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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2012

OR

o 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: 001-35409

Merrimack Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**04-3210530**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
One Kendall Square, Suite B7201 **Cambridge, MA**	**02139**
(Address of principal executive offices)	(Zip Code)

(617) 441-1000
(Registrant's telephone number, including area code)

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes x No o

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

Large accelerated filer o	Accelerated filer o
Non-accelerated filer x (Do not check if a smaller reporting company)	Smaller reporting company o

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

As of October 31, 2012, there were 94,181,419 shares of Common Stock, $0.01 par value per share, outstanding.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Quarterly Report on Form 10-Q, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue" and 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 on Form 10-Q include, among other things, statements about:

- our plans to develop and commercialize our most advanced product candidates and companion diagnostics;
- our ongoing and planned discovery programs, preclinical studies and clinical trials;
- our collaborations with PharmaEngine, Inc. related to MM-398 and with Sanofi related to MM-121;
- our ability to establish and maintain additional collaborations;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of our products;
- our intellectual property position;
- our commercialization, marketing and manufacturing capabilities and strategy;
- the potential advantages of our Network Biology approach to drug research and development;
- the potential use of our Network Biology approach in fields other than oncology; and
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you 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 on Form 10-Q, particularly in Part II, Item 1A. Risk Factors, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make.

You should read this Quarterly Report on Form 10-Q and the documents that we have filed as exhibits to the Quarterly Report on Form 10-Q completely and with the understanding that our actual future results may be materially different from what we expect. 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 law.

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PART I
FINANCIAL INFORMATION

Item 1. Financial Statements.

Merrimack Pharmaceuticals, Inc.
Condensed Consolidated Balance Sheets

(in thousands, except par value) (unaudited)	December 31, 2011	September 30, 2012
Assets		
Current assets:		
Cash and cash equivalents	$ 50,454	$ 27,909
Available-for-sale securities	—	58,759
Restricted cash	—	100
Accounts receivable	7,426	6,054
Deferred financing costs	1,946	—
Prepaid expenses and other current assets	5,763	11,259
Total current assets	65,589	104,081
Restricted cash	381	381
Property and equipment, net	6,206	4,834
Other assets	23	1,055
Intangible assets, net	2,485	2,245
In-process research and development	7,010	7,010
Goodwill	3,605	3,605
Total assets	**$ 85,299**	**$ 123,211**
Liabilities, Convertible Preferred Stock, Non-controlling Interest and Stockholders' (Deficit) Equity		
Current liabilities:		
Accounts payable	$ 4,656	$ 771
Accrued expenses and other	12,855	16,759
Dividends payable	—	88
Capital lease obligations	48	—
Deferred revenues	7,712	8,764
Deferred lease benefits	125	1,295
Deferred tax incentives	755	512
Total current liabilities	26,151	28,189
Deferred revenues	78,033	74,980
Deferred lease benefits	23	6,140
Deferred tax incentives	1,267	883
Convertible preferred stock warrants	1,516	—
Total liabilities	106,990	110,192
Commitments and contingencies (Note 10)		
Convertible preferred stock	268,225	—
Non-controlling interest	574	222
Stockholders' (deficit) equity:		
Preferred stock, $0.01 par value: no shares and 10,000 shares authorized at December 31, 2011 and September 30, 2012, respectively; no shares issued or outstanding at December 31, 2011 and September 30, 2012, respectively	—	—
Common stock, $0.01 par value: 138,500 and 200,000 shares authorized at December 31, 2011 and September 30, 2012, respectively; 11,834 and 94,029 shares issued and outstanding at December 31, 2011 and September 30, 2012, respectively	118	940
Additional paid-in capital	60,231	429,195
Accumulated other comprehensive income	—	10
Accumulated deficit	(350,839)	(417,348)
Total stockholders' (deficit) equity	(290,490)	12,797
Total liabilities, convertible preferred stock, non-controlling interest and stockholders' (deficit) equity	**$ 85,299**	**$ 123,211**

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

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Merrimack Pharmaceuticals, Inc.
Condensed Consolidated Statements of Comprehensive Income (Loss)

(in thousands, except per share amounts) (unaudited)	Three months ended September 30, 2011	Three months ended September 30, 2012	Nine months ended September 30, 2011	Nine months ended September 30, 2012
Collaboration revenues	$ 8,582	$ 11,323	$ 21,638	$ 34,730
Operating expenses				
Research and development	23,913	30,885	73,101	91,294
General and administrative	3,306	4,312	11,239	11,650
Total operating expenses	27,219	35,197	84,340	102,944
Loss from operations	(18,637)	(23,874)	(62,702)	(68,214)
Other income and expenses				
Interest income	8	64	51	127
Interest expense	(2)	—	(12)	—
Other, net	(93)	490	1,208	1,226
Net loss	(18,724)	(23,320)	(61,455)	(66,861)
Less net loss attributable to non-controlling interest	(125)	(121)	(348)	(352)
Net loss attributable to Merrimack Pharmaceuticals, Inc.	$ (18,599)	$ (23,199)	$ (61,107)	$ (66,509)
Other comprehensive income:				
Unrealized gain on available-for-sale securities	—	59	—	10
Other comprehensive income	—	59	—	10
Comprehensive loss	(18,599)	(23,140)	(61,107)	(66,499)
Net loss per share available to common stockholders—basic and diluted	$ (1.81)	$ (0.25)	$ (5.92)	$ (1.05)
Weighted-average common shares used in computing net loss per share available to common stockholders—basic and diluted	11,389	93,724	11,292	65,487

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

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Merrimack Pharmaceuticals, Inc.
Condensed Consolidated Statements of Cash Flows

(in thousands) (unaudited)	Nine months ended September 30, 2011	Nine months ended September 30, 2012
Cash flows from operating activities		
Net loss	$ (61,455)	$ (66,861)
Adjustments to reconcile net loss to net cash used in operating activities		
Remeasurement of convertible preferred stock warrants	742	(587)
Amortization of premium on available-for-sale securities	—	810
Amortization of deferred lease benefits and tax incentives	(567)	(903)
Depreciation and amortization	4,029	3,036
Stock-based compensation	5,573	4,932
Changes in operating assets and liabilities		
Purchased premiums and interest on available-for-sale securities	—	(1,760)
Accounts receivable	(1,584)	1,372
Accounts payable	3,446	(3,885)
Accrued expenses and other	3,583	3,904
Deferred revenues	1,734	(2,001)
Other assets and liabilities, net	(1,863)	1,561
Net cash used in operating activities	(46,362)	(60,382)
Cash flows from investing activities		
Purchases of available-for-sale securities	—	(73,825)
Proceeds from maturities of available-for-sale securities	—	15,500
Purchases of property and equipment	(2,468)	(1,424)
Other investing activities, net	8	(100)
Net cash used in investing activities	(2,460)	(59,849)
Cash flows from financing activities		
Proceeds from initial public offering, net of offering costs	—	100,025
Proceeds from issuance of convertible preferred stock, net of offering costs	76,949	—
Proceeds from exercise of stock options	786	1,859
Proceeds from exercise of stock warrants	—	26
Principal payments on capital lease obligations	(394)	(48)
Payment of dividends on Series B convertible preferred stock	—	(4,176)
Net cash provided by financing activities	77,341	97,686
Net increase (decrease) in cash and cash equivalents	28,519	(22,545)
Cash and cash equivalents, beginning of period	30,713	50,454
Cash and cash equivalents, end of period	59,232	27,909
Non-cash investing and financing activities		
Conversion of convertible preferred stock to common stock	—	268,225
Conversion of convertible preferred stock warrants to common stock warrants	—	929
Reclassification of deferred financing costs to stockholders' equity	—	2,748
Dividends on Series B convertible preferred stock declared but not paid	—	88

Supplemental disclosure of cash flows				
Cash paid for interest	$	12	$	—

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

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Merrimack Pharmaceuticals, Inc.
Notes to Condensed Consolidated Financial Statements
(unaudited)

1. Nature of the Business

Merrimack Pharmaceuticals, Inc. (the "Company") is a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines consisting of novel therapeutics paired with companion diagnostics. The Company has five targeted therapeutic oncology candidates in clinical development (MM-398, MM-121, MM-111, MM-302 and MM-151), multiple product candidates in preclinical development and a discovery effort advancing additional candidate medicines. The Company's discovery and development effort is driven by Network Biology, which is its proprietary systems biology-based approach to biomedical research.

The Company is subject to risks and uncertainties common to companies in the biopharmaceutical industry, including, but not limited to, its ability to secure additional capital to fund operations, success of clinical trials, development by competitors of new technological innovations, dependence on collaborative arrangements, protection of proprietary technology, compliance with government regulations and dependence on key personnel. Product candidates currently under development will require significant additional research and development efforts, including extensive preclinical and clinical testing and regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel, infrastructure and extensive compliance reporting capabilities.

The Company has incurred significant losses and does not have commercial operations underway. The accompanying condensed consolidated financial statements have been prepared on a basis which assumes that the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the normal course of business.

In April 2012, the Company closed the initial public offering of its common stock pursuant to a registration statement on Form S-1, as amended. The Company sold an aggregate of 15,042,459 shares of common stock under the registration statement at a public offering price of $7.00 per share, including 742,459 shares pursuant to the exercise by the underwriters of an over-allotment option. Net proceeds were approximately $98.1 million, after deducting underwriting discounts and commissions and other offering expenses but prior to the payment of dividends on the Company's Series B convertible preferred stock. On November 8, 2012, as further described in Note 12, the Company entered into a Loan and Security Agreement (the "Loan Agreement") with Hercules Technology Growth Capital, Inc. ("Hercules") pursuant to which a term loan of up to an aggregate principal amount of $40.0 million is available to the Company. The Loan Agreement provides for an initial term loan advance of $25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to $15.0 million, which is available at any time through December 15, 2012 upon the Company's request.

As of September 30, 2012, the Company had unrestricted cash and cash equivalents and available-for-sale securities of $86.7 million. The Company expects its existing unrestricted cash and cash equivalents and available-for-sale securities on hand as of September 30, 2012, plus the $40.0 million term loan made available under the Loan Agreement with Hercules, to be sufficient to fund operations into 2014.

The Company may seek additional funding through public or private debt or equity financings, or through existing or new collaboration arrangements. The Company may not be able to obtain financing on

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acceptable terms, or at all, and the Company may not be able to enter into additional collaborative arrangements. The terms of any financing may adversely affect the holdings or the rights of the Company's stockholders. Arrangements with collaborators or others may require the Company to relinquish rights to certain of its technologies or product candidates. If the Company is unable to obtain funding, the Company could be forced to delay, reduce or eliminate its research and development programs or commercialization efforts, which could adversely affect its business prospects.

2. Summary of Significant Accounting Policies

Significant accounting policies followed by the Company in the preparation of its condensed consolidated financial statements are as follows:

Basis of Presentation

The accompanying condensed consolidated financial statements as of September 30, 2012, and for the three and nine months ended September 30, 2011 and 2012, have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission (the "SEC") and generally accepted accounting principles in the United States of America ("GAAP") for condensed consolidated financial information. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of management, these condensed consolidated financial statements reflect all adjustments which are necessary for a fair statement of the Company's financial position and results of its operations, as of and for the periods presented. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in the Company's Current Report on Form 8-K filed with the SEC on April 27, 2012.

The information presented in the condensed consolidated financial statements and related notes as of September 30, 2012, and for the three and nine months ended September 30, 2011 and 2012, is unaudited. The December 31, 2011 condensed consolidated balance sheet included herein was derived from the audited financial statements as of that date, but does not include all disclosures, including notes, required by GAAP for complete financial statements.

Interim results for the three and nine months ended September 30, 2012 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2012, or any future period.

Principles of Consolidation

These condensed consolidated financial statements include the accounts of the Company, its wholly owned subsidiary Hermes BioSciences, Inc., which was merged with and into the Company during 2011, its wholly owned subsidiary Merrimack Pharmaceuticals (Bermuda) Ltd., which was incorporated during 2011, and its 74% majority owned subsidiary Silver Creek Pharmaceuticals, Inc. ("Silver Creek"). All intercompany transactions and balances have been eliminated in consolidation.

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There were no changes to the Company's ownership of Silver Creek during the nine months ended September 30, 2011 and 2012. The Company's consolidated financial statement activity related to Silver Creek during these periods was as follows:

(in thousands)	Non-Controlling Interest
Balance at December 31, 2010	$ 1,027
Net loss attributable to Silver Creek	(348)
Balance at September 30, 2011	$ 679

	Non-Controlling Interest
Balance at December 31, 2011	$ 574
Net loss attributable to Silver Creek	(352)
Balance at September 30, 2012	$ 222

Use of Estimates

GAAP requires the Company's management to make estimates and judgments that may affect the reported amounts of assets, liabilities, revenues, expenses and related disclosures. The Company bases estimates and judgments on historical experience and on various other factors that it believes to be reasonable under the circumstances. The significant estimates in these condensed consolidated financial statements include revenue recognition, lease accounting, useful lives with respect to long-lived assets and intangibles and the valuation of stock options, convertible preferred stock warrants, contingencies, accrued expenses, intangible assets, goodwill, in-process research and development and tax valuation reserves. The Company's actual results may differ from these estimates under different assumptions or conditions. The Company evaluates its estimates on an ongoing basis. Changes in estimates are reflected in reported results in the period in which they become known by the Company's management.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents are short-term, highly liquid investments with original maturities of three months or less at the date of purchase. Investments qualifying as cash equivalents primarily consist of money market funds and commercial paper.

Cash accounts with any type of restriction are classified as restricted cash. If restrictions are expected to be lifted in the next twelve months, the restricted cash account is classified as current. As of December 31, 2011 and September 30, 2012, the Company recorded restricted cash of $381,000 and $481,000, respectively.

Marketable Securities

Marketable securities as of September 30, 2012 consisted of U.S. government agencies securities and corporate debt securities, including commercial paper, which were maintained by an investment manager. The Company classified these investments as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses included in other comprehensive income (loss) as a component of stockholders' equity until realized. Realized gains and losses are recognized in interest income. There were no realized gains or losses recognized on the sale or maturity of securities during the three and nine months ended September 30, 2012.

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Available-for-sale securities, all of which have maturities of twelve months or less, as of September 30, 2012 consisted of the following:

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
	(in thousands)			
September 30, 2012:				
U.S. government agencies securities	$ 1,000	$ —	$ —	$ 1,000
Corporate debt securities	57,749	12	(2)	57,759
Total	$ 58,749	$ 12	$ (2)	$ 58,759

The aggregate fair value of securities held by the Company in an unrealized loss position for less than 12 months as of September 30, 2012 was $22.0 million, representing 8 securities. To determine whether an other-than-temporary impairment exists, the Company performs an analysis to assess whether it intends to sell, or whether it would more likely than not be required to sell, the security before the expected recovery of the amortized cost basis. Where the Company intends to sell a security, or may be required to do so, the security's decline in fair value is deemed to be other-than-temporary and the full amount of the unrealized loss is recognized on the statement of comprehensive income (loss) as an other-than-temporary impairment charge. When this is not the case, the Company performs additional analysis on all securities with unrealized losses to evaluate losses associated with the creditworthiness of the

security. Credit losses are identified where the Company does not expect to receive cash flows, based on using a single best estimate, sufficient to recover the amortized cost basis of a security and amount of the loss recognized in other income (expense).

