subcontractors obtain (and during the performance of such work keep in force) insurance that meets the Landlord's insurance requirements for construction projects, including without limitation, builders' risk insurance.

Section 14.5– Tenant's Other Insurance.

Tenant agrees to maintain in full force on or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Commencement Date, and thereafter throughout the end of the Term, and after the end of the Term for so long after the end of the Term as Tenant or anyone acting by, through or under Tenant is in occupancy of the Premises or any portion thereafter, (1) comprehensive automobile liability insurance (covering any automobiles owned or operated by Tenant) issued on a form at least as broad as ISO Business Auto Coverage form CA 00 01 07 97 or other form providing equivalent coverage; (2) worker's compensation insurance; and (3) employer's liability insurance. Such automobile liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident. Such worker's compensation insurance shall carry minimum limits as defined by the law of the jurisdiction in which the Premises are located (as the same may be amended from time

to time). Such employer's liability insurance shall be in an amount not less than One Million Dollars ($1,000,000) for each accident, One Million Dollars ($1,000,000) disease-policy limit, and One Million Dollars ($1,000,000) disease-each employee.

Section 14.6– Requirements for Tenant's Insurance.

All insurance required to be maintained by Tenant pursuant to this Lease shall be maintained with responsible companies that are licensed to do business, and are in good standing in the Commonwealth of Massachusetts and that have a rating of at least "B" and are within a financial size category of not less than "Class VIII" in the most current Best's Key Rating Guide or such similar rating as may be reasonably selected by Landlord. All such insurance shall: (1) be reasonably acceptable in form and content to Landlord; (2) be primary and noncontributory; and (3) if commercially available, contain an endorsement prohibiting cancellation, failure to renew, reduction of amount of insurance, or change in coverage without the insurer first giving Landlord thirty (30) days' prior written notice (by certified or registered mail, return receipt requested, or by fax or email) of such proposed action, except for cancellation due to non-payment of premium which shall be ten (10) days. No such policy shall be provided through self-insurance without written approval of the Landlord. Such deductibles and self-insured retentions shall be deemed to be "insurance" for purposes of the waiver in Section 14.13 below. Landlord reserves the right from time to time to require Tenant to obtain higher minimum amounts of insurance, provided such higher limits are then customarily carried on first-class mixed-use developments. The minimum amounts of insurance required by this Lease shall not be reduced by the payment of claims or for any other reason. In the event Tenant shall fail to obtain or maintain any insurance meeting the requirements of this Article XIV, or to deliver such policies or certificates as required by this Article XIV, Landlord may, at its option, on thirty (30) days' notice to Tenant, procure such policies for the account of Tenant, and the reasonable cost thereof shall be paid to Landlord within five (5) days after delivery to Tenant of bills therefor.

Tenant shall also carry insurance against such other hazards and in such amounts as may be customarily carried by tenants, owners and operations of similar properties as Landlord may reasonably require for its protection from time to time.

Section 14.7– Additional Insureds.

To the fullest extent permitted by law, the commercial general liability and auto insurance carried by Tenant pursuant to this Lease, and any additional liability insurance carried by Tenant pursuant to Section 14.3 of this Lease, shall name Landlord, Landlord's managing agent, and such other persons as Landlord may reasonably request from time to time (provided such names are provided to Tenant in writing) as additional insureds (collectively, "Additional Insureds"). These Additional Insureds shall be endorsed onto the relevant policies. Such insurance shall provide primary coverage without contribution from any other insurance carried by or for the benefit of Landlord, Landlord's managing agent, or other Additional Insureds. Such insurance shall also waive any right of subrogation against each Additional Insured.

Section 14.8– Certificates of Insurance.

On or before the earlier of (i) the date on which any Tenant Party first enters the Premises for any reason or (ii) the Commencement Date, Tenant shall furnish Landlord with certificates evidencing the insurance coverage required by this Lease, and renewal certificates shall be furnished to Landlord at least annually thereafter, and at least ten (10) days prior to the expiration date of each policy for which a certificate was furnished. Failure by Tenant to provide the certificates or letters required by this Section 14.8 shall not be deemed to be a waiver of the requirements in this Section 14.8.

Section 14.9– Subtenants and Other Occupants.

Tenant shall require its subtenants and other occupants of the Premises to provide written documentation evidencing the obligation of such subtenant or other occupant to indemnify Landlord Parties to the same extent that Tenant is required to indemnify Landlord Parties pursuant to Section 14.1 above, and to maintain insurance that meets the requirements of this Article XIV, and otherwise to comply with the requirements of this Article XIV. Tenant shall require all such subtenants and occupants to supply certificates of insurance evidencing that the insurance requirements of this Article XIV have been met and shall forward such certificates to Landlord on or before the earlier of (i) the date on which the subtenant or other occupant or any of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees, principals, contractors, licensees, agents, invitees or representatives first enters the Premises or (ii) the commencement of the sublease. Tenant shall be responsible for identifying and remedying any deficiencies in such certificates or policy provisions.

Section 14.10– No Violation of Building Policies

Tenant shall not commit or knowingly permit any violation of the policies of fire, boiler, sprinkler, water damage or other insurance covering the Property and/or the fixtures, equipment and property therein carried by Landlord, or do or knowingly permit anything to be done, or keep or permit anything to be kept, in the Premises, which in case of any of the foregoing (i) would result in termination of any such policies, (ii) would adversely affect Landlord's right of recovery under any of such policies, or (iii) would result in reputable and independent insurance companies refusing to insure the Property or the property of Landlord in amounts reasonably satisfactory to Landlord.

Section 14.11– Tenant to Pay Premium Increases

If, because of anything done, caused or knowingly permitted to be done, or omitted by Tenant (or its subtenant or other occupants of the Premises), the rates for liability, fire, boiler, sprinkler, water damage or other insurance on the Building or the Property and equipment of Landlord or any other tenant or subtenant or occupant in the Building or the Property shall increase as a direct result of such Tenant activity and be higher than they otherwise would be (Landlord acknowledging that Tenant's use of the Premises solely for the Permitted Use shall not do so), Tenant shall reimburse Landlord for the additional insurance premiums thereafter actually paid by Landlord which shall have been charged because of the aforesaid reasons, such

reimbursement to be made from time to time within ten (10) days after Landlord's demand. Landlord shall promptly provide Tenant with notice of any such claim by any insurance carrier, together with reasonable evidence of such cause by Tenant, and Tenant shall have a reasonable opportunity to cure such action or to contest such claim for increase.

Section 14.12– Landlord's Insurance.

(a) Required insurance. Landlord shall maintain (i) commercially reasonable Commercial General Liability insurance and (ii) insurance against loss or damage with respect to the Property on a Special Cause of Loss form policy or equivalent type insurance form, with customary exceptions, subject to such commercially reasonable deductibles as Landlord may determine, in an amount equal to at least the replacement value of the Property. Such insurance shall be maintained with an insurance company selected by Landlord. Payment for losses thereunder shall be made solely to Landlord.

(b) Optional insurance. Landlord may maintain such additional insurance with respect to the Property, including, without limitation, earthquake insurance, terrorism insurance, flood insurance, liability insurance and/or rent insurance, as Landlord may in its sole discretion elect. Landlord may also maintain such other insurance as may from time to time be reasonably required by the holder of any mortgage on the Property.

(c) Blanket and self-insurance. Any or all of Landlord's insurance may be provided by blanket coverage maintained by Landlord or any affiliate of Landlord under its insurance program for its portfolio of properties (but in no event shall Landlord or any affiliate of Landlord insure under a program of self-insurance), and in such event the amounts payable by Tenant under Section 9.1 of this Lease shall include the portion of the reasonable cost of blanket insurance that is allocated to the Property.

(d) No obligation. Landlord shall not be obligated to insure, and shall not assume any liability of risk of loss for, Tenant's Property, including any such property or work of Tenant's subtenants or occupants. Landlord will also have no obligation to carry insurance against, nor be responsible for, any loss suffered by Tenant, subtenants or other occupants due to interruption of Tenant's or any subtenant's or occupant's business.

Section 14.13– Waiver of Subrogation.

To the fullest extent permitted by law, the parties hereto waive and release any and all rights of recovery against the other, and agree not to seek to recover from the other or to make any claim against the other, and in the case of Landlord, against all Tenant Parties (as hereinafter defined), and in the case of Tenant, against all Landlord Parties, for any loss or damage incurred by the waiving/releasing party to the extent such loss or damage is insured under any insurance policy required by this Lease or which would have been so insured had the party carried the insurance it was required to carry hereunder. Tenant shall obtain from its subtenants and other occupants of the Premises a similar waiver and release of claims against any or all of Tenant or Landlord. In addition, the parties hereto (and in the case of Tenant, its subtenants and other occupants of the Premises) shall procure an appropriate clause in, or endorsement on, any insurance policy required by this Lease pursuant to which the insurance company waives subrogation. The

insurance policies required by this Lease shall contain no provision that would invalidate or restrict the parties' waiver and release of the rights of recovery in this Section. The parties hereto covenant that no insurer shall hold any right of subrogation against the parties hereto by virtue of such insurance policy.

For the purposes of this Lease, the term "Landlord Party" or "Landlord Parties" shall mean Landlord, any affiliate of Landlord, Landlord's managing agent(s) for the Property, each mortgagee (if any), each ground lessor (if any), and each of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees and principals. For the purposes of this Lease, the term "Tenant Party" or "Tenant Parties" shall mean Tenant, any affiliate of Tenant, any permitted subtenant or any other permitted occupant of the Premises, and each of their respective direct or indirect partners, officers, shareholders, directors, members, trustees, beneficiaries, servants, employees and principals.

Section 14.14– C. 186 §15.

The foregoing provisions of this Article XIV (as well as any other provisions in this Lease dealing with indemnity and the like by Tenant of Landlord) shall be deemed to be modified in each case by the insertion in the appropriate place of the language: "except as otherwise provided in Mass. G.L. Ter. Ed., C. 186, §15".

Section 14.15– Landlord Indemnity.

To the fullest extent permitted by law, but excluding to the extent caused by the intentional misconduct or negligence of Tenant, Landlord agrees to indemnify and save harmless Tenant Parties from and against all third party claims of whatever nature occurring in the Common Areas and arising from any willful misconduct or negligence of Landlord Parties. Landlord shall pay such indemnified amounts as they are incurred by Tenant Parties. This indemnification shall not be construed to deny or reduce any other rights or obligations of indemnity that any of Tenant Parties may have under this Lease or the common law. The foregoing indemnity and hold harmless agreement shall include indemnity for all costs, expenses and liabilities (including, without limitation, reasonable attorneys' fees and disbursements) incurred by Tenant Parties in connection with any such claim or any action or proceeding brought thereon, and the defense thereof. In addition, in the event that any action or proceeding shall be brought against one or more Tenant Parties by reason of any such claim, Landlord, upon request from Tenant Party, shall resist and defend such action or proceeding on behalf of Tenant Party by counsel appointed by Landlord's insurer (if such claim is covered by insurance without reservation) or otherwise by counsel reasonably satisfactory to Tenant Party. Tenant Parties shall not be bound by any compromise or settlement of any such claim, action or proceeding without the prior written consent of such Tenant Parties.

ARTICLE XV

Landlord's Access to the Premises

Section 15.1– Landlord Access.

Landlord and its designees shall have the right upon reasonable prior notice (except in the event

of an emergency) to enter upon the Premises at all reasonable hours for the purpose of inspecting or surveying the same, or making repairs, improvements or alterations to the same or exhibiting the same to prospective purchasers, and lenders. Landlord shall use its commercially reasonable efforts to minimize disruption to Tenant's normal business operations in the Premises in connection with any such entry and at Tenant's election, permit Tenant to have a representative present at such time. If repairs are required to be made by Tenant pursuant to the terms hereof or if Tenant is required to perform any other obligation under this Lease, Landlord may demand that Tenant make such repairs or perform such obligation forthwith, and if Tenant refuses or neglects to commence such repairs or performance within thirty (30) days of such demand and diligently complete the same as soon as reasonably practicable thereafter, Landlord may (but shall not be required so to) make or cause such repairs or performance to be done and shall not be responsible to Tenant for any loss or damage that may accrue to its stock or business by reason thereof. If Landlord makes or causes such repairs or performance to be done, or endeavors so to do, Tenant agrees that it will forthwith, within ten (10) days after demand, pay to Landlord the reasonable out of pocket cost thus incurred, and if Tenant shall default in such payment, Landlord shall have the remedies provided in Article XIX hereof.

Section 15.2– Prospective Tenants.

For a period commencing twelve (12) months prior to the termination of this Lease, upon reasonable prior notice, Landlord may have reasonable access to the Premises for the purpose of exhibiting the same to prospective tenants, subject to Tenant's reasonable security requirements and at all times with Tenant to have the right to accompany any persons entering the Premises (except in the case of an emergency).

ARTICLE XVI

Damage Clause

Section 16.1– Partial Damage.

In case during the term hereof the Premises shall be partially damaged (as distinguished from "substantially damaged", as that term is hereinafter defined) by fire or casualty, Landlord shall forthwith proceed to repair such damage and restore the Premises (excluding Tenant's Property) to substantially their condition at the time of such damage, but Landlord shall not be responsible for any delay which may result from any cause beyond Landlord's reasonable control.

Section 16.2– Substantial Damage.

In case during the term hereof the Premises shall be substantially damaged or destroyed by fire or casualty, the risk of which is covered by Landlord's insurance, this Lease shall, except as hereinafter provided, remain in full force and effect, and Landlord shall promptly after such damage and the determination of the net amount of insurance proceeds available to Landlord, restore (consistent, however, with zoning laws and building codes then in existence to the extent applicable to such reconstruction), the Premises (excluding Tenant's Property) to substantially the condition in which the Premises was in at the time of such damage, except as hereinafter provided, but Landlord shall not be responsible for delay which may result from force majeure,

as defined in Section 20.22 hereinbelow. Should the net amount of insurance proceeds available to Landlord be insufficient to cover the cost of restoring the Premises, in the reasonable estimate of Landlord, Landlord may, but shall have no obligation to, supply the amount of such insufficiency and restore the Premises with all reasonable diligence or Landlord may terminate this Lease by giving notice to Tenant not later than a reasonable time (not to exceed thirty (30) days) after Landlord has determined the estimated net amount of insurance proceeds available to Landlord and the estimated cost and the estimated time to complete such restoration, each of which shall be provided to Tenant promptly when the same is made available to Landlord. In case of substantial damage or destruction, as a result of a risk which is not covered by Landlord's insurance, Landlord shall likewise be obligated to rebuild the Premises, all as aforesaid, unless Landlord, within a reasonable time (not to exceed sixty (60) days) after the occurrence of such event, gives written notice to Tenant of Landlord's election to terminate this Lease. If Landlord shall elect to terminate this Lease, as aforesaid, this Lease and the term hereof shall cease and come to an end as of the date of said damage or destruction. In addition to the foregoing, in the event that the Premises shall be substantially damaged, either Landlord or Tenant may terminate this Lease by notice to the other given within sixty (60) days of such damage or destruction.

Section 16.3– Damage During Last Year.

However, if the Premises shall be substantially damaged or destroyed by fire, windstorm, or otherwise within the last year of the term of this Lease, either party shall have the right to terminate this Lease, provided that notice thereof (the "Damage Termination Notice") is given to the other party not later than sixty (60) days after such damage or destruction. If said right of termination is exercised, this Lease and the term hereof shall cease and come to an end thirty (30) days after receipt of the Damage Termination Notice.

Section 16.4– Tenant Restoration.

Unless this Lease is terminated as provided in Section 16.2, Section 16.3 or Section 16.6, if the Premises shall be damaged or destroyed by fire or other casualty, then Tenant shall, as soon thereafter as practicable: (i) repair and restore Tenant's Property, to substantially the condition which such Tenant's Property were in at the time of such casualty and (ii) equip the Premises with trade fixtures and all personal property necessary or proper for the operation of Tenant's business.

Section 16.5– Rent Abatement.

In the event that the provisions of Section 16.1 or Section 16.2 shall become applicable, the Annual Fixed Rent and Additional Rent shall be abated or reduced proportionately during any period in which, by reason of such damage or destruction, there is substantial interference with the operation of the business of Tenant in the Premises (or a portion thereof), having regard to the extent to which Tenant may be required to discontinue its use of the Premises (or a portion thereof) for the Permitted Use, and such abatement or reduction shall continue for the period commencing with such destruction or damage and ending upon the earlier to occur of: (i) the completion by Landlord of such work of repair and/or reconstruction as Landlord is obligated to do, or (ii) the date that Tenant first reoccupies the Premises for the ordinary conduct of its business therein.

Section 16.6– Definitions.

The terms "substantially damaged" and "substantial damage", as used in this Article XVI, shall have reference to damage of such a character as cannot reasonably be expected to be repaired or the premises restored within nine (9) months from the time that such repair or restoration work would be commenced.

ARTICLE XVII

Eminent Domain

Section 17.1– Eminent Domain.

If the Premises, or such portion thereof as to render the balance (when reconstructed) unsuitable for the purposes of Tenant, shall be taken by condemnation or right of eminent domain, either party, upon written notice to the other, shall be entitled to terminate this Lease, provided that such notice is given not later than thirty (30) days after Tenant has been deprived of possession. For the purposes of this Article XVII, any deed or any transfer of title in lieu of any such taking shall be treated as such a taking. Moreover, for the purposes of this Article XVII, such a taking of Tenant's entire leasehold interest hereunder in the Premises (or assignment or termination in lieu thereof) shall be treated as a taking of the entire Premises, and in such event Tenant shall be treated as having been deprived of possession on the effective date thereof. Should any part of the Premises be so taken or condemned, and should this Lease not be terminated in accordance with the foregoing provision, Landlord covenants and agrees within a reasonable time after such taking or condemnation, and the determination of Landlord's award therein, to expend so much as may be necessary of the net amount which may be awarded to Landlord in such condemnation proceedings in restoring the Premises to an architectural unit as nearly like their condition prior to such taking as shall be practicable (excluding Tenant's Property). Should the net amount so awarded to Landlord be insufficient to cover the cost of restoring the Premises, as estimated by Landlord's architect, Landlord may, but shall not be obligated to, supply the amount of such insufficiency and restore said premises as above provided, with all reasonable diligence, or terminate this Lease. Where Tenant has not already exercised any right of termination accorded to it under the foregoing portion of this paragraph, Landlord shall notify Tenant of Landlord's election not later than ninety (90) days after the final determination of the amount of the award. Further, if so much of the Building shall be so taken that continued operation of the Premises would be prohibited by zoning or other applicable law, Landlord or Tenant shall have the right to terminate this Lease by giving notice to the other of its desire so to do not later than thirty (30) days after the effective date of such taking.

Section 17.2– Taking Award.

Out of any award for any taking of the Premises (including, without limitation, any taking of Tenant's leasehold interest as aforesaid), in condemnation proceedings or by right of eminent domain, Landlord shall be entitled to receive and retain the amounts awarded for such Premises and for Landlord's business loss. Tenant shall be entitled to receive and retain only such amounts as may be specifically awarded to it in any such condemnation proceedings, because of moving expenses and/or the taking of its fixtures or furniture and its leasehold improvements to

the extent Landlord's award is not thereby reduced and Tenant is not otherwise reimbursed for the same by Landlord.

Section 17.3– Rent Abatement.

In the event of any such taking of the Premises, the Annual Fixed Rent and Additional Rent, or a fair and just proportion thereof, according to the nature and extent of the damage sustained, shall be suspended or abated.

ARTICLE XVIII

Bankruptcy or Insolvency

Section 18.1– Bankruptcy.

If Tenant shall become a debtor under the United States Bankruptcy Code, 11 U.S.C. §§101 et seq. (the "Bankruptcy Code") then, to the extent that the Bankruptcy Code may be applicable or affect the provisions of this Lease, the following provisions shall also be applicable. If the trustee or debtor-in-possession shall fail to elect to assume this Lease within sixty (60) days after the commencement of a case under the Bankruptcy Code, this Lease shall be deemed to have been rejected; and Landlord shall be thereafter immediately entitled to possession of the Premises and this Lease shall be terminated subject to and in accordance with the provisions of this Lease and of law (including such provisions for damages). No election to assume (and, if applicable to assign) this Lease by the trustee or debtor-in-possession shall be permitted or effective unless: (i) all defaults shall have been cured and Landlord shall have been provided with adequate assurances reasonably satisfactory to Landlord, including any reasonably required guaranties and/or security deposits; and (ii) neither such assumption nor the operation of the Premises subsequent thereto shall, in Landlord's reasonable judgment, cause or result in any breach or other violation of any provision of this or any applicable lease, mortgage or other contract; and (iii) the assumption and, if applicable, the assignment of this Lease satisfies in full the provisions of the Bankruptcy Code, including, without limitation, Sections 365(b)(1) and (3) and (f)(2); and (iv) the assumption has been ratified and approved by order of such court or courts as have final jurisdiction over the Bankruptcy Code and the case. No assignment of this Lease by the trustee or debtor-in-possession shall be permitted or effective unless the proposed assignee likewise shall have satisfied (i), (ii), (iii) and (iv) of the preceding sentence regarding such assignment and any such assignment, shall, without limitation, be subject to the provisions of Section 8.3 hereof. When pursuant to the Bankruptcy Code the trustee or debtor-in-possession is obligated to pay reasonable use and occupancy charges, such charges shall not be less than the Annual Fixed Rent and other charges specified herein to be payable by Tenant. Neither Tenant's interest or estate in the Premises herein or created hereby nor any lesser interest or estate of Tenant shall pass to anyone under any law of any state or jurisdiction without the prior written consent of Landlord. In no event shall this Lease, if the term hereof has expired or has been terminated in accordance with the provisions of this Lease, be revived, and no stay or other proceedings shall nullify, postpone or otherwise affect the expiration or earlier termination of the term of this Lease pursuant to the provisions of this Article XVIII or prevent Landlord from regaining possession of the Premises thereupon.

ARTICLE XIX

Landlord's Remedies

Section 19.1– Event of Default.

Any one of the following shall be deemed to be an "Event of Default":

(a) Failure on the part of Tenant to make any payment of Rent or any other payment required hereunder, as and when due, and such failure shall continue for a period of five (5) business days after notice thereof from Landlord to Tenant; provided, however, an Event of Default shall occur hereunder without any obligation of Landlord to give any notice if Landlord has given Tenant written notice under this Section 19.1(A) on more than two (2) occasions during the twelve (12) month interval preceding such failure by Tenant.

(b) Tenant shall fail to perform or observe any other requirement, term, covenant or condition of this Lease on the part of Tenant to be performed or observed and such failure shall continue for thirty (30) days after written notice thereof from Landlord to Tenant, or if said default shall reasonably require longer than thirty (30) days to cure, if Tenant shall fail to commence to cure said default within thirty (30) days after written notice thereof and/or fail to diligently prosecute the curing of the same to completion with due diligence; or

(c) The commencement of any of the following proceedings, with such proceeding not being dismissed within six (6) months after it has begun: (i) the estate hereby created being taken on execution or by other process of law; (ii) Tenant being judicially declared bankrupt or insolvent according to law; or (iii) a petition being filed for the reorganization of Tenant under any provisions of the Bankruptcy Code or any federal or state law now or hereafter enacted; or

(d) Tenant shall fail to maintain the insurance coverages required in this Lease or violates Tenant's covenants under Article XIV of this Lease, and such failure continues for five (5) business days after written notice from Landlord to Tenant thereof.

Section 19.2– Termination.

Should any Event of Default occur and be continuing then, notwithstanding any license of any former breach of covenant or waiver of the benefit hereof or consent in a former instance, Landlord lawfully may, in addition to any remedies available to Landlord under applicable statutes or case law, or otherwise, immediately or at any time thereafter, and, to the maximum extent permitted by law, without demand or notice (and Tenant hereby expressly waives any notice to quit possession of the Premises) as may be required by law, enter into and upon the Premises or any part thereof in the name of the whole and repossess the same as of Landlord's former estate, and expel Tenant and those claiming through or under it and remove its or their effects without being deemed guilty of any manner of trespass, and without prejudice to any remedies which might otherwise be used for arrears of Rent or preceding breach of covenant and/or Landlord may send written notice to Tenant terminating the term of this Lease; and upon the first to occur of: (i) entry as aforesaid; or (ii) the fifth (5th) day following the sending of such notice of termination, the term of this Lease shall terminate.

Section 19.3– Remedies.

Tenant covenants and agrees, notwithstanding any termination of this Lease as aforesaid or any entry or re-entry by Landlord, whether by summary proceedings, termination, or otherwise, to pay and be liable for on the days originally fixed herein for the payment thereof, amounts equal to the several installments of Rent and other charges reserved as they would, under the terms of this Lease, become due if this Lease had not been terminated or if Landlord had not entered or re-entered, as aforesaid, and whether the Premises be relet or remain vacant, in whole or in part, or for a period less than the remainder of the term, and for the whole thereof; but in the event the Premises be relet by Landlord, Tenant shall be entitled to a credit in the net amount of rent received by Landlord in reletting, after deduction of all expenses incurred in reletting the Premises (including, without limitation, remodeling costs, brokerage fees, and the like), and in collecting the rent in connection therewith. Landlord agrees to use reasonable efforts to relet the Premises after Tenant vacates the same in the event this Lease is terminated based upon an Event of Default by Tenant hereunder. The marketing of the Premises in a manner similar to the manner in which Landlord markets other premises within Landlord's control within the Property, shall be deemed to have satisfied Landlord's obligation to use "reasonable efforts" hereunder. In no event shall Landlord be required to (i) solicit or entertain negotiations with any other prospective tenant for the Premises until Landlord obtains full and complete possession of the Premises (including, without limitation, the final and unappealable legal right to relet the Premises free of any claim of Tenant), (ii) relet the Premises before leasing other vacant space in the Building, or (iii) lease the Premises for a rental less than the current fair market rent then prevailing for similar space in the Building. Landlord shall be entitled to collect the foregoing damages until such time, if any, as Landlord may elect, as an alternative to the foregoing damages, that Tenant pay to Landlord, as damages, such a sum as at the time of such election represents the discounted present value (discounted at the Prime Rate) of the amount of the excess, if any, of the then value of the total Rent and other benefits which would have accrued to Landlord under this Lease for the remainder of the lease term if the lease terms had been fully complied with by Tenant over and above the then cash rental value in advance of the premises for the balance of the term. In lieu of such alternative, at the election of Landlord, Tenant will upon termination due to an Event of Default pay to Landlord as liquidated damages and not as a penalty the sum of one (1) full year's Rent and other charges. To induce Landlord to enter into this Lease, (i) Tenant confirms and agrees that this transaction is a commercial and not a consumer transaction, and (ii) Tenant hereby waives any right to trial by jury in any action, proceeding or counterclaim brought by Landlord or Tenant on any matters whatsoever arising out of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant's use or occupancy of the Premises, and/or any claim of injury or damage, including, but not limited to, any summary process eviction action. In addition, Tenant shall pay to Landlord all costs of enforcing the terms of this Article XIX, including, without limitation, reasonable attorneys' fees and costs.