Marketable securities in an unrealized loss position as of September 30, 2012 consisted of the following:

	Aggregate Fair Value	Unrealized Losses
	(in thousands)	
September 30, 2012:		
Corporate debt securities	21,979	(2)

The Company does not intend to sell and it is not more likely than not that the Company will be required to sell the above investments before recovery of their amortized cost bases, which may be maturity. The Company determined that there was no material change in the credit risk of the above investments. As a result, the Company determined it did not hold any investments with an other-than-temporary-impairment as of September 30, 2012.

Concentrations of Credit Risk

Financial instruments that subject the Company to credit risk consist primarily of cash and cash equivalents, available-for-sale securities and accounts receivable. The Company places its cash deposits in accredited financial institutions and, therefore, the Company's management believes these funds are subject to minimal credit risk. The Company invests cash equivalents and available-for-sale securities in money market funds, U.S. government agencies securities and corporate debt securities. Credit risk in these securities is reduced as a result of the Company's investment policy to limit the amount invested in any one issue or any single issuer and to only invest in high credit quality securities.

Revenue Recognition

The Company enters into biopharmaceutical product development agreements with collaborative partners for the research and development of therapeutic and diagnostic products. The terms of the agreements may include nonrefundable signing and licensing fees, funding for research, development and manufacturing, milestone payments and royalties on any product sales derived from collaborations. These multiple element arrangements are analyzed to determine whether the deliverables can be separated or whether they must be accounted for as a single unit of accounting.

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In January 2011, the Company adopted new authoritative guidance on revenue recognition for multiple element arrangements. This guidance, which applies to multiple element arrangements entered into or materially modified on or after January 1, 2011, amends the criteria for separating and allocating consideration in a multiple element arrangement by modifying the fair value requirements for revenue recognition and eliminating the use of the residual method. The fair value of deliverables under the arrangement may be derived using a best estimate of selling price if vendor specific objective evidence and third-party evidence are not available. Deliverables under the arrangement will be separate units of accounting provided that a delivered item has value to the customer on a stand-alone basis and if the arrangement does not include a general right of return relative to the delivered item and delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor. The Company also adopted guidance that permits the recognition of revenue contingent upon the achievement of a milestone in its entirety, in the period in which the milestone is achieved, only if the milestone meets certain criteria and is considered to be substantive. The Company did not enter into any significant multiple element arrangements or materially modify any of its existing multiple element arrangements during the year ended December 31, 2011 or the three and nine months ended September 30, 2012. The Company's existing license and collaboration agreements continue to be accounted for under previously issued revenue recognition guidance for multiple element arrangements and milestone revenue recognition, as described below.

The Company recognized upfront license payments as revenue upon delivery of the license only if the license had stand-alone value and the fair value of the undelivered performance obligations could be determined. If the fair value of the undelivered performance obligations could be determined, such obligations were accounted for separately as the obligations were fulfilled. If the license was considered to either not have stand-alone value or have stand-alone value but the fair value of any of the undelivered performance obligations could not be determined, the arrangement was accounted for as a single unit of accounting and the license payments and payments for performance obligations were recognized as revenue over the estimated period of when the performance obligations would be performed.

Whenever the Company determined that an arrangement should be accounted for as a single unit of accounting, it determined the period over which the performance obligations would be performed and revenue would be recognized. If the Company could not reasonably estimate the timing and the level of effort to complete its performance obligations under the arrangement, then revenue under the arrangement was recognized on a straight-line basis over the period the Company expected to complete its performance obligations, which is reassessed at each subsequent reporting period.

The Company's collaboration agreements may include additional payments upon the achievement of performance-based milestones. As milestones are achieved, a portion of the milestone payment, equal to the percentage of the total time that the Company has performed the performance obligations to date over the total estimated time to complete the performance obligations, multiplied by the amount of the milestone payment, will be recognized as revenue upon achievement of such milestone. The remaining portion of the milestone will be recognized over the remaining performance period. Milestones that are tied to regulatory approval are not considered probable of being achieved until such approval is received. Milestones tied to counter-party performance are not included in the Company's revenue model until the performance conditions are met.

Royalty revenue will be recognized upon the sale of the related products provided the Company has no remaining performance obligations under the arrangement.

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Convertible Preferred Stock and Convertible Preferred Stock Warrants

Convertible preferred stock is initially recorded at the proceeds received, net of issuance costs and warrants, where applicable. As described in Note 3, in April 2012, the Company closed the initial public offering of its common stock. Upon closing, all outstanding shares of the Company's convertible preferred stock were converted into 66,255,529 shares of common stock. Also upon closing, the Company's restated certificate of incorporation became effective and authorized 10.0 million shares of $0.01 par value undesignated preferred stock.

The Company accounts for freestanding warrants as liabilities at their fair value. The Company measures the fair value of the convertible preferred stock warrants at the end of each reporting period and records the change in fair value to other income (expense). For the three months ended September 30, 2011 and 2012, the Company recorded other income related to this remeasurement of $166,000 and $0, respectively, and for the nine months ended September 30, 2011 and 2012, the Company recorded other income (expense) related to this remeasurement of $(742,000) and $587,000, respectively. As described in Note 3, in April 2012, the Company closed the initial public offering of its common stock. Upon closing, all outstanding warrants to purchase shares of convertible preferred stock were converted into warrants to purchase shares of common stock and reclassified to stockholders' equity.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions, and other events and circumstances, from non-owner sources and currently consists of net loss and changes in unrealized gains and losses on available-for-sale securities. Comprehensive loss from operations was calculated as follows:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2011	2012	2011	2012
Net loss attributable to Merrimack Pharmaceuticals, Inc.	$ (18,599)	$ (23,199)	$ (61,107)	$ (66,509)
Unrealized gain on available-for-sale securities	—	59	—	10
Comprehensive loss	$ (18,599)	$ (23,140)	$ (61,107)	$ (66,499)

Other Income (Expense)

The Company records gains and losses on the remeasurement of fair value of convertible preferred stock warrants, the recognition of federal and state sponsored tax incentives and other one-time income or expense-related items in other income (expense).

In January 2010, the Massachusetts Life Sciences Center ("MLSC"), an independent agency of the Commonwealth of Massachusetts, awarded the Company $1,500,000 of tax incentives under its Life Sciences Tax Incentive Program. These incentives allowed the Company to monetize approximately $1,350,000 of state research and development tax credits. The Company received this monetization in 2010. In exchange for these incentives, the Company pledged to hire an incremental 50 employees and retain these employees until at least December 31, 2014. Failure to do so could result in the repayment of some or all of these incentives. The Company deferred and is amortizing the benefit of this monetization on a straight-line basis over the five year performance period, with a cumulative catch-up in the period the

pledge was achieved. For the three months ended September 30, 2011 and 2012, the Company recognized $67,000 of benefit in other income in each period. For the nine months ended September 30, 2011 and 2012, the Company recognized $203,000 of benefit in other income in each period.

In January 2011, the MLSC awarded the Company an additional $1,347,000 of tax incentives under its Life Sciences Tax Incentive Program, which allowed the Company to monetize approximately $1,212,000 of state research and development tax credits. The Company received this monetization in the second quarter of 2011. In exchange for these incentives, the Company pledged to hire an incremental 50 employees and retain these employees until at least December 31, 2015. Failure to do so could result in the repayment of some or all of these incentives. The Company deferred and is amortizing the benefit of this monetization on a straight-line basis over the five year performance period, with a cumulative catch-up in the period the pledge was achieved. For the three months ended September 30, 2011 and 2012, the Company recognized $0 and $424,000, respectively, of benefit in other income. For the nine months ended September 30, 2011 and 2012, the Company recognized $0 and $424,000, respectively, of benefit in other income.

Additionally, other income recognized during the nine months ended September 30, 2011 included the impact of a cash settlement of $1.8 million from a former service provider.

Deferred Financing Costs

The Company capitalizes certain legal, accounting and other fees that are directly associated with in-process debt and equity financings as current assets until such financings occur. In the case of an equity financing, after occurrence, these costs are recorded in equity or mezzanine equity, net of proceeds received. In the case of a debt financing, these costs are amortized over the term of the debt.

As of December 31, 2011, the Company recorded deferred financing costs of $1,946,000 in contemplation of an initial public offering. As discussed in Note 3, in April 2012, the Company closed the initial public offering of its common stock. Upon closing, $2,748,000 of deferred financing costs were netted against the equity proceeds within stockholders' equity.

Goodwill and Intangible Assets

Goodwill and indefinite-lived intangible assets, including in-process research and development ("IPR&D"), are evaluated for impairment on an annual basis, or more frequently if an indicator of impairment is present.

In July 2012, the Financial Accounting Standards Board issued ASU No. 2012-02, *Testing Indefinite-Lived Intangible Assets for Impairment* ("ASU 2012-02"). ASU 2012-02 is intended to reduce the cost and complexity of testing indefinite-lived intangible assets other than goodwill for impairment. It allows companies to perform a "qualitative" assessment to determine whether further impairment testing of indefinite-lived intangible assets is necessary. ASU 2012-02 is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012, with early adoption permitted. The Company adopted ASU 2012-02 in the third quarter of 2012 upon its annual impairment testing of indefinite-lived intangible assets.

No impairment of goodwill or indefinite-lived intangible assets resulted from the Company's most recent evaluation, which occurred in the third quarter of 2012. This evaluation included a qualitative assessment to determine whether further impairment testing of goodwill and indefinite-lived intangible assets was necessary. It was determined that it was not more likely than not that an impairment existed, and therefore, that further impairment evaluation was not necessary. This determination required

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management to make significant estimates, judgments and assumptions as to development activities and future commercial potential of IPR&D and to assess the impact of significant events, milestones and changes to expectations and activities that may have occurred since the last impairment evaluation. Specifically, management considered the estimates of time and cost until commencing commercial activities, estimates of future revenues and cash flows, estimates of probabilities of success of the Company's IPR&D and discount rates. Significant changes to these estimates, judgments and assumptions could materially change the outcome of management's impairment assessment. The Company's next annual impairment evaluation will be made in the third quarter of 2013, unless indicators arise that would require the Company to evaluate at an earlier date.

The Company commences amortization of indefinite-lived intangible assets, such as IPR&D, once the assets have reached technological feasibility or are determined to have an alternative future use and amortizes the assets over their estimated future life. Amortization of IPR&D has not commenced as of September 30, 2012.

Definite-lived intangible assets, such as core technology, are evaluated for impairment whenever events or circumstances indicate that the carrying value may not be fully recoverable. Definite-lived intangible assets are separate from goodwill and indefinite-lived intangible assets and are deemed to have a definite life. The Company amortizes these assets over their estimated useful life. The Company has not recorded any impairment charges related to definite-lived intangible assets.

3. Initial Public Offering

In April 2012, the Company closed the initial public offering of its common stock pursuant to a registration statement on Form S-1, as amended. The Company sold an aggregate of 15,042,459 shares of common stock under the registration statement at a public offering price of $7.00 per share, including 742,459 shares pursuant to the exercise by the underwriters of an over-allotment option. Net proceeds were approximately $98.1 million, after deducting underwriting discounts and commissions and other offering expenses but prior to the payment of dividends on the Company's Series B convertible preferred stock.

Upon closing the initial public offering, all outstanding shares of the Company's convertible preferred stock were converted into 66,255,529 shares of common stock, all outstanding warrants to purchase shares of convertible preferred stock were converted into warrants to purchase shares of common stock and approximately $4.3 million of cash dividends became payable to the holders of Series B convertible preferred stock.

4. Net Loss Per Common Share

Basic net loss per share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, convertible preferred stock, stock options and warrants are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive.

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The following table presents the computation of basic and diluted net loss per share available to common stockholders for the three and nine months ended September 30, 2011 and 2012:

(in thousands, except per share amount)	Three months ended September 30, 2011	Three months ended September 30, 2012	Nine months ended September 30, 2011	Nine months ended September 30, 2012
Net Loss Per Share:				
Numerator:				
Net loss attributable to Merrimack Pharmaceuticals, Inc.	$ (18,599)	$ (23,199)	$ (61,107)	$ (66,509)
Plus: Unaccreted dividends on convertible preferred stock	(2,062)	—	(5,728)	(2,107)
Net loss available to common stockholders—basic and diluted	(20,661)	(23,199)	(66,835)	(68,616)
Denominator:				
Weighted-average common shares—basic and diluted	11,389	93,724	11,292	65,487
Net loss per share available to common stockholders—basic and diluted	$ (1.81)	$ (0.25)	$ (5.92)	$ (1.05)

The following common stock equivalents of potentially dilutive securities have been excluded from the computation of diluted weighted average shares outstanding as of September 30, 2011 and 2012, as the Company recorded a net loss in all periods and, therefore, they would be anti-dilutive:

(in thousands)	As of September 30, 2011	As of September 30, 2012
Convertible preferred stock	66,256	—
Options to purchase common stock	17,522	19,812
Convertible preferred stock warrants	303	—
Common stock warrants	2,937	2,891

5. License and Collaboration Agreements

Sanofi

On September 30, 2009, the Company entered into a license and collaboration agreement with Sanofi for the development and commercialization of a drug candidate being developed by the Company under the name MM-121. The agreement became effective on November 10, 2009 and Sanofi paid the Company a nonrefundable, noncreditable upfront license fee of $60.0 million. During the third quarter of 2010 and the fourth quarter of 2011, the Company received a total of $20.0 million in milestone payments

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associated with dosing the first patients in Phase 2 clinical trials in breast cancer and non-small cell lung cancer. During the first quarter of 2012, the Company received an additional milestone payment of $5.0 million associated with dosing the first patient in a Phase 2 clinical trial in ovarian cancer. The Company is eligible to receive additional future development, regulatory and sales milestone payments as well as future royalty payments depending on the success of MM-121.

Under the agreement, Sanofi is responsible for all MM-121 development and manufacturing costs. The Company retained the right to participate in the development of MM-121 through Phase 2 proof of concept trials. The Company also has the right, but not the obligation, to co-promote MM-121 in the United States. Sanofi reimburses the Company for direct costs incurred in development and compensates the Company for its internal development efforts based on a full time equivalent ("FTE") rate. Also as part of the agreement, the Company was required to manufacture certain quantities of MM-121 and, at Sanofi's and the Company's option, may continue to manufacture additional quantities of MM-121 in the future. Sanofi reimburses the Company for direct costs incurred in manufacturing and compensates the Company for its internal manufacturing efforts based on an FTE rate. The Company satisfied its manufacturing obligations during 2010 and has elected to continue to manufacture quantities of MM-121.