ARTICLE XX

Miscellaneous Provisions

Section 20.1– Waiver.

Failure on the part of Landlord or Tenant to complain of any action or non-action on the part of the other, no matter how long the same may continue, shall never be deemed to be a waiver by Landlord or Tenant, respectively of any of its rights hereunder. Further, it is covenanted and agreed that no waiver at any time of any of the provisions hereof by Landlord or Tenant shall be construed as a waiver of any of the other provisions hereof, and that a waiver at any time of any of the provisions hereof shall not be construed as a waiver at any subsequent time of the same provisions. The consent or approval of Landlord to or of any action by Tenant requiring Landlord's consent or approval shall not be deemed to waive or render unnecessary Landlord's consent or approval to or of any subsequent similar act by Tenant.

No payment by Tenant, or acceptance by Landlord, of a lesser amount than shall be due from Tenant to Landlord shall be treated otherwise than as a payment on account. The acceptance by Landlord of a check for a lesser amount with an endorsement or statement thereon, or upon any letter accompanying such check, that such lesser amount is payment in full, shall be given no effect, and Landlord may accept such check without prejudice to any other rights or remedies which Landlord may have against Tenant.

Section 20.2– Covenant of Quiet Enjoyment.

This Lease is subject and subordinate to all matters of record. Tenant, subject to the terms and provisions of this Lease on payment of the Rent and observing, keeping and performing all of the terms and provisions of this Lease on its part to be observed, kept and performed prior to the expiration of any applicable notice and/or cure periods, shall lawfully, peaceably and quietly have, hold, occupy and enjoy the Premises during the term hereof (exclusive of any period during which Tenant is holding over after the expiration or termination of this Lease without the consent of Landlord) without hindrance or ejection by any persons lawfully claiming under Landlord; but it is understood and agreed that this covenant and any and all other covenants of Landlord contained in this Lease shall be binding upon Landlord and Landlord's successors only with respect to breaches occurring during Landlord's and Landlord's successors' respective ownership of Landlord's interest hereunder. Tenant shall neither assert nor seek to enforce any claim for breach of this Lease against any of Landlord's assets other than Landlord's interest in the Building, and Tenant agrees to look solely to such interest for the satisfaction of any liability of Landlord under this Lease, it being specifically agreed that neither Landlord, nor any successor holder of Landlord's interest hereunder, nor any beneficiary of any Trust of which any person from time to time holding Landlord's interest is Trustee, nor any such Trustee, nor any member, manager, partner, director or stockholder nor Landlord's managing agent shall ever be personally liable for any such liability. This paragraph shall not limit any right that Tenant might otherwise have to obtain injunctive relief against Landlord or Landlord's successors-in-interest, or to take any other action which shall not involve the personal liability of Landlord, or of any successor holder of Landlord's interest hereunder, or of any beneficiary of any trust of which any person from time to time holding Landlord's interest is Trustee, or of any such Trustee, or of any manager, member, partner, director or stockholder of Landlord or of Landlord's managing agent, to respond in monetary damages from Landlord's assets other than Landlord's interest in the Building, as aforesaid. Except as otherwise provided in this Lease, in no event shall Tenant have the right to terminate or cancel this Lease or to withhold Rent or to set-off any claim or damages against Rent as a result of any default by Landlord or breach by Landlord of its covenants or any warranties or promises hereunder. Tenant's covenants contained in this Lease are independent

and not dependent, and Tenant hereby waives the benefit of any statute or judicial law to the contrary. Without limiting the generality of the foregoing, Tenant's covenant to pay Rent is independent of every other covenant in this Lease. Further, in no event shall Landlord or Landlord's managing agent ever be liable to Tenant for any indirect or consequential damages or loss of profits or the like.

Section 20.3– Status Report.

Recognizing that both parties may find it necessary to establish to third parties, such as accountants, banks, mortgagees, or the like, the then current status of performance hereunder, either party, on the written request of the other made from time to time, will promptly furnish a written statement of the status of any matter pertaining to this Lease. Without limiting the generality of the foregoing, Tenant specifically agrees, promptly upon the commencement of the term hereof, to notify Landlord in writing of the Commencement Date, and acknowledge satisfaction of the requirements with respect to construction and other matters by Landlord, save and except for such matters as Tenant may wish to set forth specifically in said statement.

Section 20.4– Notice to Mortgagee and Ground Lessor.

After receiving notice from any person, firm or other entity that it holds a mortgage which includes the Premises as part of the mortgaged premises, or that it is the ground lessor under a lease with Landlord as ground lessee, which includes the Premises as a part of the leased premises, no notice from Tenant to Landlord shall be effective unless and until a copy of the same is given to such holder or ground lessor at the address as specified in said notice (as it may from time to time be changed), and the curing of any of Landlord's defaults by such holder or ground lessor within a reasonable time after such notice (including a reasonable time to obtain possession of the Premises if the mortgagee or ground lessor elects to do so) shall be treated as performance by Landlord. For the purposes of this Section, the term "mortgage" includes a mortgage on a leasehold interest of Landlord (but not one on Tenant's leasehold interest).

Section 20.5– Assignment of Rents.

With reference to any assignment by Landlord of Landlord's interest in this Lease, or the rents payable hereunder, conditional in nature or otherwise, which assignment is made to the holder of a mortgage or ground lease on property which includes the Premises, Tenant agrees:

(a) That the execution thereof by Landlord, and the acceptance thereof by the holder of such mortgage, or the ground lessor, shall never be treated as an assumption by such holder or ground lessor of any of the obligations of Landlord hereunder, unless such holder, or ground lessor, shall, by notice sent to Tenant, specifically otherwise elect; and

(b) That, except as aforesaid, such holder or ground lessor shall be treated as having assumed Landlord's obligations hereunder only upon foreclosure of such holder's mortgage and the taking of possession of the Premises, or, in the case of a ground lessor, the assumption of Landlord's position hereunder by such ground lessor. In no event shall the acquisition of title to the Property by a purchaser which, simultaneously therewith, leases the entire Property back to the seller thereof be treated as an assumption, by operation of law or otherwise, of Landlord's obligations hereunder, but Tenant shall look solely to such seller-lessee, and its successors from

time to time in title, for performance of Landlord's obligations hereunder. In any such event, this Lease shall be subject and subordinate to the lease to such purchaser provided that such purchaser-lessor agrees to recognize the right of Tenant to use and occupy the Premises upon the payment of Rent and all other charges payable by Tenant under this Lease and the performance by Tenant of Tenant's obligations under this Lease prior to the expiration of any applicable notice and/or cure periods. For all purposes, such seller-lessee, and its successors in title, shall be the landlord hereunder unless and until Landlord's position shall have been assumed by such purchaser-lessor. Tenant acknowledges that it has been informed by Landlord that Landlord has entered into certain agreements with its lenders ("Lenders") which require it to include in this Lease (and requires Tenant to include in any sublease which may be permitted hereunder) the following provisions: (i) no Rent payable under this Lease or under any such sublease may be based in whole or in part on the income or profits derived from the Premises or any subleased premises; (ii) if Lenders succeed to Landlord's interests under this Lease and are advised by Lenders' counsel that all or any portion of the Rent payable under this Lease is or may be deemed to be unrelated business income within the meaning of the Internal Revenue Code of the 1986, as amended, or the regulations issued thereunder, Lenders may elect to amend unilaterally the calculation of rents under this Lease so that none of the rents payable to Lenders under this Lease will constitute unrelated business income, provided that such amendment will not increase Tenant's payment obligations or other liability under this Lease or reduce Landlord's obligations under this Lease; and (iii) if Lenders request, Tenant will be obligated to execute any document Lenders may deem necessary to effect the amendment of this Lease in accordance with the foregoing subsection (ii). Further, no Rent may be paid by Tenant more than thirty (30) days in advance except with Lenders' prior written consent, and any such payment without such consent shall not be binding on Lenders.

Section 20.6– Mechanics' Liens.

Tenant agrees within ten (10) days after notice of the filing thereof to discharge of record (either by payment or by filing of the necessary bond, or otherwise) any mechanics', materialmen's, or other lien or like filing including, without limitation, any notice of contract against the Premises or Project and/or Landlord's interest therein, which liens may arise out of any payment due for, or purported to be due for, any labor, services, materials, supplies, or equipment alleged to have been furnished to or for Tenant in, upon or about the Premises or Project and to indemnify, defend with counsel reasonably acceptable to Landlord and save harmless Landlord from any claims or actions relating to compensation or payment for Tenant Work (as hereinafter defined).

The parties herby acknowledge that, in performing any Alterations, additions or other work (collectively "Tenant Work"), Tenant is acting for its own benefit and account, and the parties expressly agree that Tenant will not be acting as Landlord's agent in performing any Tenant Work. The fact that Tenant is required to obtain Landlord's consent prior to commencing any Tenant Work is solely for the benefit of Landlord in determining whether such Tenant Work will adversely affect the building in which the Premises is located and the granting of Landlord's consent to any Tenant Work shall not be construed to give rights to any other parties. Tenant shall require any contractor who performs Tenant Work to expressly acknowledge and agree to the provisions of this paragraph.

Section 20.7– No Brokerage.

Tenant warrants and represents that it has dealt with no broker or other agent other than Cresa Boston in connection with the consummation of this Lease, and in the event of any brokerage claims against Landlord predicated upon prior dealings with Tenant named herein, Tenant agrees to defend the same and indemnify Landlord against any such claim. Landlord warrants and represents that it has dealt with no broker or other agent other than Newmark Knight Frank in connection with the consummation of this Lease, and in the event of any brokerage claims against Tenant predicated upon prior dealings with Landlord named herein, Landlord agrees to defend the same and indemnify Tenant against any such claim. Landlord shall be responsible for any commissions or fees owed to the foregoing brokers in connection with this transaction in accordance with a separate agreement between such brokers and Landlord.

Section 20.8– Definition of Rent and Additional Rent.

Without limiting any other provision of this Lease, it is expressly understood and agreed that Tenant's participation in Taxes, Operating Costs, utility charges and all other charges which Tenant is required to pay hereunder, including, without limitation, if applicable, any fees and expenses under Section 20.9 hereof, together with all interest and penalties that may accrue thereon, shall be deemed to be "Additional Rent", and in the event of non-payment thereof by Tenant, Landlord shall have all of the rights and remedies with respect thereto as would accrue to Landlord for non-payment of Annual Fixed Rent. Where the term "Rent" is used herein the same shall mean all Annual Fixed Rent and other charges hereunder, including, without limitation, all Additional Rent. Subject to Section 9.3 hereof, Tenant covenants and agrees to pay, without offset except as otherwise provided in this Lease, said Additional Rent in accordance with the provisions of this Lease. Tenant's failure to object to any statement, invoice or billing rendered by Landlord within a period of one hundred twenty (120) days after Tenant's receipt thereof shall constitute Tenant's acquiescence with respect thereto and shall render such statement, invoice or billing an account between Landlord and Tenant.

Section 20.9– Landlord's Fees and Expenses.

Unless prohibited by applicable law, Tenant agrees to pay to Landlord the amount of all reasonable out of pocket legal fees and expenses incurred by Landlord arising out of or resulting from any Event of Default or from any bankruptcy case involving Tenant, including without limitation, the filing by or against Tenant of any petition for relief under any applicable bankruptcy law (any bankruptcy matter referred to herein being subject to the provisions of Article XVIII hereof).

Further, if Tenant shall request Landlord's consent or joinder in any instrument pertaining to this Lease, Tenant agrees promptly to reimburse Landlord for the reasonable out of pocket legal fees incurred by Landlord in processing such request, as is specified in this Lease, whether or not Landlord complies therewith; and if Tenant shall fail promptly so to reimburse Landlord, same shall be deemed to be a default in Tenant's monetary obligations under this Lease.

Section 20.10– Invalidity of Particular Provisions.

If any term or provision of this Lease, including but not limited to any waiver of contribution or claims, indemnity, obligation, or limitation of liability or of damages, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Lease shall be valid and be enforced to the fullest extent permitted by law.

Section 20.11– Provisions Binding, Etc.

Except as herein otherwise expressly provided, the terms hereof shall be binding upon and shall inure to the benefit of the successors and assigns, respectively, of Landlord and Tenant. Each term and each provision of this Lease to be performed by Tenant shall be construed to be both a covenant and a condition. The reference contained to successors and assigns of Tenant is not intended to constitute a consent to assignment by Tenant, but has reference only to those instances in which Landlord may later give written consent to a particular assignment as required by the provisions of Article VIII hereof. Wherever reference in this Lease is made to the managing agent, the same shall mean the managing agent that has been authorized by Landlord to act on its behalf in the management of the Property. Nothing herein shall impose any liability on the managing agent.

This Agreement may be executed in one or more counterparts including by PDF or other electronic manner, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. The parties acknowledge and agree that, notwithstanding any law or presumption to the contrary, an electronic or telefaxed signature of either party, whether upon this Lease or any related document, shall be deemed valid and binding and admissible by either party against the other as if same were an original ink signature.

Section 20.12– Intentionally Omitted.

Section 20.13– Governing Law.

This Lease shall be governed exclusively by the provisions hereof and by the laws of the Commonwealth of Massachusetts as the same may from time to time exist.

Section 20.14– Recording; Confidentiality.

Tenant agrees not to record the within lease. Simultaneously with the execution of this Lease each party hereto agrees to execute a Notice of Lease in the form attached hereto as Exhibit H. In no event shall such document set forth the rental or other charges payable by Tenant under this Lease; and any such document shall expressly state that it is executed pursuant to the provisions contained in this Lease, and is not intended to vary the terms and conditions of this Lease. Further, each party hereto agrees upon the expiration or earlier termination of this Lease, on request of the other, to execute a Termination of Notice of Lease in recordable form and complying with applicable law and reasonably satisfactory to Landlord’s and Tenant’s attorney.

Landlord and Tenant each agrees that this Lease, the terms contained herein and any information provided about the other party will be treated as strictly confidential and except as required by law, including any applicable reporting obligations under Legal Requirements, (or except with the written consent of the other party) such party shall not disclose the same to any third party except for such party's partners, existing and prospective investors, existing and prospective lenders, and existing and prospective purchasers, brokers, accountants and attorneys who have been advised of the confidentiality provisions contained herein and agree to be bound by the same.

Section 20.15– Notices.

Whenever, by the terms of this Lease, notice, demand, or other communication shall or may be given either to Landlord or to Tenant, such notices shall be in writing and shall be sent by hand, registered or certified mail, or overnight or other commercial courier, postage or delivery charges, as the case may be, prepaid as follows:

If intended for Landlord, addressed to Landlord at the address set forth on the first page of this Lease, and a copy in like fashion to the following (or to such other address or addresses as may from time to time hereafter be designated by Landlord by like notice):

[**]
Vice President, Hilco Redevelopment, LLC
99 Summer Street, Suite 1110
Boston, Massachusetts 02110
[**]

With a copy to:

[**]
General, Counsel, Hilco Redevelopment, LLC
111 S. Wacker Drive, Suite 3000
Chicago, Illinois 60606
[**]

With a copy to:

Nutter, McClennen & Fish, LLP
155 Seaport Boulevard
Boston, Massachusetts 02210
Attn: [**]

If intended for Tenant, addressed to Tenant at the address set forth on the first page of this Lease and a copy in like fashion to Tenant(or to such other address or addresses as may from time to time hereafter be designated by Tenant by like notice), with a copy to:

[**]

Two International Place, 16th Floor
Boston, MA, 02110
Attn; [**]
email: [**]

Except as otherwise provided herein, all such notices shall be effective when received; provided, that (i) if receipt is refused, notice shall be effective upon the first occasion that such receipt is refused, (ii) if the notice is unable to be delivered due to a change of address of which no notice was given, notice shall be effective upon the date such delivery was attempted or (iii) if the notice address is a post office box number, notice shall be effective the day after such notice is sent as provided hereinabove.

Where provision is made for the attention of an individual or department, the notice shall be effective only if the wrapper in which such notice is sent is addressed to the attention of such individual or department.

Any notice given by an attorney on behalf of Landlord or by Landlord's managing agent shall be considered as given by Landlord and shall be fully effective. Any notice given by an attorney on behalf of Tenant be considered as given by Tenant and shall be fully effective.

Time is of the essence with respect to any and all notices and time periods for giving of notice or taking any action thereto under this Lease.

Section 20.16– When Lease Becomes Binding.

The submission of this document for examination and negotiation does not constitute an offer to lease, or a reservation of, or option for, the premises, and this document shall become effective and binding only upon the execution and delivery hereof by both Landlord and Tenant.

All negotiations, considerations, representations, and understandings between Landlord and Tenant are incorporated herein and may be modified or altered only by agreement in writing between Landlord and Tenant, and no act or omission of any employee or agent of Landlord shall alter, change, or modify any of the provisions hereof. Tenant specifically confirms and acknowledges that: (i) before entering into this Lease, Tenant has made its own observations, studies, determinations and projections with respect to Tenant's lease of the Premises and all other factors relevant to Tenant's decision to enter into this Lease; and (ii) neither Tenant nor any representative of Tenant has relied upon any representation by (or any "conversation" with) Landlord or any representative of Landlord with respect to the foregoing not contained in this Lease.

Each of Landlord and Tenant hereby represents and warrants to the other that all necessary action has been taken to enter into this Lease and that the person signing this Lease on its behalf has been duly authorized to do so.

Section 20.17– Paragraph Headings.

The paragraph headings throughout this instrument are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Lease.

Section 20.18– Lease Superior or Subordinate to Mortgage.

This Lease shall be subject and subordinate to any mortgage now or hereafter on the Building, or any part thereof, and to all renewals, modifications, consolidations, replacements and extensions thereof and all substitutions therefor. It is further agreed that any mortgagee may elect to give the rights and interest of the Tenant under this lease priority over the lien of its mortgage. In the event of either such election, and upon notification by such mortgagee to the Tenant to that effect, the rights and interest of the Tenant under this lease shall be deemed to be subordinate to, or to have priority over, as the case may be, the lien of said mortgage, whether this lease is dated prior to or subsequent to the date of said mortgage. Landlord agrees to obtain, at its sole cost and expenses, from its current mortgagee of the Property for the benefit of Tenant, a subordination, non-disturbance and attornment agreement ("SNDA") in the form attached hereto as Exhibit D, within thirty (30) days after the Effective Date. As may requested by Tenant, from time to time as provided herein, Landlord also agrees to obtain from any future mortgagee of the Property for the benefit of Tenant, an SNDA in such mortgagee's standard form with such reasonable modifications as reasonably acceptable to such mortgagee and Tenant. Landlord shall pay any costs which any such mortgagee shall impose for any SNDA.

Section 20.19– Holding-Over.

Any holding-over by Tenant after the expiration of the term of this Lease shall be treated as a tenancy at sufferance only. Any such occupancy after such expiration or termination shall be subject to all the terms and provisions of this Lease, except that (a) Tenant shall pay Annual Fixed Rent applicable immediately prior to such expiration or termination of this Lease at the Holdover Percentage (as hereinafter defined), and (b) Tenant shall continue to pay Landlord all Additional Rent, and (c) in the event such hold-over continues for more than sixty (60) days after the end of the Term, Tenant shall be liable for all damages, including, without limitation, lost business and consequential damages, incurred by Landlord as a consequence of such holding-over. Nothing contained herein shall grant Tenant the right to holdover after the expiration or earlier termination of the Term. The "Holdover Percentage" shall be (i) for the first forty-five (45) days of holdover, 125% of the Annual Fixed Rent applicable immediately prior to such expiration or termination of this Lease, and (ii) thereafter, 150% of the Annual Fixed Rent applicable immediately prior to such expiration or termination of this Lease.

Section 20.20– Interest.

All payments becoming due under this Lease from Tenant to Landlord or from Landlord to Tenant and not paid within five (5) business days after due and payable under this Lease shall bear interest from the applicable due date until received at the lesser rate (the "Default Rate") of: (i) three percent (3%) per annum above the prime rate published from time to time in the Wall Street Journal (or if such newspaper ceases to publish the same, the prime rate so-called

announced from time to time by Bank of America (or its successor) (the "Prime Rate"); or (ii) the highest lawful rate of interest permitted at the time in the State.

Section 20.21– Tenant Financials.

If Tenant ceases to be a company whose capital stock is traded on a recognized public exchange, within ten (10) days after Landlord's demand therefor in connection with a sale or financing of the Building, which may be made no more often than once per year, or an Event of Default, Tenant shall furnish to Landlord, then current financial statements of Tenant, audited, if audited statements have been recently prepared on behalf of Tenant, or otherwise certified as being true and correct by the chief financial officer of Tenant, or by Tenant if the same is an individual.

Section 20.22– Force Majeure.

Neither Landlord nor Tenant shall be liable for failure to perform any obligation under this Lease, except for the payment of money, in the event it is prevented from so performing by strike, lockout, breakdown, pandemic, epidemic or other public health emergency, accident, order or regulation of or by any governmental authority (including, without limitation, any regulatory restrictions on work) or failure to supply or inability by the exercise of reasonable diligence to obtain supplies, parts or employees necessary to furnish such services or because of war or other emergency or for any other similar or dissimilar cause beyond its reasonable control, but financial inability shall never be deemed to be a cause beyond a party's reasonable control, and in no event shall either party be excused or delayed in the payment of any money due under this Lease by reason of any of the foregoing. In order to make a valid force majeure delay claim, a party must give the other party written notice of the same within ten (10) days after the occurrence of such force majeure event.

Section 20.23– Expansion of Project.

Landlord may expand the Property and/or the Project beyond its respective present boundaries, provided that such expansion does not result in a material adverse effect on Tenant's Permitted Use of the Premises or Tenant's Exclusive Use Areas and operation of Tenant's business therein. If Landlord shall proceed as aforesaid (which Landlord shall be permitted to do) then Landlord may from time to time elect either to include or exclude the taxes and assessments on the land and buildings of said expansion area as well as all reasonable common area maintenance charges with respect to said expansion area from the Taxes and Operating Costs due hereunder and allocate any such amounts to all or any portion of the Project as Landlord shall reasonably determine.

Section 20.24– Hazardous Materials

(a) "Hazardous Materials" shall mean any material, substance, chemical or waste that is or has the characteristic of being hazardous, toxic, ignitable, reactive or corrosive, including, without limitation, petroleum, PCBs, asbestos, materials commonly known to cause cancer or reproductive problems and those materials, substances and/or wastes, including wastes which are or later become regulated by any local governmental authority, the state in which the Property is located or the United States Government, including, but not limited to, substances defined as

"hazardous substances," "hazardous materials," "toxic substances" or "hazardous wastes" in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. 9601, et seq.; the Hazardous Materials Transportation Act, 49 U.S.C. 1801, et seq.; the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq.; the Toxic Substances Control Act, 15 U.S.C. 2601 et seq.; the Occupational Health and Safety Act, 29 U.S.C. 651, et seq.; Chapter 21E of the General Laws of the Commonwealth of Massachusetts and 780 CMR 307; any applicable laboratory BSL criteria (including specific BSL limitations, standards, practices, safety equipment and facility requirements for the applicable BSL pursuant to written guidelines, directives, rules, and/or regulations issued by the U.S. Centers for Disease Control), all environmental laws of the state where the Property is located, and any other federal, state, and/or local environmental law, regulation or ordinance now existing or hereinafter enacted (collectively, "Hazardous Materials Laws").

(b) Tenant hereby agrees that Tenant and Tenant's officers, employees, representatives, agents, contractors, subcontractors, successors, assigns, subtenants, concessionaires, and any other occupants of the Premises (for purposes of this Section 20.24, referred to collectively herein as "Tenant Representatives") shall not use, generate, manufacture, refine, produce, process, store, or dispose of, on, under or about the Premises or the Property or transport to or from the Premises or the Property any Hazardous Materials, except that Tenant and Tenant Representatives shall be permitted to use normal quantities of such substances as is necessary in the ordinary course of Tenant's business so long as (i) any such Hazardous Materials must be in amounts and handled by Tenant in compliance with all Legal Requirements, including without limitation, Hazardous Materials Laws and (ii) Tenant's activities are not categorized as exceeding any BSL other than BSL1 or BSL2.

The list attached hereto as Exhibit F is a complete list of all Hazardous Materials and estimated quantities intended as of the date hereof to be used and stored by Tenant in the Premises as of the Commencement Date, which list of Hazardous Materials and quantities is hereby approved by Landlord. Subject to the following provisions of this subsection (b), Tenant may make reasonable adjustments to the types of Hazardous Materials and quantities used or stored in the Premises, as required by Tenant's business operations, so long as: (i) such types and quantities of Hazardous Materials are not Prohibited Hazardous Materials (as defined below) and are materially consistent with the types and quantities of the Hazardous Materials and quantities set forth on Exhibit F and are necessary to Tenant's business and are otherwise stored, used and disposed of in strict compliance with all applicable Hazardous Materials Laws and with good scientific and laboratory practices; (ii) Tenant has obtained and maintains all licenses, permits, registrations and consents required by applicable law (including, without limitation, Hazardous Materials Laws) to use or store all such types and quantities of Hazardous Materials in the Premises; and (iii) Tenant shall provide Landlord with copies of all such licenses, permits, registrations and consents required by applicable law for all Hazardous Materials used, handled, stored or

brought onto the Premises by Tenant, as well as copies of all applications and other governmental filings and reports with respect thereto concurrently with Tenant's submittal of the same to the applicable governmental authorities. Tenant shall provide Landlord with an updated list of Hazardous Materials and quantities then used by Tenant upon Landlord's request from time to time. Tenant shall at its own expense procure, maintain in effect and comply with all conditions of any and all permits, licenses, and other governmental and regulatory approvals required for the storage or use by Tenant or any of Tenant's Representatives of Hazardous Materials on the Premises or the Property, including without limitation, discharge of (appropriately treated) materials or wastes into or through any sanitary sewer serving the Premises or the Property. Furthermore and notwithstanding any provision in this Lease, under no circumstances shall Tenant use or permit to exist in the Premises, or obtain any license, permit, registration or consent from any local, federal or state governmental agency, authority, commission, board or the like permitting Tenant to use or store in the Premises, any product or material at the Premises that includes or contains polychlorinated biphenyls or any of the Hazardous Materials or classes thereof listed and/or identified on Exhibit G attached hereto (collectively, the "Prohibited Hazardous Materials").