The Company applied revenue recognition guidance to determine whether the performance obligations under this collaboration, including the license, the right to future technology, back-up compounds, participation on steering committees, development services and manufacturing services, could be accounted for separately or as a single unit of accounting. The Company determined that its development services performance obligation is considered a separate unit of accounting, as it is set at the Company's option, has stand-alone value and the FTE rate is considered fair value. Therefore, the Company recognizes cost reimbursements for MM-121 development services as incurred. The Company determined that the license, the right to future technology, back-up compounds, participation on steering committees and manufacturing services performance obligations represented a single unit of accounting. As the Company cannot reasonably estimate its level of effort over the collaboration, the Company recognizes revenue from the upfront payment, milestone payment and manufacturing services payments using the contingency-adjusted performance model over the expected development period, which is currently estimated to be 12 years from the effective date of the agreement. Under this model, when a milestone is earned or manufacturing services are rendered and product is delivered, revenue is immediately recognized on a pro-rata basis in the period the milestone was achieved or product was delivered based on the time elapsed from the effective date of the agreement. Thereafter, the remaining portion is recognized on a straight-line basis over the remaining development period.

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During the three and nine months ended September 30, 2011 and 2012, the Company recognized revenue based on the following components of the Sanofi agreement:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2011	2012	2011	2012
Upfront payment	$ 1,250	$ 1,250	$ 3,750	$ 3,750
Milestone payment	208	521	625	2,454
Development services	6,584	8,598	15,976	25,900
Manufacturing services and other	520	935	1,214	2,562
Total	$ 8,562	$ 11,304	$ 21,565	$ 34,666

As of December 31, 2011 and September 30, 2012, the Company maintained the following accounts receivable and deferred revenue related to the Sanofi agreement:

(in thousands)	December 31, 2011	September 30, 2012
Accounts receivable, billed	$ 4,478	$ 1,562
Accounts receivable, unbilled	2,925	4,471
Deferred revenue	84,466	82,522

PharmaEngine, Inc.

On May 5, 2011, the Company entered into an assignment, sublicense and collaboration agreement with PharmaEngine, Inc. ("PharmaEngine") under which the Company reacquired rights in Europe and certain countries in Asia to a drug being developed under the name MM-398. In exchange, the Company agreed to pay PharmaEngine a nonrefundable, noncreditable upfront payment of $10.0 million and will be required to make up to an aggregate of $80.0 million in development and regulatory milestone payments and $130.0 million in sales milestone payments upon the achievement of specified development, regulatory and annual net sales milestones. During the first quarter of 2012, the Company paid a milestone of $5.0 million under the collaboration agreement with PharmaEngine in connection with dosing the first patient in a Phase 3 clinical trial of MM-398 in pancreatic cancer. PharmaEngine is also entitled to tiered royalties on net sales of MM-398 in Europe and certain countries in Asia. The Company is responsible for all future development costs of MM-398 except those required specifically for regulatory approval in Taiwan. The Company determined that PharmaEngine is a variable interest entity based on an analysis of PharmaEngine's capitalization. However, the Company determined that the Company cannot control the activities of PharmaEngine, and therefore, the Company is not the primary beneficiary and should not consolidate the financial results of PharmaEngine.

During the three months ended September 30, 2011 and 2012, the Company recognized research and development expenses of $0.4 million and $0.3 million, respectively, and during the nine months ended September 30, 2011 and 2012, the Company recognized research and development expenses of $10.9 million and $5.8 million, respectively, related to the agreement with PharmaEngine. These amounts included a $5.0 million milestone payment recognized in the first quarter of 2012 and a $10.0 million upfront payment recognized in the second quarter of 2011.

6. Fair Value of Financial Instruments

The carrying amounts of cash and cash equivalents, available-for-sale securities, prepaid expenses, accounts receivable, accounts payable and accrued expenses and other short-term assets and liabilities approximate fair value due to the short-term nature of these instruments. Capital lease obligations and convertible preferred stock warrants are also carried at fair value.

Fair value is an exit price, representing the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. Fair value is determined based on observable and unobservable inputs. Observable inputs reflect readily obtainable

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data from independent sources, while unobservable inputs reflect certain market assumptions. As a basis for considering such assumptions, GAAP establishes a three-tier value hierarchy, which prioritizes the inputs used to develop the assumptions and for measuring fair value as follows: (Level 1) observable inputs such as quoted prices in active markets for identical assets; (Level 2) inputs other than the quoted prices in active markets that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value.

The following tables show assets and liabilities measured at fair value on a recurring basis as of December 31, 2011 and September 30, 2012 and the input categories associated with those assets and liabilities:

As of December 31, 2011 (in thousands)	Level 1	Level 2	Level 3
Assets:			
Cash equivalents — money market funds	$ 35,076	$ —	$ —
Liabilities:			
Convertible preferred stock warrants	—	—	1,516

As of September 30, 2012 (in thousands)	Level 1	Level 2	Level 3
Assets:			
Cash equivalents — money market funds	$ 25,197	$	$
Investments — U.S. government agencies securities		1,000	
Investments — corporate debt securities		57,759	

The Company’s investment portfolio consists of investments classified as cash equivalents and available-for-sale securities. All highly liquid investments with an original maturity of three months or less when purchased are considered to be cash equivalents. The Company’s cash and cash equivalents are invested in U.S. treasury and corporate debt securities that approximate their face value. All marketable securities with an original maturity when purchased of greater than three months are classified as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in other comprehensive income (loss). The amortized cost of securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. The fair value of the convertible preferred stock warrants as of December 31, 2011 was determined using the Black-Scholes option valuation model.

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The following table provides a roll-forward of the fair value of the convertible preferred stock warrants categorized as Level 3 instruments, for the nine months ended September 30, 2012:

(in thousands)	Convertible preferred stock warrants
Balance, December 31, 2011	$ 1,516
Unrealized gain included in other income (expense)	(587)
Reclassification to common stock warrants	(929)
Balance, September 30, 2012	$ —

7. Accrued Expenses and Other

Accrued expenses and other as of December 31, 2011 and September 30, 2012 consisted of the following:

(in thousands)	December 31, 2011	September 30, 2012
Goods and services	$ 9,189	$ 11,400
Payroll and related benefits	3,666	4,384
Contractual liability (Note 10)	—	975
Total accrued expenses and other	$ 12,855	$ 16,759

8. Common Stock

During the first quarter of 2012, the Company amended its certificate of incorporation to increase the number of authorized shares of common stock to 200.0 million shares of $0.01 par value common stock. As of December 31, 2011 and September 30, 2012, the Company had 138.5 million shares and 200.0 million shares, respectively, of $0.01 par value common stock authorized. There were 11,834,000 and 94,029,000 shares of common stock issued and outstanding as of December 31, 2011 and September 30, 2012, respectively. The shares reserved for future issuance as of December 31, 2011 and September 30, 2012 consisted of the following:

(in thousands)	December 31, 2011	September 30, 2012
Conversion of Series B, Series C, Series D, Series E, Series F and Series G convertible preferred stock	66,256	—
Convertible preferred stock warrants	302	—
Common stock warrants	2,640	2,891
Options to purchase common stock	17,617	19,812
	86,815	22,703

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9. Stock-Based Compensation

As of December 31, 2011, there were 830,000 shares of common stock available to be issued under the 2008 Stock Incentive Plan, as amended (the "2008 Plan"). The 2011 Stock Incentive Plan (the "2011 Plan") became effective upon closing of the Company's initial public offering in April 2012. Upon effectiveness of the 2011 Plan, no further awards were available to be issued under the 2008 Plan. The 2011 Plan is administered by the Board of Directors of the Company and permits the Company to grant incentive and non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units and other stock-based awards. The 2011 Plan increased the total number of shares of common stock available to be issued by 3.5 million.

During the nine months ended September 30, 2011 and 2012, the Company issued options to purchase 1.9 million and 3.2 million shares of common stock, respectively. These options generally vest over a three-year period for employees. Prior to the closing of the Company's initial public offering in April 2012, options previously granted to directors had vested immediately. After the closing of the Company's initial public offering in April 2012, options granted to directors vest over a one-year period. During the nine months ended September 30, 2011 and 2012, the Company also issued options to purchase 0.1 million shares of common stock to non-employees in each period. The assumptions used to estimate the fair value of options granted to non-employees at the date of grant were materially consistent with those used for employee and director grants.

The weighted-average assumptions used to estimate the fair value of employee and director options at the date of grant for the three and nine months ended September 30, 2011 and 2012 were as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2011	2012	2011	2012
Risk-free interest rate	1.6%	0.7-0.9%	1.6-2.5%	0.9-1.1%
Expected dividend yield	0%	0%	0%	0%
Expected term	5.9 years	5.3-5.9 years	5.0-5.9 years	5.3-5.9 years
Expected volatility	73%	66%-68%	73%	66-72%

The Company recognized stock-based compensation expense as follows for the three and nine months ended September 30, 2011 and 2012:

(in thousands)	Three months ended September 30,		Nine months ended September 30,	
	2011	2012	2011	2012
Employee awards:				
Research and development	$ 1,021	$ 1,119	$ 2,654	$ 2,972
General and administrative	405	681	2,453	1,544
Stock-based compensation for employee awards	1,426	1,800	5,107	4,516
Stock-based compensation for non-employee awards	363	383	466	416
Total stock-based compensation	$ 1,789	$ 2,183	$ 5,573	$ 4,932

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The following table summarizes stock option activity during the nine months ended September 30, 2012:

(in thousands, except per share amounts)	Number of shares	Weighted average exercise price	Aggregate intrinsic value
Outstanding, December 31, 2011	17,617	$ 2.56	$ 74,329
Granted	3,220	$ 7.46	
Exercised	(857)	$ 2.17	
Forfeited	(168)	$ 4.23	
Outstanding, September 30, 2012	19,812	$ 3.34	$ 119,270
Exercisable, September 30, 2012	14,692	$ 2.32	$ 103,676
Vested and expected to vest, September 30, 2012	19,414	$ 3.29	$ 118,313

The aggregate intrinsic value was calculated as the difference between the exercise price of the stock options and the fair value of the underlying common stock as of the respective balance sheet date.

10. Commitments and Contingencies

Operating leases

The Company leases its office, laboratory and manufacturing space under non-cancellable operating leases. Total rent expense under these operating leases was $0.8 million and $1.1million for the three months ended September 30, 2011 and 2012, respectively, and $2.3 million and $3.1 million for the nine months ended September 30, 2011 and 2012, respectively.

During March 2012, the Company entered into a facility lease amendment to further expand its office, laboratory and manufacturing space. The amendment leased additional space for a seven-year term effective March 2012. The aggregate additional rent due over the seven-year term of the lease amendment is approximately $2.7 million. As part of this amendment, the landlord agreed to reimburse the Company for a portion of tenant improvements made to the facility, up to a total of $0.5 million.

During August 2012, the Company entered into an Indenture of Lease (the "Amended Lease"), which amended and restated its facility lease, including all previous amendments. Under the Amended Lease, the Company retained its existing office, laboratory and manufacturing space at its existing facility and agreed to occupy approximately 23,000 square feet of additional space, for a total of 109,000 square feet (the "Leased Space"), all of which is leased until June 30, 2019. The aggregate minimum lease payments due over the seven-year term of the Amended Lease is approximately $31.5 million. As part of the Amended Lease, the landlord agreed to reimburse the Company for a portion of tenant improvements made to the facility, up to approximately $6.6 million, with approximately $4.6 million reimbursable in 2012 and $1.0 million reimbursable in each of 2013 and 2014. As a result, the Company recorded amounts receivable from the landlord of $5.6 million in prepaid expenses and other current assets and $1.0 million in other non-current assets, with a corresponding and offsetting entry recorded to deferred

lease benefits. Tenant improvements recorded in deferred lease benefits are amortized over the term of the lease as reductions to rent expense. The Amended Lease expires on June 30, 2019. The Company retains an option to renew the Amended Lease with respect to all of the Leased Space for an additional period of either one or five years.

Contingencies

Contractual matter

The Company manufactures MM-121 under a license and collaboration agreement with Sanofi. Under this agreement, Sanofi reimburses the Company for direct costs incurred in manufacturing. During 2009 and 2010, the Company utilized a third party contractor to perform fill-finish manufacturing services. This third party contractor experienced U.S. Food and Drug Administration ("FDA") inspection issues with its quality control process that resulted in a formal warning letter from the FDA. Following a review by Sanofi and the Company, some MM-121 was pulled from clinical trial sites and replaced with MM-121 that was filled by a different contractor. Sanofi had requested that the Company assume financial responsibility for the MM-121 material that was pulled from clinical trial sites. The Company and Sanofi have since agreed that, beginning in April 2012 and throughout 2013, the Company will reimburse Sanofi approximately $1.2 million of previously billed amounts. The Company's revenue recognition model for manufacturing services performed under the license and collaboration agreement with Sanofi is to recognize these services over the period of performance, which is currently estimated to be 12 years from the effective date of the agreement. Removal of these previously billed amounts from the revenue recognition model and establishing this contractual liability resulted in an earnings reduction of $0.2 million for the three months ended March 31, 2012 in the accompanying condensed consolidated statement of comprehensive income (loss).

11. Related Party Transactions

In connection with the initial public offering of the Company's common stock, Sanofi purchased 5,217,391 shares of the Company's common stock in April 2012.

In June 2012, the Company entered into a Right of Review Agreement (the "Agreement") with Sanofi pursuant to which, if the Company determines to enter into negotiations with a third party regarding any license, option, collaboration, joint venture or similar transaction involving any therapeutic or companion diagnostic product candidate in the Company's pipeline (an "Opportunity"), the Company will notify Sanofi of such Opportunity. Following such notice, Sanofi will have a specified period of time to determine whether to exercise an additional right to exclusively negotiate an agreement with the Company with respect to such Opportunity for a specified period of time. The Agreement terminates on April 1, 2017.

12. Subsequent Events

On November 8, 2012, the Company entered into the Loan Agreement with Hercules pursuant to which a term loan of up to an aggregate principal amount of $40.0 million is available to the Company. The Loan Agreement provides for an initial term loan advance of $25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to $15.0 million, which is available at any time through December 15, 2012 upon the Company's request. The term loan bears interest at an annual rate equal to the greater of 10.55% and 10.55% plus the prime rate of interest minus 5.25%, but may not exceed 12.55%. The Loan Agreement provides for interest-only payments for twelve months and repayment of the aggregate outstanding principal balance of the loan in monthly installments starting on December 1, 2013 and continuing through May 1, 2016. If the Company receives aggregate gross

proceeds of at least $75 million in one or more transactions prior to December 1, 2013, including pursuant to a financing or collaboration, the Company may elect to extend the interest-only period by six months so that the aggregate outstanding principal balance of the loan would be repaid in monthly installments starting on June 1, 2014 and continuing through November 1, 2016. In addition, the Company paid a fee of $0.3 million upon closing and is required to pay a fee of $1.2 million at maturity. At the Company's option, the Company may elect to prepay all or any part of the outstanding term loan without penalty. In connection with the Loan Agreement, the Company granted Hercules a security interest in all of the Company's personal property now owned or hereafter acquired, excluding intellectual property but including the proceeds from the sale, if any, of intellectual property, and a negative pledge on intellectual property. The Loan Agreement also contains certain representations, warranties and non-financial covenants of the Company. In addition, the Loan Agreement grants Hercules an option to purchase up to an aggregate of $1.0 million of the Company's equity securities sold to institutional accredited investors in a private financing within one year after the closing of the Loan Agreement upon the same terms and conditions afforded to such investors. The Company received net proceeds of $24.7 million from the initial term loan advance on November 8, 2012.