Notwithstanding anything to the contrary contained in this Lease, during the Term, Tenant shall be entitled to the allocation of Tenant's Proportionate Share of the maximum allowable chemical quantities (both in use and in storage) permitted by MAQ Codes (defined below) for the first (1st) floor of the Building, subject to Tenant maintaining all licenses, permits and approvals required therefor. As used herein, "MAQ Codes" shall mean 780 CMR – Massachusetts State Building Code 9th Edition, 527 CMR – Massachusetts Comprehensive Fire Safety Code, and NEPA 45 – Standard on Fire Protection for Laboratories Using Chemicals, 2011 Edition.

(c) Contamination.

(i) If at any time during the Term it is determined that any contamination of the Premises and/or the Project in violation of applicable Hazardous Materials Laws has occurred as a result of Tenant's or Tenant's Representative's action or inaction (where action is required by Tenant or such Tenant Representative) and/or that any Hazardous Materials have been released on or about the Premises by Tenant or any Tenant Representatives (collectively, "Contamination"), then Tenant, at Tenant's sole cost and expense, shall promptly and diligently remove such Hazardous Materials from the Property and/or the land and groundwater underlying or adjacent to the Property to the extent required to comply with applicable Hazardous Materials Laws. Tenant shall not take any required remedial action in response to any Contamination in or about the Property or any adjacent property, or enter into any settlement agreement, consent, decree, or other compromise in respect to any claims relating to any Contamination, without first procuring Landlord's consent and

notifying Landlord of Tenant's intention to do so, and affording Landlord the opportunity to appear, intervene, or otherwise appropriately assert and protect Landlord's interest with respect thereto at Tenant's expense. In the event of a Contamination, Landlord and Tenant shall jointly prepare a remediation plan in compliance with all Hazardous Materials Laws. In addition to all other rights and remedies of the Landlord hereunder, in the event of a Contamination, if Tenant does not promptly and diligently take all steps to prepare and obtain all necessary approvals of a remediation plan for any Contamination, and thereafter commence the required remediation of any Hazardous Materials released or discharged in connection with Contamination within thirty (30) days after all necessary approvals and consents have been obtained and thereafter continue to prosecute such remediation to completion in accordance with the approved remediation plan and all Legal Requirements including, without limitation, Hazardous Materials Laws, then Landlord, at its sole discretion, shall have the right, but not the obligation, to cause such remediation to be accomplished, and Tenant shall reimburse Landlord, as Additional Rent, within thirty (30) days of Landlord's demand for reimbursement of all amounts actually, reasonably paid by Landlord, when such demand is accompanied by proof of payment by Landlord of the amounts demanded plus interest. Tenant shall promptly deliver to Landlord, copies of hazardous waste manifests reflecting the legal and proper disposal of all Hazardous Materials removed from the Property as part of Tenant's remediation of any Contamination. If there are any actionable levels of Hazardous Material on, in, or under the Premises as of the Effective Date and the same were not brought to the Premises by Tenant or anyone claiming by, through or under Tenant, then Landlord shall, at its sole cost and expense, perform all remediation of such pre-existing Hazardous Materials required by applicable Hazardous Materials Laws, and shall indemnify, defend and hold Tenant harmless from any and all remediation costs incurred by Tenant with respect thereto.

(ii) In the event of a Contamination, Tenant shall cause any and all Hazardous Materials removed from the Property as part of the required remediation of Contamination to be removed and transported solely by duly licensed haulers to duly licensed facilities for final disposal of such materials and wastes in compliance with all applicable Hazardous Materials Laws.

(d) Notification Obligations. Tenant shall immediately notify Landlord orally and in writing of: (i) any enforcement, clean up, removal, or other governmental or regulatory action instituted, contemplated, or threatened concerning the Property pursuant to any Hazardous Materials Laws; (ii) any claim made or threatened by any governmental agency, authority or other third person against Tenant or the Property relating to damage contribution, cost recovery, compensation, loss, or injury resulting from or claimed to result from any Hazardous Materials on or about the Property; and (iii) any reports made to any environmental agency arising out of or in connection with any Hazardous Materials in or removed from

the Property pertaining to items (i) or (ii), including any complaints, notices, warnings, or asserted violations in connection therewith, all upon receipt by Tenant of actual knowledge of any of the foregoing matters. Tenant shall also supply to Landlord as promptly as possible, and in any event within five (5) business days after Tenant first receives or sends the same, with copies of all claims, reports, complaints, notices, warnings, or asserted violations relating in any way to the Property or Tenant's use thereof.

(e) Indemnification.

(i) Tenant shall indemnify, defend (by counsel reasonably acceptable to Landlord with Landlord agreeing that counsel selected by Tenant's insurer is hereby approved), protect, and hold Landlord, and each of the Landlord Parties, free and harmless from and against any and all claims, actions, causes of action, liabilities, obligations, damages, penalties, forfeitures, losses, costs or expenses (including, without limitation, reasonable attorneys' fees and costs), or death of or injury to any person or damage to any property whatsoever, to the extent arising from or caused by: (i) any Contamination caused by Tenant; (ii) Tenant's violation of any Hazardous Materials Laws; and/or (iii) Tenant's breach of any of its obligations set forth in this Section 20.24. Tenant's obligations hereunder shall include without limitation, and whether foreseeable or unforeseeable, all costs of any required or necessary repair, clean up or detoxification or decontamination of the Project or any adjacent property or groundwater, and the preparation and implementation of any closure, remedial action, or other required plans in connection therewith resulting from any Contamination. For purposes of the indemnity provisions hereof, any acts or omissions of Tenant, or by employees, agents, assignees, contractors, licensee, or subcontractors of Tenant or others acting for or on behalf of Tenant (whether or not they are negligent, intentional, willful or unlawful), shall be attributable to Tenant.

(ii) The obligations and liabilities undertaken, and indemnifications given, by Tenant under this Article shall be the exclusive provisions under this Lease, applicable to the subject matter treated in this Article, and any other conflicting or inconsistent provisions contained in this Lease shall not apply with respect to the subject matter.

(f) End of Lease Obligations.

(i) Prior to the expiration of this Lease, Tenant shall:

(1) provide to Landlord a copy of the most current waste removal manifest for Hazardous Materials;

(2) clean and otherwise decommission all interior surfaces (including floors, walls, ceilings, and counters), piping,

supply lines, waste lines, holding tanks, ph/acid neutralization systems, and plumbing systems in and/or serving the Premises, and all exhaust or other ductwork in and/or serving such the Premises (collectively, the "Premises Systems"), in each case which has carried or released or been exposed to any Hazardous Material, and shall otherwise clean the Premises (to the point of ceiling penetration) and the Premises Systems so as to permit the report hereinafter called for by subsection (3) below to be issued; and

(3) obtain for Landlord, at Tenant's expense, a report addressed to Landlord and Landlord's designees by a reputable licensed environmental engineer or certified industrial hygienist acceptable to Landlord in Landlord's reasonable discretion, which report shall be based on the environmental engineer's or industrial hygienist's inspection of the Premises and the Premises Systems, which concludes that all Hazardous Materials, to the extent, if any, existing prior to such decommissioning (except pre-existing Hazardous Materials that may be present in building materials), have been removed as necessary so that the interior surfaces of the Premises (including but not limited to floors, walls, ceilings, and counters), and the Premises Systems, may be reused by a subsequent tenant or disposed of in compliance with applicable Hazardous Materials Laws without taking any special precautions for Hazardous Materials, without incurring special costs or undertaking special procedures for demolition, disposal, investigation, assessment, cleaning or removal of Hazardous Materials, and without incurring regulatory compliance requirements or giving notice pursuant to Hazardous Material Laws; and that the Premises may be reoccupied for office, research or laboratory use, demolished or renovated without taking any special precautions for Hazardous Materials, without incurring special costs or undertaking special procedures for disposal, investigation, assessment, cleaning or removal of Hazardous Materials, and without incurring regulatory requirements or giving notice pursuant to Hazardous Materials Laws. For purposes of this clause (iii), "special costs" or "special procedures" shall mean costs or procedures, as the case may be, that would not be incurred but for the nature of the Hazardous Materials as Hazardous Materials instead of non-hazardous materials. The report shall include reasonable detail concerning the clean-up locations, the tests run and the analytic results. In addition, to the extent Tenant used, stored, generated or disposed of, any radioactive or radiological substances on or about the Premises, Tenant shall: (x) require such decommissioning also to be conducted in accordance with the regulations of the U.S. Nuclear Regulatory Commission and/or the Massachusetts Department of Public Health for the control of radiation, and (y) cause the Premises and the Premises Systems to be released for unrestricted use by the Radiation Control Program of the Massachusetts Department of Public Health for the control of radiation.

(ii) Notwithstanding any provision of this Lease to the contrary, Tenant shall in no event have any liability (by way of indemnification or otherwise) for removal or remediation of any actionable levels of Hazardous Materials from the Premises or the Property or for any loss or damage, to the extent that such actionable levels of Hazardous Materials (and in no event shall "Contamination" under this Section 20.24 be defined or interpreted to include) existed in, on or under the Premises or the Property, as the case may be, on the Commencement Date.

(g) Notice of Activity and Use Limitation.

(i) Tenant acknowledges and agrees that in using or occupying the Premises for the purpose anticipated under the Lease, Tenant shall not violate the terms and provisions of the Notice of Activity and Use Limitation recorded with respect to the Property on April 30, 1997 in the Middlesex County Registry of Deeds or Notice of Activity and Use Limitation recorded with respect to the Property on January 9, 2012 in Book 58247, Page 561 at the Middlesex County Registry of Deeds (collectively, the "AUL") or any Notice of Activity and Use Limitation filed after the Effective Date (the "Future AUL"), provided such Future AUL is required to achieve a Permanent Solution for the Property and does not adversely impact Tenant's use of the Premises or the Building. To the extent that the Tenant Improvements or any Alterations approved by Landlord require regulatory filings, submittals or actions to comply with the AUL or any Future AUL and notwithstanding the provisions of Section 12.3, above, when such work would not have required any such regulatory filings, submittals or actions in the absence of the AUL or any Future AUL, Landlord shall, upon reasonable notice and at Landlord's sole expense, promptly make or perform such required regulatory filings, submittals or actions.

(ii) In its ownership, operation and management of the Building and the Property, Landlord shall not violate the terms and provisions of the AUL or the Future AUL. Landlord has further disclosed to Tenant, and Tenant herein acknowledges, that Landlord and/or a third party has and will continue after the Commencement Date, to conduct certain environmental remediation of the Property at the sole cost and expense of Landlord (and not included in Operating Costs) or such third party, including but not limited to, soils and groundwater underlying the Premises, in accordance with Legal Requirements and specifically the Massachusetts Contingency Plan, relating to Release Tracking Number 3-449, and said environmental remediation shall, to the extent required by applicable Legal Requirements, or otherwise believed to be commercially reasonable by Landlord, include a subslab depressurization ("SSD") system (the "SSD System") and potential operation of a soil vapor extraction ("SVE") system (if and to the extent required), and a periodic monitoring program as required by applicable Legal Requirements, all necessary to achieve a

Permanent Solution for the Property (herein the "Existing Environmental Work"). Tenant shall not interfere with the Existing Environmental Work.

(iii) If in connection with Tenant's performance of the Tenant Improvements or any Alterations approved by Landlord, Tenant is required to incur additional costs in order to comply with the AUL, or any Future AUL, Tenant shall so notify Landlord ten (10) days prior to incurring such additional costs, and, notwithstanding the provisions of Section 12.3, above, Landlord shall pay for such additional costs to the extent such costs would not have been incurred in the absence of the AUL or any Future AUL. By way of example, if the Tenant Improvements involve subsurface work, the costs of any soil removal, management and off-site disposal that would be incurred whether or not any AUL or Future AUL existed would be Tenant's obligation to pay as part of the Construction Costs (subject to Landlord's Contribution), but to the extent that Tenant must incur additional expense to comply with additional obligations relating to soil management and disposal due to the pre-existing conditions addressed in the AUL or any Future AUL (such as any requirements to create a new Health and Safety Plan or a new Soil Management Plan), Landlord shall pay for such additional costs that would not have been incurred in the absence of the AUL or any Future AUL.

(h) MWRA. When required by applicable Legal Requirements, Tenant shall apply for, obtain, strictly comply with, and keep in force a Sewer Use Discharge Permit from the Massachusetts Water Resources Authority (the "MWRA Permit") covering the Hazardous Materials and processes used by Tenant in its business operations at the Premises. Tenant shall provide a copy of each such MWRA Permit to Landlord, together with a written description and detailed guidelines of any laboratory operating conditions required pursuant to the MWRA Permit, within ten (10) business days after the issuance of such MWRA Permit or any amendment to modification thereto.

(i) Audit Rights.