During the fourth quarter of 2012, the Company triggered a $0.6 million payment to a collaborator associated with a preclinical program.

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

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and the notes to those financial statements appearing elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and notes thereto and management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2011 included in our Annual Report on Form 10-K. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth in Part II, Item 1A. Risk Factors of this Quarterly Report on Form 10-Q, which are incorporated herein by reference, our actual results may differ materially from those anticipated in these forward-looking statements.

Overview

We are a biopharmaceutical company discovering, developing and preparing to commercialize innovative medicines consisting of novel therapeutics paired with companion diagnostics. Our mission is to provide patients, physicians and the healthcare system with the medicines, tools and information to transform the approach to care from one based on the identification and treatment of symptoms to one focused on the diagnosis and treatment of illness through a more precise mechanistic understanding of disease. We seek to accomplish our mission by applying our proprietary systems-based approach to biomedical research, which we call Network Biology. Our initial focus is in the field of oncology. We have five programs in clinical development. In our most advanced program, we are conducting a Phase 3 clinical trial.

We have devoted substantially all of our resources to our drug discovery and development efforts, including advancing our Network Biology approach, conducting clinical trials for our product candidates, protecting our intellectual property and providing general and administrative support for these operations. We have not generated any revenue from product sales and, to date, have financed our operations primarily through private placements of our convertible preferred stock, collaborations, an initial public offering of our common stock, a secured debt financing and, to a lesser extent, through government grants and the monetization of tax credits. Through September 30, 2012, we have received $268.2 million from

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the sale of convertible preferred stock and warrants, $98.1 million of net proceeds from the sale of common stock during our April 2012 initial public offering, or IPO, and $168.2 million of upfront license fees, milestone payments, reimbursement of development and manufacturing services and other payments from our collaborations. As of September 30, 2012, we had unrestricted cash and cash equivalents and available-for-sale securities of $86.7 million.

In April 2012, we closed our IPO pursuant to a registration statement on Form S-1, as amended. We sold an aggregate of 15,042,459 shares of common stock under the registration statement at a public offering price of $7.00 per share, including 742,459 shares pursuant to the exercise by the underwriters of an over-allotment option. Net proceeds were approximately $98.1 million, after deducting underwriting discounts and commissions and other offering expenses but prior to the payment of dividends on our Series B convertible preferred stock. At the time of our IPO, our convertible preferred stock and warrants to purchase convertible preferred stock automatically converted to common stock and warrants to purchase common stock.

On November 8, 2012, we entered into a Loan and Security Agreement, or Loan Agreement, with Hercules Technology Growth Capital, Inc., or Hercules, pursuant to which a term loan of up to an aggregate principal amount of $40.0 million is available to us. The Loan Agreement provides for an initial term loan advance of $25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to $15.0 million, which is available at any time through December 15, 2012 upon our request. We expect our existing unrestricted cash and cash equivalents and available-for-sale securities on hand as of September 30, 2012, plus the $40.0 million term loan made available under the Loan Agreement, to be sufficient to fund operations into 2014.

We have never been profitable and, as of September 30, 2012, we had an accumulated deficit of $417.3 million. Our net loss was $23.3 million and $66.9 million for the three and nine months ended September 30, 2012, respectively, and $18.7 million and $61.5 million for the three and nine months ended September 30, 2011, respectively. We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. We expect our research and development expenses to increase in connection with our ongoing activities, particularly as we continue the research, development and clinical trials of our product candidates, including multiple simultaneous clinical trials for certain product candidates, some of which we expect will be entering late stage clinical development. In addition, in connection with seeking and possibly obtaining regulatory approval of any of our product candidates, we expect to incur significant commercialization expenses for product sales, marketing, manufacturing and distribution. Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. We may be unable to raise capital when needed or on attractive terms, which would force us to delay, limit, reduce or terminate our research and development programs or commercialization efforts. We will need to generate significant revenues to achieve profitability, and we may never do so.

We are also considering arrangements to use our manufacturing capabilities to manufacture drug product on behalf of third party pharmaceutical companies. We have no current agreements or commitments for any such arrangements.

Strategic Partnerships, Licenses and Collaborations

Sanofi

In September 2009, we entered into a license and collaboration agreement with Sanofi for the development and commercialization of MM-121. Under this agreement, we granted Sanofi an exclusive, royalty-bearing, worldwide right and license to develop and commercialize MM-121 in exchange for payment by Sanofi of an upfront license fee of $60.0 million, up to $410.0 million in potential development and regulatory milestone payments, of which we have already received $25.0 million, up to $60.0 million in potential sales milestone payments, and tiered, escalating royalties beginning in the sub-teen double digits based on net sales of MM-121 in the United States and beginning in the high single digits based on net sales of MM-121 outside the United States. We have the right, but not the obligation, to co-promote and commercialize MM-121 in the United States and to participate in the development of MM-121 through Phase 2 proof of concept trials, which we are currently conducting. If we co-promote MM-121 in the United States, we will be responsible for paying our sales force costs and a specified percentage of direct medical affairs, marketing and promotion costs for MM-121 in the United States and will be eligible to receive tiered, escalating royalties beginning in the high teens based on net sales of MM-121 in the United States. We are also entitled to an increase in the royalty rate if a diagnostic product is actually used with MM-121 in the treatment of solid tumor indications. Sanofi is responsible for all development and manufacturing costs for MM-121. Although Sanofi will ultimately be responsible for manufacturing MM-121 under the agreement, we are currently manufacturing MM-121 for use in ongoing clinical trials. Sanofi has assumed responsibility for all manufacturing of MM-121 for Phase 3 clinical trials. Sanofi reimburses us for internal time at a designated full-time equivalent rate per year and reimburses us for direct costs and services related to the development and manufacturing of MM-121.

In June 2012, we entered into a right of review agreement with Sanofi pursuant to which, if we determine to enter into negotiations with a third party regarding any license, option, collaboration, joint venture or similar transaction involving any therapeutic or companion diagnostic product candidate in our pipeline, we will notify Sanofi of such opportunity. Following such notice, Sanofi will have a specified period of time to review the opportunity and determine whether to exercise an additional right to exclusively negotiate an agreement with us with respect to such opportunity for a specified period of time. The right of review terminates on April 1, 2017.

The timing of cash received from Sanofi differs from revenue recognized for financial statement purposes. We recognize revenue for development services as incurred and recognize revenue for the upfront payment, milestone payments and manufacturing services using the contingency-adjusted performance model over the expected development period, which is currently estimated to be 12 years from the effective date of our agreement with Sanofi. During the three and nine months ended September 30, 2011 and 2012, we recognized revenue based on the following components of the Sanofi agreement:

	Three months ended September 30,		Nine months ended September 30,	
(in thousands)	2011	2012	2011	2012
Upfront payment	$ 1,250	$ 1,250	$ 3,750	$ 3,750
Milestone payment	208	521	625	2,454
Development services	6,584	8,598	15,976	25,900
Manufacturing services and other	520	935	1,214	2,562
Total	$ 8,562	$ 11,304	$ 21,565	$ 34,666

Financial Obligations Related to the License and Development of MM-398

In September 2005, Hermes BioSciences, Inc., or Hermes, which we acquired in October 2009, entered into a license agreement with PharmaEngine, Inc., or PharmaEngine, under which PharmaEngine received an exclusive license to research, develop, manufacture and commercialize MM-398 in Europe and certain countries in Asia. In May 2011, we entered into a new agreement with PharmaEngine under which we reacquired all previously licensed rights for MM-398, other than rights to commercialize MM-398 in Taiwan. As a result, we now have the exclusive right to commercialize MM-398 in all territories in the world, except for Taiwan, where PharmaEngine has an exclusive commercialization right. Upon entering into the May 2011 agreement with PharmaEngine, we paid PharmaEngine a $10.0 million upfront license fee. In addition, we made a milestone payment of $5.0 million to PharmaEngine during the first quarter of 2012 in connection with dosing the first patient in our Phase 3 clinical trial of MM-398. We may be required to make up to an aggregate of $75.0 million in additional development and regulatory milestone payments and $130.0 million in additional sales milestone payments to PharmaEngine upon the achievement of specified development, regulatory and annual net sales milestones. PharmaEngine is also entitled to tiered royalties on net sales of MM-398 in Europe and certain countries in Asia. The royalty rates under the agreement range from high single digits up to the low teens as a percentage of our net sales of MM-398 in these territories. Under the May 2011 agreement, we are responsible for all future development costs of MM-398 except those required specifically for regulatory approval in Taiwan. During the three months ended September 30, 2011 and 2012, we recognized research and development expense of $0.4 million and $0.3 million, respectively, and during the nine months ended September 30, 2011 and 2012, we recognized research and development expense of $10.9 million and $5.8 million, respectively, under the May 2011 agreement with PharmaEngine.

Financial Operations Overview

Revenues

We have not yet generated any revenue from product sales. All of our revenue to date has been derived from license fees, milestone payments, development and manufacturing services, and other payments received from collaborations, primarily with Sanofi, and grant payments received from the National Cancer Institute. In the future, we may generate revenue from a combination of product sales, license fees, milestone payments and research, development and manufacturing payments from collaborations and royalties from the sales of products developed under licenses of our intellectual property. We expect that any revenue we generate will fluctuate from quarter to quarter as a result of the timing and amount of license fees, research, development and manufacturing reimbursements, milestone and other payments from collaborations, and the amount and timing of payments that we receive upon the sale of our products, to the extent any are successfully commercialized. We do not expect to generate revenue from product sales until 2014, at the earliest. If we or our collaborators fail to complete the development of our product candidates in a timely manner or to obtain regulatory approval for them, our ability to generate future revenue, and our results of operations and financial position, would be materially adversely affected.

Research and development expense

The following table summarizes our principal product development programs, including the related stages of development for each product candidate in development and the research and development expenses allocated to each clinical product candidate. Prior to May 2011, our collaborator, PharmaEngine, led the clinical development of MM-398 with minimal investment by us.

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(in thousands)	Indication	Current stage of development	Three months ended September 30, 2011	Three months ended September 30, 2012	Nine months ended September 30, 2011	Nine months ended September 30, 2012
MM-398	Cancer	Phase 3	$ 2,226	$ 6,107	$ 15,196	$ 17,478
MM-121	Cancer	Phase 2	9,430	8,694	20,671	26,126
MM-111	Cancer	Phase 1/Phase 2 planned	2,554	3,688	7,425	9,133
MM-302	Cancer	Phase 1	1,157	1,874	3,867	5,701
MM-151	Cancer	Phase 1	2,248	1,357	8,568	5,587
Preclinical, general research and discovery			5,277	8,046	14,720	24,297
Stock compensation			1,021	1,119	2,654	2,972
Total research and development expense			$ 23,913	$ 30,885	$ 73,101	$ 91,294

MM-398

MM-398 is currently being evaluated in a Phase 3 clinical trial in metastatic pancreatic cancer following progression on gemcitabine-containing regimens. During the second quarter of 2012, we amended the trial design for our Phase 3 clinical trial. Our current estimate of the remaining external costs associated with completing the Phase 3 clinical trial is between $20.0 million and $25.0 million. In addition, several investigator sponsored trials are ongoing in which the majority of the total clinical trial costs are paid for by the investigators. Investigator sponsored trials include a Phase 2 clinical trial in colorectal cancer and a Phase 1 clinical trial in glioma.

In May 2011, we made an upfront license payment of $10.0 million to PharmaEngine. In the first quarter of 2012, we made a milestone payment of $5.0 million to PharmaEngine in connection with dosing the first patient in our Phase 3 trial. We may be required to make up to an aggregate of $75.0 million in additional development and regulatory milestone payments and $130.0 million in additional sales milestone payments to PharmaEngine upon the achievement of specified development, regulatory and annual net sales milestones. PharmaEngine is also entitled to tiered royalties based on net sales of MM-398 in Europe and certain countries in Asia. The royalty rates range from high single digits up to the low teens as a percentage of our net sales of MM-398 in these territories.

MM-121

We have entered into a license and collaboration agreement with Sanofi related to MM-121. Under the terms of the agreement, we are currently responsible for executing clinical trials through Phase 2 proof of concept trials for each indication. Although Sanofi will ultimately be responsible for manufacturing MM-121 under the license and collaboration agreement, we are currently manufacturing MM-121 for use in ongoing clinical trials. Sanofi has assumed responsibility for all manufacturing of MM-121 for Phase 3 clinical trials. All expenses related to manufacturing are required to be reimbursed by Sanofi. Sanofi pays a portion of the estimated manufacturing campaign costs upfront and the remainder during and upon completion of the manufacturing campaign in accordance with an agreed upon

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budget. We separately record revenue and expenses on a gross basis under this arrangement. Sanofi is responsible for all development and manufacturing costs of MM-121. We are currently conducting three Phase 2 clinical trials, one Phase 1/2 clinical trial and three Phase 1 clinical trials of MM-121 in multiple cancer types. During the third quarter of 2010, we received a $10.0 million milestone payment from Sanofi for dosing the first patient in a proof of concept Phase 2 clinical trial of MM-121 in breast cancer. During the fourth quarter of 2011, we received a $10.0 million milestone payment from Sanofi for dosing the first patient in a proof of concept Phase 2 clinical trial of MM-121 in non-small cell lung cancer. During the first quarter of 2012, we received a $5.0 million milestone payment from Sanofi for dosing the first patient in a proof of concept Phase 2 clinical trial of MM-121 in ovarian cancer.

MM-111

We are currently conducting two Phase 1 clinical trials of MM-111 in multiple cancer types.

MM-302

We are currently conducting one Phase 1 clinical trial of MM-302 in breast cancer.

MM-151

We are currently conducting one Phase 1 clinical trial of MM-151 in solid tumors. During the first quarter of 2012, we made a $1.5 million payment under our collaboration agreement with Adimab LLC.

General and administrative expense

General and administrative expense consists primarily of salaries and other related costs for personnel, including stock-based compensation expenses and benefits, in our executive, legal, intellectual property, business development, finance, purchasing, accounting, information technology, corporate communications, investor relations and human resources departments. Other general and administrative expenses include employee training and development, board of directors costs, depreciation, insurance expenses, facility-related costs not otherwise included in research and development expense, professional fees for legal services, including patent-related expenses, pre-commercialization costs, and accounting and information technology services. We expect that general and administrative expense will increase in future periods in proportion to increases in research and development and as a result of increased payroll, expanded infrastructure, increased consulting, legal, accounting and investor relations expenses associated with being a public company and costs incurred to develop and commercialize our clinical products.

Other income (expense)

Other income (expense) primarily consists of gains and losses on the change in value and time to expiration of convertible preferred stock warrants, the recognition of federal and state sponsored tax incentives and other one-time income or expense-related items.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our unaudited interim condensed consolidated financial statements, which we have prepared in accordance with the rules and regulations of the Securities and Exchange Commission, or the SEC, and generally accepted accounting principles in the United States for condensed consolidated information.

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The preparation of these interim condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. Estimates include revenue recognition, lease accounting, useful lives with respect to long-lived assets and intangibles, valuation of stock options, convertible preferred stock warrants, contingencies, accrued expenses and other, intangible assets, goodwill, in-process research and development and tax valuation reserves. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

Revenue recognition

We enter into biopharmaceutical product development agreements with collaborators for the research and development of therapeutic and diagnostic products. The terms of these agreements may include nonrefundable signing and licensing fees, funding for research, development and manufacturing, milestone payments and royalties on any product sales derived from collaborations. We assess these multiple elements in accordance with the Financial Accounting Standards Board Accounting Standards Codification 605, *Revenue Recognition*, in order to determine whether particular components of the arrangement represent separate units of accounting.

In January 2011, we adopted new authoritative guidance on revenue recognition for multiple element arrangements. This guidance, which applies to multiple element arrangements entered into or materially modified on or after January 1, 2011, amends the criteria for separating and allocating consideration in a multiple element arrangement by modifying the fair value requirements for revenue recognition and eliminating the use of the residual method. The fair value of deliverables under the arrangement may be derived using a best estimate of selling price if vendor specific objective evidence and third-party evidence are not available.

Deliverables under the arrangement will be separate units of accounting provided that a delivered item has value to the customer on a stand-alone basis and if the arrangement does not include a general right of return relative to the delivered item and delivery or performance of the undelivered item is considered probable and substantially in the control of the vendor. We also adopted guidance that permits the recognition of revenue contingent upon the achievement of a milestone in its entirety, in the period in which the milestone is achieved, only if the milestone meets certain criteria and is considered to be substantive. We did not enter into any significant multiple element arrangements or materially modify any of our existing multiple element arrangements during the year ended December 31, 2011 or the nine months ended September 30, 2012. Our existing collaboration agreements continue to be accounted for under previously issued revenue recognition guidance for multiple element arrangements and milestone revenue recognition, as described below.

We recognized upfront license payments as revenue upon delivery of the license only if the license had stand-alone value and the fair value of the undelivered performance obligations could be determined. If the fair value of the undelivered performance obligations could be determined, such obligations were accounted for separately as the obligations were fulfilled. If the license was considered to either not have stand-alone value or have stand-alone value but the fair value of any of the undelivered performance obligations could not be determined, the arrangement was accounted for as a single unit of accounting and the license payments and payments for performance obligations were recognized as revenue over the estimated period of when the performance obligations would be performed.

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Whenever we determined that an arrangement should be accounted for as a single unit of accounting, we determined the period over which the performance obligations would be performed and revenue would be recognized. If we could not reasonably estimate the timing and the level of effort to complete our performance obligations under the arrangement, then we recognized revenue under the arrangement on a straight-line basis over the period that we expected to complete our performance obligations, which is reassessed at each subsequent reporting period.

Our collaboration agreements may include additional payments upon the achievement of performance-based milestones. As milestones are achieved, a portion of the milestone payment, equal to the percentage of the total time that we have performed the performance obligations to date over the total estimated time to complete the performance obligations, multiplied by the amount of the milestone payment, is recognized as revenue upon achievement of such milestone. The remaining portion of the milestone will be recognized over the remaining performance period. Milestones that are tied to regulatory approval are not considered probable of being achieved until such approval is received. Milestones tied to counterparty performance are not included in our revenue model until the performance conditions are met. To date, we have not received any royalty payments or recognized any royalty revenue. We will recognize royalty revenue upon the sale of the related products, provided we have no remaining performance obligations under the arrangement.

We record deferred revenue when payments are received in advance of the culmination of the earnings process. This revenue is recognized in future periods when the applicable revenue recognition criteria have been met.

Contractual matter

We manufacture MM-121 under a license and collaboration agreement with Sanofi. Under this agreement, Sanofi reimburses us for direct costs incurred in manufacturing. During 2009 and 2010, we utilized a third party contractor to perform fill-finish manufacturing services. This third party contractor experienced U.S. Food and Drug Administration, or FDA, inspection issues with its quality control process that resulted in a formal warning letter from the FDA. Following a review by Sanofi and us, some MM-121 was pulled from clinical trial sites and replaced with MM-121 that was filled by a different contractor. Sanofi had requested that we assume financial responsibility for the MM-121 material that was pulled from clinical trial sites. We and Sanofi have since agreed that, beginning in April 2012 and throughout 2013, we will reimburse Sanofi approximately $1.2 million of previously billed amounts. Our revenue recognition model for manufacturing services performed under the license and collaboration agreement with Sanofi is to recognize these services over the period of performance, which is currently estimated to be 12 years from the effective date of the agreement. Removal of these previously billed amounts from our revenue recognition model and establishing this contractual liability resulted in an earnings reduction of $0.2 million for the three months ended March 31, 2012.

JOBS Act

On April 5, 2012, the Jumpstart Our Business Startups Act, or the JOBS Act, was enacted. Among other provisions, the JOBS Act provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to delay such adoption of new or revised accounting standards, and as a result, we may not comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for public companies that are not

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emerging growth companies. Additionally, we are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements provided by the JOBS Act.

Subject to certain conditions set forth in the JOBS Act, as an emerging growth company, we intend to rely on certain of these exemptions, including not being required to provide an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 and comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements. We may remain an emerging growth company for up to five years, until December 31, 2017, although if the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of any June 30 before that time or if we have annual gross revenues of $1.0 billion or more in any fiscal year, we would cease to be an emerging growth company as of December 31 of the applicable year.

Results of Operations

Comparison of the three months ended September 30, 2011 and 2012

	Three months ended September 30,	
(in thousands)	**2011**	**2012**
Collaboration revenues	$ 8,582	$ 11,323
Research and development expenses	23,913	30,885
General and administrative expenses	3,306	4,312
Loss from operations	(18,637)	(23,874)
Interest income	8	64
Interest expense	(2)	—
Other income	(93)	490
Net loss	$ (18,724)	$ (23,320)

Collaboration revenues

Collaboration revenues for the three months ended September 30, 2012 were $11.3 million, compared to $8.6 million for the three months ended September 30, 2011, an increase of $2.7 million, or 31%. This increase resulted from increases in development services, milestone and manufacturing revenues recognized under the license and collaboration agreement with Sanofi.

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Research and development expenses

Research and development expenses for the three months ended September 30, 2012 were $30.9 million, compared to $23.9 million for the three months ended September 30, 2011, an increase of $7.0 million, or 29%. This increase was primarily attributable to:

- $3.9 million of increased MM-398 spending primarily due to increased costs associated with our ongoing Phase 3 clinical trial;
- $2.8 million of increased spending on preclinical, general research and discovery due to an increased number of preclinical programs in our pipeline and increased costs associated with each preclinical program as these programs approach clinical development, including increased costs of $0.8 million due to IND-enabling activities for MM-141;
- $1.1 million of increased MM-111 spending due to the timing of clinical trial activities; and
- $0.7 million of increased MM-302 spending due to increased preclinical and clinical costs.

These increases were partially offset by the following decreases:

- $0.7 million of decreased MM-121 spending primarily due to the timing of manufacturing activities; and
- $0.9 million of decreased MM-151 spending primarily due to the absence of IND-enabling activities that occurred in 2011.

General and administrative expenses

General and administrative expenses for the three months ended September 30, 2012 were $4.3 million, compared to $3.3 million for the three months ended September 30, 2011, an increase of $1.0 million, or 30%. This increase was primarily attributable to increased labor and labor-related costs, including increased stock compensation expense of $0.3 million, increased rent, insurance and pre-commercialization costs.

Comparison of the nine months ended September 30, 2011 and 2012

	Nine months ended September 30,	
(in thousands)	**2011**	**2012**
Collaboration revenues	$ 21,638	$ 34,730
Research and development expenses	73,101	91,294
General and administrative expenses	11,239	11,650
Loss from operations	(62,702)	(68,214)
Interest income	51	127
Interest expense	(12)	—
Other income	1,208	1,226
Net loss	$ (61,455)	$ (66,861)

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Collaboration revenues

Collaboration revenues for the nine months ended September 30, 2012 were $34.7 million, compared to $21.6 million for the nine months ended September 30, 2011, an increase of $13.1 million, or 61%. This increase resulted from increases in development services, milestone and manufacturing revenues recognized under the license and collaboration agreement with Sanofi.

Research and development expenses

Research and development expenses for the nine months ended September 30, 2012 were $91.3 million, compared to $73.1 million for the nine months ended September 30, 2011, an increase of $18.2 million, or 25%. This increase was primarily attributable to:

- $9.6 million of increased spending on preclinical, general research and discovery due to an increased number of preclinical programs in our pipeline and increased costs associated with each preclinical program as these programs approach clinical development, including increased costs of $4.1 million due to IND-enabling activities for MM-141, and increased expense due to the timing of material and supply purchases;
- $5.5 million of increased MM-121 spending due to increased spending on ongoing clinical trials;
- $2.3 million of increased MM-398 spending due to $12.3 million of increased costs primarily attributable to our ongoing Phase 3 clinical trial, partially offset by the absence of a $10.0 million license payment made to PharmaEngine in 2011;
- $1.8 million of increased MM-302 spending due to an increase in preclinical and clinical costs; and
- $1.7 million of increased MM-111 spending due to an increase in clinical trial activities.

These increases were partially offset by $3.0 million of decreased MM-151 spending primarily due to the absence of IND-enabling activities that occurred in 2011, partially offset by an increase of $0.3 million in payments made to collaborators and increased costs associated with a Phase 1 clinical study which occurred in 2012.

General and administrative expenses

General and administrative expenses for the nine months ended September 30, 2012 were $11.7 million, compared to $11.2 million for the nine months ended September 30, 2011, an increase of $0.5 million, or 4%. This increase was primarily attributable to increases in labor and labor-related costs, rent, insurance and pre-commercialization costs, partially offset by decreased depreciation expense.

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Other income

Other income for the nine months ended September 30, 2011 was $1.2 million, which was comprised of a $1.8 million cash settlement from a former service provider and $0.2 million of recognized income related to the amortization of Massachusetts Life Sciences Center, or MLSC, tax incentives, partially offset by $0.7 million expense from the remeasurement of fair value of our convertible preferred stock warrants. Other income for the nine months ended September 30, 2012 was $1.2 million, which was comprised of $0.6 million of income from the remeasurement of fair value of our convertible preferred stock warrants and $0.6 million related to the amortization of MLSC tax incentives.

Liquidity and Capital Resources

Sources of liquidity

We have financed our operations to date primarily through private placements of our convertible preferred stock, collaborations, an IPO, a secured debt financing, and, to a lesser extent, through government grants and the monetization of tax credits. Through September 30, 2012, we have received $268.2 million from the sale of convertible preferred stock and warrants, $98.1 million of net proceeds from the sale of common stock during our IPO and $168.2 million of upfront license fees, milestone payments, reimbursement of development and manufacturing services and other payments from our collaborations. As of September 30, 2012, we had unrestricted cash and cash equivalents and available-for-sale securities of $86.7 million.

In April 2012, we closed our IPO pursuant to a registration statement on Form S-1, as amended. We sold an aggregate of 15,042,459 shares of common stock under the registration statement at a public offering price of $7.00 per share, including 742,459 shares pursuant to the exercise by the underwriters of an over-allotment option. Net proceeds were approximately $98.1 million, after deducting underwriting discounts and commissions and other offering expenses but prior to the payment of dividends on our Series B convertible preferred stock. At the time of our IPO, our convertible preferred stock and warrants to purchase convertible preferred stock automatically converted to common stock and warrants to purchase common stock.

On November 8, 2012, we entered into a Loan Agreement with Hercules pursuant to which a term loan of up to an aggregate principal amount of $40.0 million is available to us. The Loan Agreement provides for an initial term loan advance of $25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to $15.0 million, which is available at any time through December 15, 2012 upon our request. We expect our existing unrestricted cash and cash equivalents and available-for-sale securities on hand as of September 30, 2012, plus the $40.0 million term loan made available under the Loan Agreement, to be sufficient to fund operations into 2014.

As of September 30, 2012, within our unrestricted cash and cash equivalents and available-for-sale securities, there was $0.8 million related to the cash and cash equivalents held by our majority owned subsidiary Silver Creek Pharmaceuticals, Inc., or Silver Creek, which is consolidated for financial reporting purposes. This $0.8 million is designated for the operations of Silver Creek.

We made a $1.5 million payment under our collaboration agreement with Adimab LLC and an antibody discovery related payment of $0.4 million during the first quarter of 2012. Also during the first quarter of 2012, we received a $5.0 million milestone payment from Sanofi for dosing the first patient in a proof of concept Phase 2 clinical trial of MM-121 in ovarian cancer.

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Cash flows

The following table provides information regarding our cash flows for the nine months ended September 30, 2011 and 2012.

(in thousands)	Nine months ended September 30, 2011	2012
Cash used in operating activities	$ (46,362)	$ (60,382)
Cash used in investing activities	(2,460)	(59,849)
Cash provided by financing activities	77,341	97,686
Net increase (decrease) in cash and cash equivalents	$ 28,519	$ (22,545)

Operating activities

Cash used in operating activities of $46.4 million during the nine months ended September 30, 2011 was primarily a result of our $61.5 million net loss, partially offset by non-cash items of $9.8 million and changes in operating assets and liabilities of $5.3 million. Cash used in operating activities of $60.4 million during the nine months ended September 30, 2012 was primarily a result of our net loss of $66.9 million and changes in operating assets and liabilities of $0.8 million, which includes receipt of a $5.0 million milestone payment under our license and collaboration agreement with Sanofi, partially offset by non-cash items of $7.3 million.

Investing activities

Cash used in investing activities during the nine months ended September 30, 2011 was primarily due to the purchase of property and equipment. Cash used in investing activities during the nine months ended September 30, 2012 was primarily due to the purchase of marketable securities of $73.8 million, which was partially offset by maturities of marketable securities of $15.5 million, as well as $1.4 million related to the purchase of property and equipment and other investing activities.