(i) Tenant shall conduct on an annual basis, using a qualified independent environmental auditor or Licensed Site Professional ("LSP") approved by Landlord (which approval shall not be unreasonably withheld, delayed or conditioned), an environmental compliance audit ("Environmental Compliance Audit") of the Premises and the operations, equipment, facilities and fixtures therein, in order to assess their environmental compliance and pollution practices with respect to Hazardous Materials. The first such Environmental Compliance Audit shall be conducted and completed not later than the first (1st) anniversary of the Commencement Date, and subsequent audits shall be conducted and completed every two (2) years thereafter by the anniversary of such date; provided, however, that following receipt of a written request by Tenant accompanied by a certification made by Tenant that no material change has occurred in the

Hazardous Materials used in the Premises or in the operations, equipment, facilities and fixtures therein since the date of the most recent prior Environmental Audit Report (as hereinafter defined) submitted to Landlord, Landlord shall have the right, in its reasonable discretion, to waive the requirement for such an Environmental Compliance Audit and submission of an Environmental Audit Report at any such two (2) year anniversary. Subject to the proviso set forth in the immediately preceding sentence, Tenant shall submit to Landlord a written report of such audit ("Environmental Audit Report") prepared by such independent environmental auditor or LSP within ten (10) business days following the completion of such Environmental Compliance Audit. If any such Audit Report reveals material non-compliance by Tenant with any Hazardous Materials Laws on the Premises, then Tenant shall deliver to Landlord for its approval a corrective action plan ("Corrective Action Plan") within thirty (30) days of the submission of the Environmental Audit Report, containing an explanation of the non-compliance, the proposed corrective action and a schedule for the implementation of the proposed corrective action. If Landlord in good faith reasonably disagrees with any portion of the Corrective Action Plan, Tenant and Landlord agree to attempt to resolve the disagreement through informal good faith negotiations. If the parties are unable to reach an agreement through informal negotiations, either party may request the selection of a neutral panel including a neutral LSP, to resolve the dispute. Tenant and Landlord shall jointly select, retain, and share the cost of, a neutral panel agreed to by both parties. This neutral panel shall receive submissions from both Landlord and Tenant and shall render a written decision which shall be final and binding on both parties. Within thirty (30) days after Landlord approves the Corrective Action Plan, Tenant shall commence and expeditiously proceed to complete, at its sole cost and expense, the remediation plan set forth therein. Notwithstanding the foregoing, if any governmental authority with jurisdiction over the Premises establishes a remediation plan or schedule for the above-referenced non-compliance, such governmental authority's plan or schedule shall control. If Tenant does not complete the required actions in the time periods set forth above, Landlord shall have the right, but not the obligation, to enter upon the Premises without abatement of Rent and implement any remediation actions which it deems required by law to address such non-compliance. If Landlord implements any action pursuant to the foregoing sentence, Tenant shall pay Landlord's entire cost of performing such work (including an amount for fully allocated administrative charges), including, without limitation of other claims or damages that Landlord may have against Tenant arising out of the terms of this Lease or otherwise.

(ii) Notwithstanding anything contained in this subsection (i), Landlord shall have the right to conduct an Environmental Compliance Audit of the Premises and Tenant's operations, equipment, facilities and fixtures thereon. Landlord's audit shall have the same effect as an audit by Tenant,

and at the discretion of Landlord may be substituted for Tenant's annual audit.

(iii) If Landlord believes in good faith that a violation relating to Hazardous Materials and Tenant's activities, Landlord and its officers, employees, contractors or agents shall have the right, but not the duty or obligation, to enter upon the Premises from time to time for the purposes of inspections, investigations, testing, borings, remediation and all other actions required in order to comply with applicable Hazardous Materials Laws and the terms and conditions of this Section 20.24. Tenant shall be required to pay the cost of such inspections, investigations, borings and other actions if there is a violation of this Lease or if contamination for which Tenant is liable under this Lease is identified. Landlord shall not be liable to Tenant in any manner for any expense, loss or damage occurring by reason of the aforesaid entries (unless due to Landlord's gross negligence or willful misconduct), nor shall the exercise of any such right be deemed an eviction or disturbance of Tenant's use or possession.

(j) Survival. Landlord's and Tenant's obligations under this Section 20.24 shall survive the expiration or early termination of this Lease.

Section 20.25– REIT/UBTI.

Landlord and Tenant hereby agree that it is their intent that all Rent shall qualify as "rents from real property" within the meaning of Sections 512(b)(3) and 856(d) of the Internal Revenue Code of 1986, as amended, (the "Code") and the U.S. Department of the Treasury Regulations promulgated thereunder (the "Regulations"). In the event that (i) the Code or the Regulations, or interpretations thereof by the Internal Revenue Service contained in revenue rulings or other similar public pronouncements, shall be changed so that any Rent no longer so qualifies as "rent from real property" for purposes of either said Section 512(b)(3) or Section 856(d) or (ii) Landlord, in its sole discretion, determines that there is any risk that all or part of any Rent shall not qualify as "rents from real property" for the purposes of either said Sections 512(b)(3) or 856(d), such Rent shall be adjusted in such manner as Landlord may require so that it will so qualify; provided, however, that any adjustments required pursuant to this Section 20.25 shall be made so as to produce the equivalent (in economic terms) Rent as payable prior to such adjustment. The parties agree to execute such further commercially reasonable instrument as may reasonably be required by Landlord in order to give effect to the foregoing provisions of this Section 20.25.

Without limitation of the foregoing and notwithstanding anything contained in this Lease to the contrary, if a sublease, or license of all or any portion of the Premises is permitted under this Lease, the provisions of this Section 20.25 shall continue to apply, and any rent or other amounts received or accrued by Tenant from such sublease, or license shall not be based on the income or profits of any such sublessee, or licensee.

Section 20.26– Patriot Act.

As an inducement to Landlord to enter into this Lease, Tenant hereby represents and warrants that to the best of Tenant's knowledge: (i) Tenant is not, nor is it owned or controlled directly or indirectly by, any person, group, entity or nation named on any list issued by the Office of Foreign Assets Control of the United States Department of the Treasury ("OFAC") pursuant to Executive Order 13224 or any similar list or any law, order, rule or regulation or any Executive Order of the President of the United States as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person (any such person, group, entity or nation being hereinafter referred to as a "Prohibited Person"); (ii) Tenant is not (nor is it owned, controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) from and after the effective date of the above-referenced Executive Order, Tenant (and any person, group, or entity which Tenant controls, directly or indirectly) has not conducted nor will conduct business nor has engaged nor will engage in any transaction or dealing with any Prohibited Person in violation of the U.S. Patriot Act or any OFAC rule or regulation, including without limitation any assignment of this Lease or any subletting of all or any portion of the Premises or the making or receiving of any contribution of funds, goods or services to or for the benefit of a Prohibited Person in violation of the U.S. Patriot Act or any OFAC rule or regulation. At Landlord's request Tenant shall furnish to Landlord evidence confirming the representations in this Section. Notwithstanding anything to the contrary contained in this Section 20.26, so long as Tenant or its ultimate parent is a company whose capital stock is traded on a recognized public exchange, Tenant makes no representations or warranties as to the persons or entities owning an interest in Tenant.

As an inducement to Tenant to enter into this Lease, Landlord hereby represents and warrants that to the best of Landlord's knowledge: (i) Landlord is not, nor is it owned or controlled directly or indirectly by, any person, group, entity or nation named on any list issued by the Office of Foreign Assets Control of the United States Department of the Treasury ("OFAC") pursuant to Executive Order 13224 or any similar list or any law, order, rule or regulation or any Executive Order of the President of the United States as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person (any such person, group, entity or nation being hereinafter referred to as a "Prohibited Person"); (ii) Landlord is not (nor is it owned, controlled, directly or indirectly, by any person, group, entity or nation which is) acting directly or indirectly for or on behalf of any Prohibited Person; and (iii) from and after the effective date of the above-referenced Executive Order, Landlord (and any person, group, or entity which Landlord controls, directly or indirectly) has not conducted nor will conduct business nor has engaged nor will engage in any transaction or dealing with any Prohibited Person in violation of the U.S. Patriot Act or any OFAC rule or regulation, including without limitation any assignment of this Lease or any subletting of all or any portion of the Premises or the making or receiving of any contribution of funds, goods or services to or for the benefit of a Prohibited Person in violation of the U.S. Patriot Act or any OFAC rule or regulation. At Tenant's request Landlord shall furnish to Tenant evidence confirming the representations in this Section. Notwithstanding anything to the contrary contained in this Section 20.26, so long as Landlord or its ultimate parent is a company whose capital stock is traded on a recognized public exchange, Landlord makes no representations or warranties as to the persons or entities owning an interest in Landlord.

Section 20.27– Right of First Offer.

(a) Provided that the ROFO Conditions (as defined below in this Section 20.27) have then been satisfied, Tenant shall have a right, from and after the first (1st) anniversary of the Commencement Date (the "ROFO Period"), to lease that portion of the offered ROFO Space (as hereinafter defined), if any when such portion of the ROFO Space becomes "available for lease" to Tenant, subject only to (I) the rights of the existing tenants in the ROFO Space that are set forth in Exhibit I attached to this Lease and (II) the right of any such tenant to renew or extend the term of its lease and the right of Landlord and any tenant to enter into a negotiated extension of such tenant's lease (whether currently contained in such tenant's lease or otherwise). "ROFO Space" shall mean any space in the Building described on EXHIBIT I hereto which becomes available for lease during the ROFO Period, including the portions of the Building currently leased to Repligen. For the purposes of this Section 20.27, any ROFO Space shall be deemed to be "available for lease to Tenant" when Landlord determines, in its sole discretion, such area becomes available for leasing to Tenant (i.e. when the ROFO Space becomes or is scheduled to become vacant, subject to the priority interests of other parties as set forth above, if any). Notwithstanding anything to the contrary, with respect to space that is vacant as of the Effective Date the same shall not be deemed to be available for lease to Tenant until after the initial leasing thereof. Prior to offering to lease a ROFO Space to any party other than those with a priority interest in such space as set forth above during the ROFO Period, Landlord shall deliver notice thereof to Tenant (a "ROFO Notice") setting forth the date Landlord anticipates that the applicable ROFO Space will become available for leasing, Landlord's designation of the Prevailing Market Rent for the ROFO Space (the "ROFO Prevailing Market Rent"), the length of the term for such ROFO Space, and such other terms as Landlord is prepared to lease such ROFO Space to a third party. Tenant shall have the option (a "ROFO Option"), exercisable by Tenant delivering written notice to Landlord within seven (7) business days after delivery by Landlord of the applicable ROFO Notice, to either (i) lease all of the applicable ROFO Space on all of the terms set forth in the ROFO Notice (a "Acceptance Notice"), or (ii) provide Landlord with a counteroffer of Landlord's designation of ROFO Prevailing Market Rent ("Tenant's RFO Objection Notice") but otherwise lease all of the applicable ROFO Space on all of the other terms set forth in the ROFO Notice. If Tenant fails to provide either an Acceptance Notice or a Tenant's RFO Objection Notice within such seven (7) business day period, Tenant shall be deemed to have rejected such ROFO Notice and Landlord shall be free to lease such ROFO Space to any third party or any terms and conditions determined by Landlord; provided that Landlord shall re-offer such space to Tenant if either (i) Landlord proposes to lease such space for a net effective rent which is less than 90% of the net effective rent offered to Tenant in the ROFO Notice, or (ii) Landlord has not entered into a lease with respect to such ROFO Space within 12 months following the ROFO Notice with respect to such space.

(b) If Tenant timely and properly provides Tenant's Acceptance Notice, Tenant shall lease the ROFO Space at the ROFO Prevailing Market Rent and upon the other terms set forth in Landlord's ROFO Notice. If Tenant timely and properly provides Tenant's RFO Objection Notice, then Tenant shall lease the ROFO Space on all of the terms set forth in the ROFO Notice, except that the ROFO Prevailing Market Rent shall be determined as follows: The parties shall negotiate in good faith for thirty (30) days ("Negotiation Period") after Landlord's receipt of a RFO Objection Notice. If the parties cannot reach an agreement as to the designation of ROFO Prevailing Market Rent within the Negotiation Period, then ROFO Prevailing Market Rent shall

be determined by the procedures set forth in Section 3.4 of this Lease (provided that ROFO Prevailing Market Rent shall be substituted for the definition of Prevailing Market Rent in said Section 3.4). If Tenant timely and properly gives Landlord Tenant's RFO Objection Notice, then Landlord shall lease to Tenant and Tenant shall hire and take from Landlord, such ROFO Space, upon all of the terms set forth in the ROFO Notice and otherwise upon the same terms and conditions of the Lease except that the ROFO Prevailing Market Rent shall be determined as set forth above.

(c) ROFO Conditions. Tenant shall have no right to exercise any ROFO Option or to lease any ROFO Space, and Landlord shall have no obligation to deliver a ROFO Notice, unless all of the following conditions have been satisfied: (i) no Event of Default has occurred which shall not have been cured; and (ii) the initially named Tenant (or a Permitted Transferee) is in occupancy of at least 75% of the originally demised Premises as of the date of the ROFO Notice (the "ROFO Conditions").

(d) Terms. Effective as of the date on which Landlord delivers the ROFO Space to Tenant (the "ROFO Space Commencement Date"):

i. The ROFO Space shall be added to and be deemed to be a part of the Premises on the term therefor set forth in the ROFO Notice, and on all of the terms and conditions of this Lease (except as otherwise provided in this Section 20.27);

ii. The ROFO Space shall be delivered free of all tenants and occupants and otherwise in its "as is" condition as of the date of the ROFO Notice; Landlord shall not be obligated to perform any work or improvements or to provide any allowances or inducements with respect thereto (except as shall have been provided in the ROFO Notice and provided that the ROFO Prevailing Market Rent takes the same into account on a net effective basis as a relevant factor); and

iii. Annual Fixed Rent for the ROFO Space shall be as set forth in the ROFO Notice or as determined pursuant to the provisions of this Section 20.27.

(e) Amendment. The delivery of the Acceptance Notice or Tenant's RFO Objection Notice by Tenant shall constitute the irrevocable and unconditional acceptance by Tenant of the offer to lease the ROFO Space upon all of the terms and conditions set forth in the ROFO Notice or determined in accordance with this Section 20.27. Without limitation, if Tenant timely delivers an Acceptance Notice or Tenant's RFO Objection Notice and exercises the ROFO Option, upon request made by either party, Landlord and Tenant will execute, acknowledge and deliver an amendment to this Lease confirming the ROFO Space Commencement Date, Fixed Rent and Additional Rent payable with respect to the ROFO Space, the incorporation of the ROFO Space into the Premises, and the modifications to this Lease resulting therefrom, as set forth this Section 20.27.