Financing activities

Cash provided by financing activities of $77.3 million for the nine months ended September 30, 2011 was primarily a result of proceeds of $76.9 million received for our Series G convertible preferred stock financing, net of offering costs. Cash provided by financing activities of $97.7 million during the nine months ended September 30, 2012 was primarily a result of $100.0 million from our IPO, net of offering costs, which closed in April 2012, partially offset by $4.2 million in payments on our Series B convertible preferred stock dividends.

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Funding requirements

As of September 30, 2012, we had unrestricted cash and cash equivalents and available-for-sale securities of $86.7 million.

We have not completed development of any therapeutic products or companion diagnostics. We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. We anticipate that our expenses will increase substantially as we:

- initiate or continue clinical trials of our five most advanced product candidates;
- continue the research and development of our other product candidates;
- seek to discover additional product candidates;
- seek regulatory approvals for our product candidates that successfully complete clinical trials;
- establish a sales, marketing and distribution infrastructure and scale up manufacturing capabilities to commercialize products for which we may obtain regulatory approval; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned commercialization efforts.

We expect that our existing cash and cash equivalents and available-for-sale securities on hand, anticipated interest income, and anticipated milestone payments and research and development and manufacturing funding under our license and collaboration agreement with Sanofi related to MM-121, plus the $40.0 million term loan made available under the Loan Agreement with Hercules, will enable us to fund our operating expenses and capital expenditure requirements into 2014. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, and the extent to which we enter into collaborations with third parties to participate in their development and commercialization, we are unable to estimate the amounts of increased capital outlays and operating expenditures associated with our current and anticipated clinical trials. Our future capital requirements will depend on many factors, including:

- the progress and results of the clinical trials of our five most advanced product candidates;
- the success of our collaborations with Sanofi related to MM-121 and with PharmaEngine related to MM-398;
- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of commercialization activities, including product sales, marketing, manufacturing and distribution;

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- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims;
- the extent to which we acquire or invest in businesses, products and technologies; and
- our ability to establish and maintain additional collaborations on favorable terms, particularly marketing and distribution arrangements for oncology product candidates outside the United States and Europe.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. We do not have any committed external sources of funds, other than our collaboration with Sanofi for the development and commercialization of MM-121, which is terminable by Sanofi for convenience upon 180 days' prior written notice, and the remaining term loan advance available under our Loan Agreement with Hercules. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital

expenditures or declaring dividends. For example, if we raise additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual obligations and commitments

On April 3, 2012, upon the closing of our IPO, we became required to pay the former holders of Series B convertible preferred stock cash dividends of approximately $4.3 million. As of September 30, 2012, we had made dividend payments of approximately $4.2 million.

During the third quarter of 2012, we entered into an amended and restated lease, which further expanded our office, laboratory and manufacturing space and extended the lease term until June 2019. The aggregate rent due over the seven-year term of the amended and restated lease is approximately $31.5 million.

We and Sanofi have agreed that, beginning in 2012 and throughout 2013, we will reimburse Sanofi approximately $1.2 million of previously billed amounts. As of September 30, 2012, approximately $0.2 million of this amount had been reimbursed.

Under a collaboration agreement, we will be required to make payments of $0.6 million during the fourth quarter of 2012 and $0.8 million within the next twelve months related to a preclinical program.

On November 8, 2012, we entered into a Loan Agreement with Hercules pursuant to which a term loan of up to an aggregate principal amount of $40.0 million is available to us. The Loan Agreement provides for an initial term loan advance of $25.0 million, which closed on November 8, 2012, and an additional term loan advance of up to $15.0 million, which is available at any time through December 15,

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2012 upon our request. The term loan bears interest at an annual rate equal to the greater of 10.55% and 10.55% plus the prime rate of interest minus 5.25%, but may not exceed 12.55%. The Loan Agreement provides for interest-only payments for twelve months and repayment of the aggregate outstanding principal balance of the loan in monthly installments starting on December 1, 2013 and continuing through May 1, 2016. If we receive aggregate gross proceeds of at least $75 million in one or more transactions prior to December 1, 2013, including pursuant to a financing or collaboration, we may elect to extend the interest-only period by six months so that the aggregate outstanding principal balance of the loan would be repaid in monthly installments starting on June 1, 2014 and continuing through November 1, 2016. In addition, we paid a fee of $0.3 million upon closing and are required to pay a fee of $1.2 million at maturity. At our option, we may elect to prepay all or any part of the outstanding term loan without penalty. In connection with the Loan Agreement, we granted Hercules a security interest in all of our personal property now owned or hereafter acquired, excluding intellectual property but including the proceeds from the sale, if any, of intellectual property, and a negative pledge on intellectual property. The Loan Agreement also contains certain representations, warranties and non-financial covenants.

There have been no other material changes to our contractual obligations and commitments outside the ordinary course of business from those disclosed under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Contractual Obligations and Commitments” in our Annual Report on Form 10-K for the year ended December 31, 2011 filed with the SEC on March 30, 2012.

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 under SEC rules.

Recent Accounting Pronouncements

In July 2012, the Financial Accounting Standards Board issued ASU No. 2012-02, *Testing Indefinite-Lived Intangible Assets for Impairment*, or ASU 2012-02. ASU 2012-02 is intended to reduce the cost and complexity of testing indefinite-lived intangible assets other than goodwill for impairment. It allows companies to perform a “qualitative” assessment to determine whether further impairment testing of indefinite-lived intangible assets is necessary. ASU 2012-02 is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012, with early adoption permitted. We adopted ASU 2012-02 in the third quarter of 2012 upon our annual impairment testing of indefinite-lived intangible assets.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We invest in a variety of financial instruments, principally cash deposits, money market funds, securities issued by the U.S. government and its agencies and corporate debt securities. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk.

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of interest rates, particularly because our investments are in short-term marketable securities. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 1% change in interest rates would not have a material effect on the fair market value of our portfolio. We have the ability and intention to hold our investments until maturity, and

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therefore, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

We do not currently have any auction rate or mortgage-backed securities. We do not believe our cash, cash equivalents and available-for-sale investments have significant risk of default or illiquidity, however we cannot provide absolute assurance that in the future our investments will not be subject to adverse changes in market value.

On November 8, 2012, we entered into a long-term debt agreement for a term loan that bears interest at variable rates. Upon closing of this facility, we had an aggregate principal amount of $25.0 million outstanding. Interest is payable at an annual rate equal to the greater of 10.55% and 10.55% plus the prime rate of interest minus 5.25%, but may not exceed 12.55%. As a result of the 12.55% maximum annual interest rate, we have limited exposure to changes in interest rates on borrowings under this facility. For each 1% increase in the prime rate over 5.25% on the outstanding debt amount, we would have an increase in future cash outflows of approximately $250,000 over the next twelve month period.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of September 30, 2012. 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 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, 2012, our Chief Executive Officer and 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

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended September 30, 2012 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II
OTHER INFORMATION

Item 1. Legal Proceedings.

We are currently engaged in two ongoing opposition proceedings to European patents in the European Patent Office to narrow or invalidate the claims of patents owned by third parties. We have obtained favorable interim decisions in both oppositions, although both decisions are now under appeal. The ultimate outcome of these oppositions remains uncertain.

We filed our notice of opposition in the first proceeding, opposing a patent (EP 0896586) held by Genentech, Inc., or Genentech, in July 2007 on the grounds of added matter, insufficient disclosure, lack of novelty and lack of inventive step. Amgen and U3 Pharma also opposed the Genentech patent. If the issued claims of the Genentech patent were determined to be valid and construed to cover MM-121 or MM-111, our development and commercialization of these product candidates in Europe could be delayed or prevented. In August 2009, the European Patent Office issued a written decision rejecting several sets of Genentech's claims and upholding the patent solely on the basis of a further set of claims that we believe will not restrict the development or commercialization of MM-121 or MM-111. All parties have appealed this decision. Pending the outcome of the appeal proceedings, the original issued claims of the Genentech patent remain in effect. Each party has submitted written statements regarding the appeal to the European Patent Office. No date has been set for a hearing for the appeal.

We filed our notice of opposition in the second proceeding, opposing a patent (EP 1187634) held by Zensun (Shanghai) Science and Technology Ltd., or Zensun, in September 2008 on the grounds of added matter, insufficient disclosure, lack of novelty and lack of inventive step. If the issued claims of the Zensun patent were determined to be valid and construed to cover MM-111, our development and commercialization of MM-111 in Europe could be delayed or prevented. In August 2010, the European Patent Office issued a written decision revoking Zensun's patent. Zensun has appealed this decision. Pending the outcome of this appeal, the original issued claims of the Zensun patent remain in effect. Each party has submitted written statements regarding the appeal to the European Patent Office. No date has been set for a hearing for the appeal.

We are not currently a party to any other material legal proceedings.

Item 1A. Risk Factors.

Risks Related to Our Financial Position and Need for Additional Capital

We have incurred significant losses since our inception. We expect to incur losses for the foreseeable future and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses. Our net loss was $66.9 million for the nine months ended September 30, 2012, $79.7 million for the year ended December 31, 2011, $50.2 million for the year ended December 31, 2010 and $49.1 million for the year ended December 31, 2009. As of September 30, 2012, we had an accumulated deficit of $417.3 million. To date, we have financed our operations primarily through private placements of our convertible preferred stock, collaborations, an initial public offering of our common stock, a secured debt financing and, to a lesser extent, through government grants and the monetization of tax credits. We have devoted substantially all of our efforts to research and development, including clinical trials. We have not completed development of any therapeutic product candidates or companion diagnostics. We expect to continue to incur significant

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expenses and increasing operating losses for at least the next several years. We anticipate that our expenses will increase substantially as we:

- initiate or continue our clinical trials of our five most advanced product candidates;
- continue the research and development of our other product candidates;
- seek to discover additional product candidates;
- seek regulatory approvals for our product candidates that successfully complete clinical trials;
- establish a sales, marketing and distribution infrastructure and scale up manufacturing capabilities to commercialize products for which we may obtain regulatory approval; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned commercialization efforts.

To become and remain profitable, we must succeed in developing and eventually commercializing products with significant market potential. This will require us to be successful in a range of challenging activities, including discovering product candidates, completing preclinical testing and clinical trials of our product candidates, obtaining regulatory approval for these product candidates and manufacturing, marketing and selling those products for which we may obtain regulatory approval. We are only in the preliminary stages of some of these activities. We may never succeed in these activities and may never generate revenues that are significant or large enough to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Our substantial indebtedness may limit cash flow available to invest in the ongoing needs of our business.

As of November 8, 2012, under the Loan Agreement with Hercules, we had $25.0 million principal amount of secured debt outstanding from the initial term loan advance and $15.0 million available under an additional term loan advance that we may request at any time through December 15, 2012. We may borrow all or part of the amount available under the additional term loan advance and could in the future incur additional indebtedness beyond such amount.

Our substantial debt combined with our other financial obligations and contractual commitments could have significant adverse consequences, including:

- requiring us to dedicate a substantial portion of cash flow from operations to the payment of interest on, and principal of, our debt, which will reduce the amounts available to fund working capital, capital expenditures, product development efforts and other general corporate purposes;
- increasing our vulnerability to adverse changes in general economic, industry and market conditions;

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- obligating us to restrictive covenants that may reduce our ability to take certain corporate actions or obtain further debt or equity financing;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- placing us at a competitive disadvantage compared to our competitors that have less debt or better debt servicing options.

In addition, we are vulnerable to increases in the market rate of interest because our currently outstanding secured debt and the additional term loan advance available under the Loan Agreement bear interest at a variable rate. If the market rate of interest increases, we will have to pay additional interest on our outstanding debt, which would reduce cash available for our other business needs.

We intend to satisfy our current and future debt service obligations with our existing cash and cash equivalents and funds from external sources. However, we may not have sufficient funds or may be unable to arrange for additional financing to pay the amounts due under our existing debt. Funds from external sources may not be available on acceptable terms, if at all. In addition, a failure to comply with the covenants under our existing debt instruments could result in an event of default under those instruments. In the event of an acceleration of amounts due under our debt instruments as a result of an event of default, we may not have sufficient funds or may be unable to arrange for additional financing to repay our indebtedness or to make any accelerated payments, and the lenders could seek to enforce security interests in the collateral securing such indebtedness. In addition, the covenants under our existing debt instruments and the pledge of our assets as collateral limit our ability to obtain additional debt financing.

We will need substantial additional funding. If we are unable to raise capital when needed, we would be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our research and development expenses to increase in connection with our ongoing activities, particularly as we continue the research, development and clinical trials of, and seek regulatory approval for, our product candidates. In addition, in connection with seeking and possibly obtaining regulatory approval of any of our product candidates, we expect to incur significant commercialization expenses for product sales, marketing, manufacturing

and distribution. We will need substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or commercialization efforts.

We expect that our existing cash and cash equivalents and available-for-sale securities on hand, anticipated interest income, and anticipated milestone payments and research and development and manufacturing funding under our license and collaboration agreement with Sanofi related to MM-121, plus the $40.0 million term loan made available under the Loan Agreement with Hercules, will enable us to fund our operating expenses and capital expenditure requirements into 2014. Our future capital requirements will depend on many factors, including:

- the progress and results of the clinical trials of our five most advanced product candidates;
- the success of our collaborations with Sanofi related to MM-121 and PharmaEngine related to MM-398;

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- the scope, progress, results and costs of preclinical development, laboratory testing and clinical trials for our other product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of commercialization activities, including product sales, marketing, manufacturing and distribution;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims;
- the extent to which we acquire or invest in businesses, products and technologies; and
- our ability to establish and maintain additional collaborations on favorable terms, particularly marketing and distribution arrangements for oncology product candidates outside the United States and Europe.

Conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for several years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives.

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

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances, licensing arrangements and other marketing and distribution arrangements. We do not have any committed external source of funds, other than our collaboration with Sanofi for the development and commercialization of MM-121, which is terminable by Sanofi for convenience upon 180 days' prior written notice, and the remaining term loan advance under our Loan Agreement with Hercules. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a stockholder. Additional debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Our investments are subject to risks that could result in losses.

We invest our cash in a variety of financial instruments, principally securities issued by the U.S. government and its agencies, investment grade corporate bonds, including commercial paper, and money market instruments. All of these investments are subject to credit, liquidity, market and interest rate risk.

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Such risks, including the failure or severe financial distress of the financial institutions that hold our cash, cash equivalents and investments, may result in a loss of liquidity, impairment to our investments, realization of substantial future losses, or a complete loss of the investments in the long-term, which may have a material adverse effect on our business, results of operations, liquidity and financial condition. In order to manage the risk to our investments, we maintain an investment policy that, among other things, limits the amount that we may invest in any one issue or any single issuer and requires us to only invest in high credit quality securities.

Risks Related to the Development and Commercialization of Our Product Candidates

We depend heavily on the success of our five most advanced product candidates. All of our product candidates are still in preclinical and clinical development. Clinical trials of our product candidates may not be successful. If we are unable to commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the acquisition of rights to MM-398 and the development of our four other most advanced product candidates for the treatment of various types of cancer. All of our therapeutic product candidates are still in preclinical and

clinical development. Our ability to generate product revenues, which we do not expect will occur for at least the next several years, if ever, will depend heavily on the successful development and eventual commercialization of these product candidates. The success of our product candidates, which include both our therapeutic product candidates and companion diagnostic candidates, will depend on several factors, including the following:

- successful enrollment in, and completion of, preclinical studies and clinical trials;
- receipt of marketing approvals from the FDA and similar regulatory authorities outside the United States for our product candidates, including our companion diagnostics;
- establishing commercial manufacturing capabilities, either by building such facilities ourselves or making arrangements with third party manufacturers;
- launching commercial sales of the product, whether alone or in collaboration with others;
- acceptance of the product by patients, the medical community and third party payors;
- effectively competing with other therapies;
- a continued acceptable safety profile of the product following approval; and
- qualifying for, maintaining, enforcing and defending intellectual property rights and claims.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our product candidates, which would materially harm our business.

If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of the FDA or similar regulatory authorities outside the United States or do not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

Before obtaining regulatory approval for the sale of our product candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more of our clinical trials can occur at any stage of testing. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results.

For example, the favorable results from a Phase 2 clinical trial of MM-398 in patients with metastatic pancreatic cancer may not be predictive of success in our Phase 3 clinical trial of MM-398 for the same indication, in particular because the trials have different efficacy endpoints and the Phase 2 trial was a single arm study that did not compare MM-398 to other therapies. Our Phase 3 trial, as recently amended, is designed to compare the efficacy of each of MM-398 as a monotherapy and MM-398 in combination with fluorouracil, or 5-FU, and leucovorin against a common control of the combination of 5-FU and leucovorin. This Phase 3 trial is based on an expected efficacy endpoint of statistically significant difference in overall survival. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive regulatory approval or commercialize our product candidates, including:

- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be insufficient or slower than we anticipate or patients may drop out of these clinical trials at a higher rate than we anticipate;
- our third party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we might have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the patients are being exposed to unacceptable health risks;
- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our product candidates, companion drugs or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators to suspend or terminate the trials.

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For example, due to a lack of efficacy in clinical trials, we suspended internal development of our product candidate MM-093, a potential therapeutic for autoimmune diseases. We subsequently terminated our development program for this product candidate and licensed it to third parties.

In addition, MM-398 is currently being evaluated in a Phase 2 clinical trial in second-line metastatic colorectal cancer, which is being conducted by GERCOR, a cooperative research group of physicians based in France. This trial was initially designed as a randomized, non-comparative trial evaluating a regimen of 5-FU, leucovorin and MM-398 and FOLFIRI, which is a regimen of 5-FU, leucovorin and irinotecan. Roche recently announced results from a Phase 3 clinical trial in second-line metastatic colorectal cancer being conducted in Europe comparing chemotherapy to chemotherapy plus Avastin®. The results of this trial by Roche have caused some medical institutions and physicians in France to modify their clinical practice. As a result, GERCOR amended the Phase 2 clinical trial of MM-398 to include Avastin in both arms. The amended trial resumed accrual of patients in July 2012, and safety data will be evaluated after the first ten patients are dosed in each arm.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain approval for indications that are not as broad as intended;
- have the product removed from the market after obtaining marketing approval;
- be subject to additional post-marketing testing requirements;
- be subject to restrictions on how the product is distributed or used; or
- be unable to obtain reimbursement for use of the product.

In particular, it is possible that the FDA and other regulatory agencies may not consider the results of our Phase 3 clinical trial of MM-398 for the treatment of patients with metastatic pancreatic cancer, once completed, to be sufficient for approval of MM-398 for this indication. In general, the FDA suggests two adequate and well-controlled clinical trials to demonstrate effectiveness because a conclusion based on two persuasive studies will be more secure. Although the FDA informed us that the original design of our Phase 3 clinical trial of MM-398, plus supportive Phase 2 data obtained to date, could potentially provide sufficient safety and effectiveness data for the treatment of patients with metastatic pancreatic cancer, the FDA has further advised us that whether one or two adequate and well controlled clinical trials will be required will be a review issue in connection with a new drug application, or NDA, submission. The FDA has not commented on, and is not required to comment on, the amended protocol of our Phase 3 clinical trial of MM-398. Even if we achieve favorable results in our Phase 3 clinical trial, the FDA may nonetheless require that we conduct additional clinical trials, possibly using a different design.

Our product development costs will also increase if we experience delays in testing or approvals. We do not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. For example, in August 2011, the FDA informed us that, before

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initiating a Phase 1 clinical trial of MM-151, among other things, we needed to submit additional preclinical data from our ongoing toxicology studies. In particular, the FDA requested data on the formation of antibodies against MM-151 in the test animals included in our ongoing toxicology studies. As a result, the FDA placed our investigational new drug application, or IND, for MM-151 on clinical hold until we provided all of the information that the FDA had requested. We provided this information to the FDA in November 2011. In December 2011, the FDA notified us that the clinical hold had been removed and that we could initiate the Phase 1 clinical trial.

Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to commercialize our product candidates and may harm our business and results of operations.

If serious adverse or inappropriate side effects are identified during the development of our product candidates, we may need to abandon our development of some of our product candidates.

All of our product candidates are still in preclinical or clinical development and their risk of failure is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive regulatory approval. Currently marketed therapies for solid tumors are generally limited to some extent by their toxicity. Use of our product candidates as monotherapies in clinical trials also has resulted in adverse events consistent in nature with other marketed therapies. When used in combination with other marketed or investigational therapies, our product candidates may exacerbate adverse events associated with the other therapy. If our product candidates result in undesirable side effects or have characteristics that are unexpected, we may need to modify or abandon their development.

If we experience delays in the enrollment of patients in our clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or other regulatory authorities. In addition, many of our competitors have ongoing clinical

trials for product candidates that could be competitive with our product candidates. Patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates or rely upon treatment with existing therapies that may preclude them from eligibility for our clinical trials.

Enrollment delays in our clinical trials may result in increased development costs for our product candidates, which would cause the value of the company to decline and limit our ability to obtain additional financing. Our inability to enroll a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether.

In general, we forecast enrollment for our clinical trials based on experience from previous clinical trials and monitor enrollment to be able to make adjustments to clinical trials when appropriate, including as a result of slower than expected enrollment that we experience from time to time in our clinical trials. For example, we experienced slower than expected enrollment in our Phase 2 clinical trial of MM-121 in combination with exemestane for hormone-sensitive breast cancer. In response, we revised the entry criteria for the clinical trial to correspond with changes in clinical practice and also expanded the number of sites and countries participating in the clinical trial. It is possible that slow enrollment in other clinical trials in the future could require us to make similar adjustments. If these adjustments do not

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overcome problems with slow enrollment, we could experience significant delays or abandon the applicable clinical trial altogether.

If we are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience significant delays in doing so, we may not realize the full commercial potential of our therapeutics.

An important component of our business strategy is to develop *in vitro* or *in vivo* companion diagnostics for each of our therapeutic product candidates. There has been limited success to date industry-wide in developing companion diagnostics, in particular *in vitro* companion diagnostics. To be successful, we will need to address a number of scientific, technical, regulatory and logistical challenges.

Although we have developed prototype assays for some *in vitro* diagnostic candidates, all of our companion diagnostic candidates are in preclinical development or clinical feasibility testing. We have limited experience in the development of diagnostics and may not be successful in developing appropriate diagnostics to pair with any of our therapeutic product candidates that receive marketing approval. The FDA and similar regulatory authorities outside the United States are generally expected to regulate *in vitro* companion diagnostics as medical devices and *in vivo* companion diagnostics as drugs. In each case, companion diagnostics require separate regulatory approval prior to commercialization. Given our limited experience in developing diagnostics, we expect to rely in part on third parties for their design, development and manufacture. If we, or any third parties that we engage to assist us, are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience delays in doing so, the development of our therapeutic product candidates may be adversely affected, our therapeutic product candidates may not receive marketing approval and we may not realize the full commercial potential of any therapeutics that receive marketing approval. As a result, our business would be harmed, possibly materially.

Even if any of our product candidates, including our five most advanced product candidates, receive regulatory approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community necessary for commercial success.

If any of our product candidates, including our five most advanced product candidates, receive marketing approval, they may nonetheless not gain sufficient market acceptance by physicians, patients, healthcare payors and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the prevalence and severity of any side effects;
- efficacy and potential advantages compared to alternative treatments;
- the price we charge for our product candidates;
- convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- our ability to successfully develop companion diagnostics that effectively identify patient populations likely to benefit from treatment with our therapeutic products;

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- the strength of marketing and distribution support; and
- sufficient third party coverage or reimbursement.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates, we may not be successful in commercializing our product candidates.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of therapeutic products. To achieve commercial success for any approved product, we must either develop a sales and marketing organization or outsource these functions to third parties. Our current plan for our oncology products, other than MM-121, for which we receive marketing approval is to market and sell these products ourselves in the

United States and Europe and to establish distribution or other marketing arrangements with third parties for these products in the rest of the world. We plan to co-promote MM-121 in the United States with Sanofi, which otherwise holds worldwide commercialization rights to this product candidate.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Establishing effective sales, marketing and distribution capabilities and infrastructure in Europe may be particularly difficult for us. We have no prior experience in these areas. In addition, there are complex regulatory, tax, labor and other legal requirements imposed by both the European Union and many of the individual countries in Europe with which we will need to comply. Many U.S.-based biopharmaceutical companies have found the process of marketing their own products in Europe to be very challenging.

We also may not be successful entering into arrangements with third parties to sell and market our product candidates or doing so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

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

The development and commercialization of new therapeutic and diagnostic products is highly competitive. We face competition with respect to our current product candidates, and will face competition with respect to any products that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. Several large pharmaceutical and biotechnology companies currently market and sell products for the treatment of the solid tumor indications for which we are developing our product candidates. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative

arrangements for research, development, manufacturing and commercialization. Many of these competitors are attempting to develop therapeutics for our target indications.

We are developing our product candidates for the treatment of solid tumors. There are a variety of available therapies marketed for solid tumors. In many cases, these drugs are administered in combination to enhance efficacy. Some of these drugs are branded and subject to patent protection, and others are available on a generic basis, including the active ingredients in MM-398 and MM-302. Many of these approved drugs are well established therapies and are widely accepted by physicians, patients and third party payors. This may make it difficult for us to achieve our business strategy of replacing existing therapies with our product candidates.

There are also a number of products in late stage clinical development to treat solid tumors. Our competitors may develop products that are more effective, safer, more convenient or less costly than any that we are developing or that would render our product candidates obsolete or non-competitive. Our competitors may also obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third party reimbursement practices or healthcare reform initiatives, thereby harming our business.

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

Our ability to commercialize any products successfully also will depend in part on the extent to which reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and third party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere is cost containment. Government authorities and these third party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third party payors are requiring that companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. We

cannot be sure that reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Reimbursement may impact the demand for, or the price of, any product for which we obtain marketing approval. Obtaining reimbursement for our products may be particularly difficult because of the higher prices often associated with products administered under the supervision of a physician. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate that we successfully develop.

There may be significant delays in obtaining reimbursement for approved products, and coverage may be more limited than the purposes for which the product is approved by the FDA or regulatory authorities in other countries. Moreover, eligibility for reimbursement does not imply that any product will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim payments for new products, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Payment rates may vary according to the use of the product and the clinical setting in which it is used, may be based on payments allowed for lower cost products that are already reimbursed, and may be incorporated into existing payments for other services. Net prices for products may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of products from countries where they may be sold at lower prices than in the United States. Third party payors often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment rates from both government funded and private payors for new products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

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

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of patients from clinical trials;
- significant costs to defend the related litigation;
- substantial monetary awards to patients;
- loss of revenue; and
- the inability to commercialize any products that we may develop.

We currently hold $10.0 million in product liability insurance coverage, which may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may

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not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise.

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

Because we have limited financial and managerial resources, we focus on research programs and product candidates for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products.

We have based our research and development efforts on our Network Biology approach. Notwithstanding our large investment to date and anticipated future expenditures in Network Biology, we have not yet developed, and may never successfully develop, any marketed products using this approach. As a result of pursuing our Network Biology approach, we may fail to address or develop product candidates or indications based on other scientific approaches that may offer greater commercial potential or for which there is a greater likelihood of success.

We also may not be successful in our efforts to identify or discover additional product candidates through our Network Biology approach. Research programs to identify new product candidates require substantial technical, financial and human resources. These research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development.

If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been advantageous for us to retain sole development and commercialization rights.

We plan to establish separately funded companies for the development of product candidates using our Network Biology approach in some areas outside the oncology field. These companies may not be successful in the development and commercialization of any product candidates.

We plan to apply our Network Biology approach to multiple additional disease areas outside the oncology field. We expect to do so in some cases through the establishment of separately funded companies. For example, we established Silver Creek to develop product candidates in the field of regenerative medicine using Network Biology. Silver Creek has received separate funding from investors other than us. Although Silver Creek is currently majority owned by us, in the future we may not be the majority owner of or control Silver Creek or other companies that we establish. If in the future we do

not control Silver Creek or any future similar company that we establish, Silver Creek or such other companies could take actions that we do not endorse or with which we disagree, such as using Network Biology in a way that reflects adversely on us. In addition, these companies may have difficulty raising additional funds and could encounter any of the risks in developing and commercializing product candidates to which we are subject.

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

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

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

In addition, we may be required to incur substantial costs to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Risks Related to Our Dependence on Third Parties

The successful development and commercialization of MM-121 depends substantially on our collaboration with Sanofi. If Sanofi is unable to further develop or commercialize MM-121, or experiences significant delays in doing so, our business will be materially harmed.

MM-121 is one of our most clinically advanced product candidates. In 2009, we entered into a license and collaboration agreement with Sanofi for the development and commercialization of MM-121. Prior to this collaboration, we did not have a history of working together with Sanofi. The collaboration involves a complex allocation of rights, provides for milestone payments to us based on the achievement of specified development, regulatory and commercial sale milestones, and provides us with royalty-based revenue if MM-121 is successfully commercialized. We cannot predict the success of the collaboration.

Under our license and collaboration agreement, Sanofi has significant control over the conduct and timing of development and commercialization efforts with respect to MM-121. Although we and Sanofi have approved a global development plan, Sanofi may change its development plans for MM-121 at any time. We have little control over the amount, timing and quality of resources that Sanofi devotes to the development or commercialization of MM-121. If Sanofi fails to devote sufficient financial and other resources to the development or commercialization of MM-121, the development and commercialization of MM-121 would be delayed or could fail. This would result in a delay in our receiving milestone payments or royalties with respect to MM-121 or in our not receiving such milestone payments or royalties at all.

If we do not satisfy various conditions under our license and collaboration agreement with Sanofi, we will not realize all of the anticipated benefits under the agreement and our business would be materially harmed.