Section 20.28—Parking.

Tenant shall have the right, subject to the terms hereof, to utilize parking spaces in the surface parking lots within the Project at a ratio of 3 spaces per 1,000 rentable square feet of the Premises (the foregoing referred to herein as "Tenant's Parking"). Tenant's Parking shall not be reduced during the Term, and in connection with any expansion of the Premises, Tenant's Parking shall be increased based on a ratio of 3 spaces per 1,000 rentable square feet in the expansion space. Tenant's spaces within Tenant's Exclusive Parking area shall not be re-located or reduced in size. Tenant's parking generally is on an unassigned non-exclusive basis, at no additional rental or other charge, all subject to existing tenant rights and the rights of other tenants of the Property for ingress and egress to the parking areas on the Property; provided however that the parking spaces within Tenant's Exclusive Parking identified on Exhibit A-4 attached hereto shall be separately identified as exclusive areas for Tenant's Parking. Tenant's Parking shall be non-transferable (directly or indirectly) to any other institutions, entities or individuals. During the Term, as the same may be extended, Tenant shall have the right, in common with all other tenants of the Building, to use the surface parking lot, without charge, on a first-come, first-served basis.

Landlord shall not be responsible for money, jewelry, automobiles or other personal property lost in or stolen from the parking lot. Landlord shall not be liable for any loss, injury or damage to persons using the parking lot or automobiles or other property thereon, it being agreed that, to the fullest extent permitted by law, the use of the parking lot and the parking spaces shall be at the sole risk of Tenant and its employees. Except for emergency repairs, Tenant and its employees shall not perform any work on any automobiles while located in the parking lot.

Tenant's Parking shall be subject to such reasonable rules and regulations therefor as may be set and changed with reasonable prior notice by the Landlord from time to time during the Term. Landlord agrees that such rules and regulations shall be established and applied by Landlord in a non-discriminatory fashion, such that all rules and regulations shall be generally applicable to all other tenants of the Building of a similar nature of Tenant. Tenant's Parking is non-assignable and intended solely for the use of Tenant's employees working from and business invitees to the Premises; and as such Tenant shall not offer them for "use" or "license" to any other entity, the general public, or any other tenants of the Building. All such appurtenant rights for parking as set forth in this Article are automatically terminated upon termination of this Lease, and shall have no separate independent validity or legal standing. Landlord reserves the right to relocate and/or temporarily close any or all of the parking facilities to the extent necessary in the event of a casualty or governmental taking or for maintenance and repairs of the parking facility provided Landlord shall reopen the same or provide replacement parking facilities as soon as practicable thereafter.

Section 20.29 -Letter of Credit.

(a) Concurrently with Tenant's execution of this Lease, Tenant shall provide Landlord with a letter of credit ("Letter of Credit") in the amount of the Security Deposit as security for the faithful performance and observance by Tenant of the terms, covenants and conditions of this Lease. The Letter of Credit shall be in the form of a clean, irrevocable, non-documentary and unconditional letter of credit (the "Letter of Credit") issued by and drawable upon a commercial

bank which is reasonably satisfactory to Landlord and Tenant (the "Issuing Bank"), which has outstanding unsecured, uninsured and unguaranteed indebtedness, or shall have issued a letter of credit or other credit facility that constitutes the primary security for any outstanding indebtedness (which is otherwise uninsured and unguaranteed), that is then rated, without regard to qualification of such rating by symbols such as "+" or "-" or numerical notation, "Aa" or better by Moody's Investors Service and "AA" or better by Standard & Poor's Rating Service, and has combined capital, surplus and undivided profits of not less than $2,000,000,000. The Letter of Credit shall (a) name Landlord as beneficiary, (b) have a term of not less than one year, (c) permit multiple drawings, (d) be fully transferable by Landlord without the payment of any fees or charges by Landlord, and (e) otherwise be in form and content reasonably satisfactory to Landlord. If upon any transfer of the Letter of Credit, any fees or charges shall be so imposed, then such fees or charges shall be payable solely by Tenant and the Letter of Credit shall so specify. The Letter of Credit shall provide that it shall be deemed automatically renewed, without amendment, for consecutive periods of one year each thereafter during the Lease Term (and in no event shall the Letter of Credit expire prior to the 60th day following the Expiration Date) unless the Issuing Bank sends duplicate notices (the "Non-Renewal Notice") to Landlord by certified mail, return receipt requested, not less than 30 days next preceding the then expiration date of the Letter of Credit stating that the Issuing Bank has elected not to renew the Letter of Credit. The Issuing Bank shall agree with all drawers, endorsers and bona fide holders that drafts drawn under and in compliance with the terms of the Letter of Credit will be duly honored upon presentation to the Issuing Bank at an office location in Boston, Massachusetts. Except as otherwise expressly stated herein, this Letter of Credit is governed by and subject to the "International Standby Practices of ISP 98 (1998 Revision), International Chamber of Commerce Publication No. 590."

(b) Application of Security. If (i) an Event of Default by Tenant occurs and is continuing in the payment of any amounts due under this Lease, including the payment of Rent, or (ii) Landlord receives a Non-Renewal Notice, or (iii) Tenant files a voluntary petition under any Federal or state bankruptcy or insolvency code, law or proceeding, then Landlord shall have the right by sight draft to draw, at its election, all or a portion of the proceeds of the Letter of Credit and thereafter hold, use, apply, or retain the whole or any part of such proceeds, as the case may be, (x) to the extent required for the payment of any Annual Fixed Rent, Additional Rent or any other sum as to which Tenant is in default including (i) any sum which Landlord may expend or may be required to expend by reason of Tenant's default beyond any applicable cure periods, and/or (ii) any damages to which Landlord is entitled pursuant to this Lease, whether such damages accrue before or after summary proceedings or other reentry by Landlord, and/or (y) as a cash security deposit, unless and until, in the case of clause (iii) above, Tenant delivers to Landlord a substitute Letter of Credit which meets the requirements of this Section. If Landlord applies or retains any part of the proceeds of the Letter of Credit, or cash security, Tenant, and within ten (10) days, shall amend the Letter of Credit to increase the amount thereof by the amount so applied or retained or provide Landlord with an additional Letter of Credit in the amount so applied or retained so that Landlord shall have the full amount thereof on hand at all times during the Lease Term. The Letter of Credit or cash security, as the case may be, or balance thereof shall be returned to Tenant after the Expiration Date and after delivery of possession of the Premises to Landlord in the manner required by this Lease and the completion of all of Tenant's obligations under this Lease.

(c) Transfer. The Letter of Credit shall also provide that Landlord, its successors and assigns, may, at any time and without notice to Tenant and without first obtaining Tenant's consent thereto, transfer (one or more times) all of its interest in and to the Letter of Credit to the holder of any mortgage upon the Building or the successor landlord in connection with a transfer of the Building, from or as a part of the assignment by Landlord of its rights and interests in and to this Lease. In the event of a transfer of Landlord's interest in the Building, Landlord shall transfer the Letter of Credit, in whole or in part, to the transferee and thereupon Landlord shall without any further agreement between the parties, be released by Tenant from all liability therefor. The provisions of this subsection (c) shall apply to every transfer or assignment of the whole of said Letter of Credit to a new landlord. In connection with any such transfer of the Letter of Credit by Landlord, Tenant shall, at Landlord's sole cost and expense, execute and submit to the Bank such applications, documents and instruments as may be necessary to effectuate such transfer, and Landlord shall be responsible for paying the Bank's transfer and processing fees in connection therewith.

(d) Maintenance of Letter of Credit by Tenant. If, as a result of any drawing by Landlord on the Letter of Credit, the amount of the Letter of Credit shall be less than the Letter of Credit Amount, Tenant shall, within ten (10) days thereafter, provide Landlord with additional letter(s) of credit in an amount equal to the deficiency, and any such additional letter(s) of credit shall comply with all of the provisions of this Section. Tenant further covenants and warrants that it will neither assign nor encumber the Letter of Credit or any part thereof and that neither Landlord nor its successors or assigns will be bound by any such assignment, encumbrance, attempted assignment or attempted encumbrance. Without limiting the generality of the foregoing, if the Letter of Credit expires earlier than the date which is sixty (60) days after the Expiration Date, or if Tenant otherwise fails to maintain the Letter of Credit in the amount and in accordance with the terms set forth in this Section, Landlord shall have the right to present the Letter of Credit to the Issuing Bank (accompanied by a letter or certificate executed by a representative of the Landlord stating that the Landlord is entitled to draw on this Letter of Credit under this Lease) in accordance with the terms of this Section, and the proceeds of the Letter of Credit may be applied by Landlord against any Rent payable by Tenant under this Lease that is not paid when due and/or to pay for all losses and damages that Landlord has suffered as a result of any breach or default by Tenant under this Lease.

(e) Landlord's Right to Draw Upon Letter of Credit. Tenant hereby acknowledges and agrees that Landlord is entering into this Lease in material reliance upon the ability of Landlord to draw upon the Letter of Credit upon the occurrence of any breach or default on the part of Tenant under this Lease which continues beyond applicable notice and cure periods. If Tenant shall be in default hereunder beyond any applicable grace or cure periods, Landlord may, but without obligation to do so, upon notice to Tenant (accompanied by a letter or certificate executed by a representative of the Landlord stating that the Landlord is entitled to draw on this Letter of Credit under this Lease), draw upon the Letter of Credit, in part or in whole, to cure any breach or default of Tenant and/or to compensate Landlord for any and all damages of any kind or nature sustained resulting from such Tenant's breach or default. The use, application or retention of the Letter of Credit, or any portion thereof, by Landlord shall not prevent Landlord from exercising any other right or remedy provided by this Lease or by any applicable law, it being intended that Landlord shall not first be required to proceed against the Letter of Credit, and shall not operate as a limitation on any recovery to which Landlord may otherwise be

entitled. Tenant agrees not to interfere in any way with payment to Landlord of the proceeds of the Letter of Credit, either prior to or following a "draw" by Landlord of any portion of the Letter of Credit, regardless of whether any dispute exists between Tenant and Landlord as to Landlord's right to draw upon the Letter of Credit. No condition or term of this Lease shall be deemed to render the Letter of Credit conditional to justify the issuer of the Letter of Credit in failing to honor a drawing upon such Letter of Credit in a timely manner. Tenant agrees and acknowledges that (a) the Letter of Credit constitutes a separate and independent contract between Landlord and the Bank, (b) Tenant is not a third party beneficiary of such contract, (c) Tenant has no property interest whatsoever in the Letter of Credit or the proceeds thereof, and (d) in the event Tenant becomes a debtor under any chapter of the Bankruptcy Code, neither Tenant, any trustee, nor Tenant's bankruptcy estate shall have any right to restrict or limit Landlord's claim and/or rights to the Letter of Credit and/or the proceeds thereof by application of Section 502(b)(6) of the U. S. Bankruptcy Code or otherwise.

(f) Notwithstanding the foregoing, provided that no Event of Default has occurred prior to or on the fourth (4th) anniversary of the Rent Commencement Date (the "**L/C Reduction Date**"), Tenant shall have the right to request by written notice to Landlord delivered within thirty (30) days after the First L/C Reduction Date that the Security Deposit be reduced to $2,426,666.67 (the "**Reduced L/C Amount**"). Tenant's new Letter of Credit shall meet the requirements of this Section 20.29 reflecting the Reduced L/C Amount, and subject to the terms hereof, Landlord and Tenant shall cooperate to arrange for delivery of the new Letter of Credit and return to Tenant of the original Letter of Credit.

Notwithstanding the foregoing, provided that no Event of Default has occurred prior to or on the eighth (8th) anniversary of the Rent Commencement Date (the "**Security Deposit Elimination Date**") and the the Security Deposit shall have been previously reduced to the Reduced L/C Amount, then Tenant shall have the right to request by written notice to Landlord delivered within thirty (30) days after the Security Deposit Elimination Date that the Security Deposit be reduced to $0. Subject to the terms hereof, Landlord shall return to Tenant the Letter of Credit then being held by Landlord for the Security Deposit within thirty (30) days after receipt of Tenant's written request.

Section 20.30 – Roof Rights.

(a) Subject to the terms and conditions hereof, Tenant shall have the right, at no additional charge, but otherwise subject to the terms and conditions of this Lease, to use the surface space on the roof of the Building within the entire rooftop area above the Premises, subject to Landlord's prior reasonable approval, but only to the extent necessary to allow Landlord to perform its maintenance and repair obligations with respect to the roof (the "Roof Area"), for the purpose of installing (in accordance with Article XII), operating and maintaining **[**telecommunications equipment and/or supplemental HVAC devices**]** (collectively, the "Tenant's Roof Equipment") approved by Landlord.

(b) Tenant shall install Tenant's Roof Equipment at its sole cost and expense, at such times and in such manner as Landlord may reasonably designate and in

accordance with all of the provisions of this Lease, including without limitation Article XII. Tenant shall not install or operate Tenant's Roof Equipment until it receives prior written approval of the plans for such work (including the manner in which the Tenant's Roof Equipment are attached to the roof of the Building and the manner in which any cables are run to and from the Tenant's Roof Equipment) in accordance with Article XII. Landlord may withhold approval if the installation or operation of Tenant's Roof Equipment reasonably would be expected to damage the Base Building, but otherwise Landlord shall not unreasonably withhold, condition or delay approval. Tenant shall be solely responsible for obtaining all necessary governmental and regulatory approvals and for the cost of installing, operating, maintaining and removing the Tenant's Roof Equipment. In addition, if required by any governmental approvals or if at any time Landlord, in its sole but reasonable discretion, deems it necessary, Tenant shall provide and install, at Tenant's sole cost and expense, appropriate aesthetic screening, reasonably satisfactory to Landlord, for the Tenant's Roof Equipment.

Tenant shall engage Landlord's roofer before beginning any rooftop installations or repairs of Tenant's Roof Equipment, whether under this Section 20.30 or otherwise, and shall always comply with any roof warranty governing the protection of the roof and modifications to the roof. Tenant, at its sole cost and expense, shall inspect the Roof Area periodically (and at least once per year) and correct any loose bolts, fittings or other appurtenances and shall repair any damage to the roof caused by the installation or operation of Tenant's Roof Equipment.

(c) Tenant agrees that the installation, operation and removal of Tenant's Roof Equipment shall be at its sole risk. Tenant shall indemnify and defend Landlord and the Landlord Parties against any liability, claim or cost, including reasonable attorneys' fees, incurred in connection with the loss of life, personal injury, damage to property or business or any other loss or injury (except to the extent due to the negligence or willful misconduct of Landlord or a Landlord Party) arising out of the installation, use, operation, or removal of Tenant's Roof Equipment by Tenant or its employees, agents, contractors, or invitees, including any liability arising out of Tenant's violation of this Section 20.30. Landlord assumes no responsibility for interference in the operation of Tenant's Roof Equipment caused by other tenants' equipment, or for interference in the operation of other tenants' equipment caused by Tenant's Roof Equipment. The provisions of this Section 20.30 shall survive the expiration or earlier termination of this Lease.

(d) Upon the expiration or earlier termination of the Lease, Tenant, at its sole cost and expense, shall (i) remove Tenant's Roof Equipment from the Roof Area in accordance with the provisions of this Lease and (ii) leave the Roof Area in good order and repair, reasonable wear and tear excepted. If Tenant does not remove

Tenant's Roof Equipment when so required, Landlord may remove and dispose of it and charge Tenant for all costs and expenses incurred.

(e) It is understood and agreed that the installation, maintenance, operation and removal of the Tenant's Roof Equipment and aesthetic screening, if any, is not permitted to damage the Building or the roof thereof, nor interfere with the use of the Building and roof by Landlord. Tenant shall be responsible for any damage to the roof or any other part of the Building caused by Tenant or any of its agents, contractors or representatives in the exercise of Tenant's rights under this Section 20.30. If Tenant's Roof Equipment (i) causes physical damage to the Base Building, (ii) materially interferes with any telecommunications, mechanical or other systems located at or servicing the Building, or (iii) interferes with any other service provided to other tenants in the Building, in each case in excess of that permissible under F.C.C. or other regulations (to the extent that such regulations apply and do not require such tenants or those providing such services to correct such interference or damage), Tenant shall within ten (10) business days of notice of a claim of interference or damage cooperate with Landlord or any other tenant or third party making such claim to determine the source of the damage or interference and effect a prompt solution at Tenant's expense (if Tenant's Roof Equipment caused such interference or damage).

(f) Tenant agrees that if Landlord makes or plans to make any repairs, alterations, modifications, additions or improvements to the Building (including any repairs or replacement of the roof, other components of the Base Building) that will require an adjustment or modification to the Roof Area or removal of the Tenant's Roof Equipment in order to perform such work, Tenant shall be responsible, at Landlord's cost, for the removal and storage of such Tenant's Roof Equipment and any re-installation thereof in the Roof Area after completion of such work by Landlord. Landlord shall give Tenant at least ninety (90) days' prior written notice of any request for such removal of the Tenant's Roof Equipment, except in cases of emergency for which no prior written notice shall be required.

(g) Notwithstanding anything to the contrary herein, the Tenant's Roof Equipment may be used only in direct support of Tenant's operations at the Premises, and Tenant shall not be permitted to license or grant other parties the right to use the same, nor shall Tenant allow its service providers to use the Roof Area and/or Tenant's Roof Equipment to provide services to any other party, or to facilitate the provision of services by any other service provider. Landlord hereby reserves the right to grant roof rights to other tenants or telecommunications service providers from time to time. Tenant shall also cooperate with any uniformly applied reasonable rooftop management policy and any telecommunications management policy which Landlord may implement for the Building.

Section 20.31 – pH Neutralization System.

As part of the Tenant Improvements or in connection with any future Alteration, Tenant may install a pH neutralization system for the Premises, subject to Landlord's prior approval of the

plans and specifications therefor in accordance with the provisions of Article VII, which approval shall not be unreasonably withheld, conditioned or delayed. Tenant shall have the right to connect to and use the pH neutralization system (which shall be a dedicated system for the Premises and not a Building system), subject to the following conditions:

(1) Tenant's use of the pH neutralization system shall be at Tenant's sole risk to the extent permitted pursuant to applicable laws.

(2) Tenant's use of the pH neutralization system shall be undertaken by Tenant in compliance with all applicable laws and Tenant shall obtain any and all permits, including, but not limited to the MWRA Permit, required in connection with such use by Tenant.

(3) Initially, the pH neutralization system shall be installed in the location designated therefor in the Tenant Improvement Plans as approved by Landlord.

(4) The costs to operate, maintain, and repair the pH neutralization system shall be at Tenant's sole cost and expense (provided that the Landlord's Contribution may be applied toward the cost incurred by Tenant to install the same).

(5) The use of the pH neutralization system shall be subject to the rules and regulations for the Building.

Tenant shall not introduce any substances or materials into the pH neutralization system which (x) are in violation of the terms of the MWRA Permit, (y) are in violation of applicable laws, or (z) would interfere with the proper functioning of the pH neutralization system.

Section 20.32 – Specialty Systems.

Tenant shall have the right to install, at Tenant's sole cost, a back-up generator on the Property and associated gas line and related components, water treatment and LN2 Systems (collectively, the "Tenant's Specialty Systems"), in the locations designated therefor by Landlord, subject to Landlord's prior written approval of Tenant's plans and specifications therefor, which approval shall not be unreasonably withheld, conditioned or delayed. Tenant shall also have the non-exclusive right to access those portions of the Building and the Property, to the extent necessary for the installation, operation, maintenance, and repair of the Tenant's Specialty Systems. Landlord shall have no obligations to Tenant with respect to the installation, operation, repair, maintenance or replacement of the Tenant's Specialty Systems. Tenant shall be responsible, at Tenant's sole cost and expense, for maintaining, testing, refueling and cleaning the Tenant's Specialty Systems, all in compliance with applicable laws. Tenant shall, at its own cost and expense, enter into a regularly scheduled preventive maintenance/service contract with a maintenance contractor approved by Landlord for servicing each of the Tenant's Specialty Systems (and a copy thereof shall be furnished to Landlord). The service contract must include all services suggested by the equipment manufacturers in the operation/maintenance manual or required by applicable government laws, ordinances, rules and regulations. Landlord may, upon notice to Tenant, enter into such a maintenance/service contract on behalf of Tenant or perform

the work and, in either case, charge Tenant the cost thereof along with a reasonable amount for Landlord's overhead.

Tenant acknowledges and agrees that access to any portion of the Tenant's Specialty Systems located outside of the Premises shall be subject to coordination with the Landlord for such access. Tenant shall at all times comply with any and permits and approvals issues by applicable governmental authorities with respect to the use of the Tenant's Specialty Systems. Tenant's use of the Tenant's Specialty Systems shall not at any time: cause any interference with (w) the Building's operating or mechanical systems, (x) the operations of any tenant in the Building, (y) any telecommunications equipment in or on the Building (A) of any telecommunications service provider which makes its services available generally to the tenants of the Building or (B) serving a larger portion of the Building than the Premises. Notwithstanding anything to the contrary contained in Section 12.1 of the Lease, following notice to Tenant asking Tenant to remove Tenant's Specialty Systems prior to the termination of the Lease and Tenant failing to complete such removal, in the event Landlord elects to remove any of Tenant's Specialty Systems and completes the removal thereof within ninety (90) days following the end of the Term, Tenant shall reimburse Landlord for its actual, documented, out-of-pocket costs of such removal within thirty (30) days following Tenant's receipt of Landlord's invoice therefor, accompanied by reasonably detailed documentation supporting such costs, given delivered within fifteen (15) days following the completion of such removal; provided, however, that Landlord shall have delivered Tenant an estimate of such costs of removal no later than five (5) business days prior to the commencement of such removal. Landlord shall have the right to retain the Letter of Credit until Landlord's receipt of Tenant's reimbursement of such removal costs; provided that Tenant shall have the right to deposit with Landlord a cash security deposit for the cost of such removal in lieu of the Letter of Credit, in which event Landlord will return the Letter of Credit to Tenant promptly after its receipt of such a cash security deposit.

Section 20.33 – Building Security and Security System.

Landlord reserves the right from time to time to modify components of the access procedures or other security measures for the Building or other portions of the Property, or to institute, modify, supplement, or discontinue any particular security measures, access control procedures or equipment for the Building, as Landlord deems advisable. Landlord does not warrant or guarantee the effectiveness of any such security measures, system or procedures. Tenant acknowledges that security measures and access control procedures from time to time in effect are solely for the convenience of tenants generally and are not intended to secure the Premises or to guarantee the safety or security of any persons in or about the Premises or the Property. Tenant shall have the right to install security systems for the Premises in accordance with the terms and provisions of Article XII.

Section 20.34 – Repairs/Self Help.

If Landlord fails to make any of the repairs required to be made by Landlord under this Lease within thirty (30) days after receipt of written notice from Tenant of the necessity therefor (or if such repair cannot reasonably be made within thirty (30) days, then within such reasonable additional time, provided that Landlord has commenced the repair within such initial thirty (30) day period and thereafter diligently prosecutes the same to completion), Tenant, in addition to

any other rights it may have hereunder, shall have the right to send a second written notice to Landlord indicating Tenant's intent to exercise self-help, and if Landlord fails to perform such repairs within ten (10) days after Landlord's receipt of such notice of intent to exercise self-help, Tenant may make said repairs on behalf of Landlord and charge Landlord for the reasonable cost thereof; provided, however, that Tenant's right hereunder to exercise self-help shall be limited to the interior, non-structural portions of the Premises and dedicated systems and equipment exclusively serving the Premises (and specifically excluding any base building or shared systems or facilities), and provided further that Tenant shall not violate or render void any warranties maintained by Landlord. If, in an emergency, in Tenant's reasonable opinion, any such repairs are immediately necessary to avoid damage to the Premises, then the foregoing thirty (30) day and ten (10) day notice and cure periods may be shortened or eliminated as warranted, taking into account exigent circumstances, but Tenant shall give Landlord whatever notice is reasonable in the circumstances and may make said repairs on behalf of the Landlord and charge Landlord for the reasonable cost thereof, subject to the other terms and provisions herein. In either event, if Landlord shall fail to pay Tenant the reasonable cost thereof within thirty (30) days of receipt of an invoice therefor with supporting documentation, Tenant may deduct the unpaid and overdue amount, together with interest from the date the same was due at the Default Rate, from the next installment(s) of Annual Fixed Rent otherwise becoming due hereunder, provided that the amount of such deduction shall be limited on a monthly basis to thirty percent (30%) of the Monthly Fixed Rent then due. The provisions of this Section 20.34 are personal to the original Tenant named herein and any Permitted Transferees and may not be exercised by any other assignees or subtenants.

Section 20.35 – Landlord's Default.

In the event of any default by Landlord under this Lease ("Landlord Default"), Tenant may give Landlord written notice specifying such Landlord Default and, if Tenant shall do so, then Landlord shall have thirty (30) days in which to cure any such Landlord Default; provided, however, that if the nature of the Landlord Default is such that more than thirty (30) days are required for its cure, then Landlord shall not be in default if Landlord commences to cure within said thirty (30) days and thereafter diligently prosecutes the same to completion.

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WITNESS the execution hereof in any number of counterpart copies, each of which shall be deemed an original for all purposes as of the day and year first above written.

ZINC II PROPCO 2020, LLC, a Delaware limited liability company

By: /s/ Andrew Chused
Name: Andrew Chused

Its: Managing Partner
Hereunto duly authorized

[LANDLORD]

GENERATION BIO CO., a Delaware corporation

By: /s/ Geoff McDonough
Name: Geoff McDonough
Its: President and Chief Executive Officer
Hereunto duly authorized

[TENANT]

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Geoff McDonough, hereby certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Generation Bio Co.;

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)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer 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: November 10, 2021

/s/ Geoff McDonough

Geoff McDonough, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew Norkunas, hereby certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Generation Bio Co.;

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)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer 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: November 10, 2021

/s/ Matthew Norkunas

Matthew Norkunas, M.D., M.B.A.
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Geoff McDonough, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Quarterly Report on Form 10-Q of Generation Bio Co. for the quarter ended September 30, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in such Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Generation Bio Co.

/s/ Geoff McDonough

Geoff McDonough, M.D.
President and Chief Executive Officer
(Principal Executive Officer)
November 10, 2021

Exhibit 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew Norkunas, certify pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge, the Quarterly Report on Form 10-Q of Generation Bio Co. for the quarter ended September 30, 2021 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in such Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Generation Bio Co.

/s/ Matthew Norkunas

Matthew Norkunas, M.D., M.B.A.
Chief Financial Officer
(Principal Financial and Accounting Officer)
November 10, 2021