Our license and collaboration agreement with Sanofi contains a number of conditions that we must satisfy in order to receive milestone payments and royalties. For example, Sanofi has agreed to pay

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us milestones if sales of products containing MM-121 reach certain levels. If we do not achieve any of the milestones contained in the agreement, we will not receive all of the payments or revenues that we might otherwise receive under the agreement had we achieved such milestones.

If we lose Sanofi as a collaborator in the development or commercialization of MM-121, it would materially harm our business.

Sanofi has the right to terminate our agreement for the development and commercialization of MM-121, in whole or with respect to specified territories, at any time and for any reason, upon 180 days' prior written notice. Sanofi also has the right to terminate our agreement if we fail to cure a material breach of our agreement within a specified cure period, or fail to diligently pursue a cure if such a breach is not curable within such period.

If Sanofi terminates our agreement at any time, whether on the basis of our uncured material breach or for any other reason, it would delay or prevent our development of MM-121 and materially harm our business and could accelerate our need for additional capital. In particular, we would have to fund the clinical development and commercialization of MM-121 on our own, seek another collaborator or licensee for such clinical development and commercialization, or abandon the development and commercialization of MM-121.

The successful development and commercialization of MM-398 currently depend on our collaboration with PharmaEngine. If PharmaEngine does not provide clinical trial data to us, our business may be materially harmed.

We have a collaboration with PharmaEngine for the development of MM-398. Under this collaboration, PharmaEngine has rights to commercialize MM-398 in Taiwan, while we hold commercialization rights in all other countries, including the United States. PharmaEngine also has the opportunity to participate in the development of MM-398, for which we are reimbursing their costs. We cannot predict the success of the collaboration. The collaboration involves an allocation of rights, provides for milestone payments by us to PharmaEngine based on the achievement of specified milestones and provides for us to pay PharmaEngine royalties on sales of MM-398 in Europe and specified Asian countries if MM-398 is successfully commercialized in Europe and such specified Asian countries.

We rely on PharmaEngine to provide data and information to us from trials they have conducted and are currently conducting. This information is necessary for our development of MM-398 in the United States. If PharmaEngine does not provide this information to us, our development of MM-398 could be significantly delayed and our costs could increase significantly.

We may depend on collaborations with third parties for the development and commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

Our business plan is to enter into distribution and other marketing arrangements for our oncology products in areas of the world outside of the United States and Europe. In addition, depending on our capital requirements, development and commercialization costs, need for additional therapeutic expertise and other factors, it is possible that we will enter into broader development and commercialization arrangements with respect to either oncology product candidates in addition to MM-121 or product candidates in other therapeutic areas in the United States or Europe or other territories. In particular, while we expect to apply our Network Biology approach to some other disease areas through arrangements

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similar to Silver Creek, it is also possible that we will seek to enter into licensing agreements or other types of collaborations for the application of our Network Biology approach.

Our likely collaborators for any distribution, marketing, licensing or broader collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. We are also a party to a right of review agreement with Sanofi pursuant to which, if we determine to enter into negotiations with a third party regarding any license, option, collaboration, joint venture or similar transaction involving any therapeutic or companion diagnostic product candidate in our pipeline, we will notify Sanofi of such opportunity. Following such notice, Sanofi will have a specified period of time to review the opportunity and determine whether to exercise an additional right to exclusively negotiate an agreement with us with respect to such opportunity for a specified period of time.

We will have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

Collaborations involving our product candidates, including our collaboration with Sanofi, pose the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in their strategic focus or available funding, or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive;
- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to their marketing and distribution;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- disputes may arise between us and the collaborators that result in the delay or termination of the research, development or commercialization of our product candidates or that result in costly litigation or arbitration that diverts management attention and resources; and

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- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators. If a present or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated.

If we are not able to establish additional collaborations, we may have to alter our development plans.

Our product development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Collaborations are complex and time-consuming to negotiate and document. We may also be restricted under existing collaboration agreements from entering into agreements on certain terms with other potential collaborators. We may not be able to negotiate collaborations on acceptable terms, or at all. If that were to occur, we may have to curtail the development of a particular product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of our sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we will not be able to bring our product candidates to market and generate product revenue.

We rely on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials.

We do not independently conduct clinical trials of our product candidates. We rely on third parties, such as contract research organizations, clinical data management organizations, medical institutions and clinical investigators, to perform this function. Our reliance on these third parties for clinical development activities reduces our control over these activities but does not relieve us of our responsibilities. We remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of patients in clinical trials are protected. Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, regulatory approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

We also rely on other third parties to store and distribute supplies for our clinical trials. Any performance failure on the part of our existing or future distributors could delay clinical development or

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regulatory approval of our product candidates or commercialization of our products or cause us to incur additional costs, producing additional losses and depriving us of potential product revenue.

Risks Related to the Manufacturing of Our Product Candidates

We have limited experience in manufacturing our product candidates. We will need to upgrade and expand our manufacturing facility and augment our manufacturing personnel and processes in order to meet our business plans. If we fail to do so, we may not have sufficient drug product to meet our clinical development and commercial requirements.

We have a manufacturing facility located at our corporate headquarters in Cambridge, Massachusetts. We manufacture drug substance at this facility that we use for research and development purposes and for clinical trials of our product candidates. We do not have experience in manufacturing products at a commercial scale. Our current facility may not be sufficient to permit manufacturing of our antibody product candidates for Phase 3 clinical trials or commercial sale. In order to meet our business plan, which contemplates our internally manufacturing drug substance for most of our clinical trials and, over the long-term, for a significant portion of our commercial requirements, we will need to upgrade and expand our manufacturing facilities, add manufacturing personnel and ensure that validated processes are consistently implemented in our facilities. The upgrade and expansion of our facilities will require additional regulatory approvals. In addition, it will be costly and time-consuming to expand our facilities and recruit necessary additional personnel. If we are unable to expand our manufacturing facilities in compliance with regulatory requirements or to hire additional necessary manufacturing personnel, we may encounter delays or additional costs in achieving our research, development and commercialization objectives, including in obtaining regulatory approvals of our product candidates, which could materially damage our business and financial position.

If our clinical manufacturing facility is damaged or destroyed or production at this facility is otherwise interrupted, our business and prospects would be negatively affected.

If the manufacturing facility at our corporate headquarters or the equipment in it is damaged or destroyed, we may not be able to quickly or inexpensively replace our manufacturing capacity or replace it at all. In the event of a temporary or protracted loss of this facility or equipment, we might not be able to transfer manufacturing to a third party. Even if we could transfer manufacturing to a third party, the shift would likely be expensive and time-consuming, particularly since the new facility would need to comply with the necessary regulatory requirements and we would need FDA approval before selling any products manufactured at that facility. Such an event could delay our clinical trials or, if our product candidates are approved by the FDA, reduce our product sales.

Currently, we maintain insurance coverage against damage to our property and equipment and to cover business interruption and research and development restoration expenses. If we have underestimated our insurance needs with respect to an interruption in our clinical manufacturing of our product candidates, we may not be able to cover our losses.

Any other interruption of production at our manufacturing facility also could damage our business. For example, in 2009, we experienced a viral contamination at this facility that required that we shut the facility entirely for decontamination. Because of this contamination, the FDA placed a partial clinical hold on our MM-121 IND until we submitted supporting documentation to the FDA regarding our decontamination procedures. Although we were able to resolve this issue, with the FDA lifting the partial clinical hold in April 2010, other companies have experienced similar contamination problems, and we could experience a similar problem in the future that is more difficult to resolve and could lead to a clinical hold.

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We expect to continue to contract with third parties for at least some aspects of the production of our product candidates for clinical trials and for our products if they are approved for marketing. This increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We currently rely on third party manufacturers for some aspects of the production of our product candidates for preclinical testing and clinical trials, including fill-finish and labeling activities. In addition, while we believe that our existing manufacturing facility, or additional facilities that we will be able to build, will be sufficient to meet our requirements for manufacturing a significant portion of drug substance for our research and development activities, we may need to rely on third party manufacturers for some of these requirements, particularly later stage clinical trials of our antibody product candidates, and, at least in the near term, for commercial supply of any product candidates for which we obtain marketing approval.

We do not have any agreements with third party manufacturers for the clinical or commercial supply of any of our product candidates, and we may be unable to conclude such agreements or to do so on acceptable terms. Reliance on third party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third party manufacturers may not be able to comply with current good manufacturing practices, or cGMP, or Quality System Regulation, or QSR, or similar regulatory requirements outside the United States. Our failure, or the failure of our third party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

Any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP or QSR regulations and that might be capable of manufacturing for us.

We currently rely on single suppliers for the resins, media and filters that we use for our manufacturing process. We purchase these materials from our suppliers on a purchase order basis and do not have long-term supply agreements in place. Any performance failure or refusal to supply on the part of our existing or future suppliers could delay clinical development, marketing approval or commercialization of our products. If our current suppliers cannot perform as agreed, we may be required to replace one or more of these suppliers. Although we believe that there are a number of potential long-term replacements to each supplier, we may incur added costs and delays in identifying and qualifying any such replacements.

We likely will rely upon third party manufacturers to provide us with necessary reagents and instruments to develop, test and manufacture our *in vitro* companion diagnostics. Currently, many reagents are marketed as Research Use Only, or RUO, products under FDA regulations. In June 2011, the FDA issued a draft guidance that outlined the FDA's intention to impose additional restrictions on the

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provision of RUO products. If this guidance is finalized, we may experience difficulty securing the reagents that we need.

Our potential future dependence upon others for the manufacture of our product candidates may adversely affect our future profit margins and our ability to commercialize any products that receive regulatory approval on a timely and competitive basis.

A former fill-finish contractor received a warning letter from the FDA, which impacted our clinical trials of MM-121 and MM-111.

A third party contractor that we used to fill and package both MM-121 and MM-111 experienced FDA inspection issues with its quality control processes that resulted in a formal warning letter from the FDA. Following a review by Sanofi and us, some MM-121 was pulled from clinical trial sites and replaced with MM-121 that was filled by a different contractor. This restocking is complete and resulted in a few patients missing one or two doses of MM-121. Sanofi had requested that we assume financial responsibility for the MM-121 material that was pulled from clinical trial sites. We and Sanofi have since agreed that, during 2012 and 2013, we will reimburse Sanofi approximately $1.2 million of previously billed amounts.

The MM-111 that was being used in our clinical trials was also filled and packaged by this same contractor. The FDA inquired about the effect of this contractor's quality issues on MM-111 clinical trial materials. Following our response to the FDA's inquiry, the FDA requested in January 2012 that we obtain new consents from any patients enrolled in our ongoing Phase 1 clinical trials of MM-111 in connection with continued use in these trials of MM-111 material filled and packaged by this contractor. In addition, the FDA placed a partial clinical hold on these ongoing clinical trials, which restricted our ability to enroll new patients in these trials, until MM-111 material filled and packaged by a new third party contractor that we engaged was available. This restocking is complete and resulted in a short delay in the dosing of a few patients without any patients missing a dose.

Although we believe that we have addressed the concerns of the FDA with respect to the clinical trial material filled and packaged by our former third party contractor, it is possible that the FDA could make additional inquiries that could further impact our clinical trials of MM-121.

Risks Related to Our Intellectual Property

If we fail to comply with our obligations in our intellectual property licenses with third parties, we could lose license rights that are important to our business.

We are a party to a number of intellectual property license agreements with third parties, including with respect to MM-398, MM-121 and MM-111, and expect to enter into additional license agreements in the future. Our existing license agreements impose, and we expect that our future license agreements will impose, various diligence, milestone payment, royalty, insurance and other obligations on us. If we fail to comply with these obligations, our licensors may have the right to terminate these agreements, in which event we might not be able to develop and market any product that is covered by these agreements. Termination of these licenses or reduction or elimination of our licensed rights may result in our having to negotiate new or reinstated licenses with less favorable terms. The occurrence of such events could materially harm our business.

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If we are unable to obtain and maintain patent protection for our technology and products, or if our licensors are unable to obtain and maintain patent protection for the technology or products that we license from them, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be adversely affected.

Our success depends in large part on our and our licensors' ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. In some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology or products that we license from third parties. Therefore, we cannot be certain that these patents and applications will be prosecuted and enforced in a manner consistent with the best interests of our business. In addition, if third parties who license patents to us fail to maintain such patents, or lose rights to those patents, the rights we have licensed may be reduced or eliminated.

We have sought to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and products that are important to our business. This process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Under our license and collaboration agreement with Sanofi, we are obligated, at our expense, to use commercially reasonable efforts to file and prosecute patent applications, and maintain patents, covering MM-121 in specified jurisdictions, and these patent rights are licensed to Sanofi.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our and our licensors' patent rights are highly uncertain. Our and our licensors' pending and future patent applications may not result in patents being issued which protect our technology or products or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. The laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we or our licensors were the first to make the inventions claimed in our owned and licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions. Assuming the other requirements for patentability are met, currently, in the United States, the first to make the claimed invention is entitled to the patent, while outside the United States, the first to file a patent application is entitled to the patent. Under the America Invents Act enacted in 2011, the United States will be moving to a first to file system in early 2013. We may become involved in opposition, interference or derivation proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such proceeding could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third party patent rights.

Even if our owned and licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner. The issuance of a patent is not conclusive as to its scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in patent claims being narrowed, invalidated or held

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unenforceable, which could limit our ability to stop or prevent us from stopping others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

We may become involved in lawsuits to protect or enforce our patents, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. We may become party to, or threatened with, future

adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference proceedings before the U.S. Patent and Trademark Office. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future. If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties can have a similar negative impact on our business.

For example, we are aware of issued U.S. patents held by Genentech broadly covering methods of producing certain types of recombinant antibodies and related compositions for antibody production that may be relevant to our development and commercialization of MM-121 and MM-151. These patents expire in 2018. Genentech has asserted infringement claims against several pharmaceutical and biotechnology companies based on these patents. If these patents were determined to be valid and cover our product candidates, we would need to obtain a license to the patented technology, which may cause us to incur licensing related costs. However, a license to these patents may not be available on commercially reasonable terms, or at all. Our failure to obtain a license to these patents could delay or prevent our development and commercialization of our product candidates in the United States.

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We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

We are currently engaged in two ongoing opposition proceedings to European patents in the European Patent Office. If we are not successful in these proceedings, we may not be able to commercialize some of our product candidates without infringing patents held by third parties.

We are currently engaged in two ongoing opposition proceedings to European patents in the European Patent Office to narrow or invalidate the claims of patents owned by third parties. For more information, see Part II, Item 1. Legal Proceedings in this Quarterly Report on Form 10-Q. We have obtained favorable interim decisions in both oppositions, although both decisions are now under appeal. The ultimate outcome of these oppositions remains uncertain. If we are not ultimately successful in these proceedings, and the issued claims of the patents we are opposing were determined to be valid and construed to cover MM-121 or MM-111, we may not be able to commercialize MM-121 or MM-111 in some or all European countries without infringing such patents. If we infringe a valid claim of these patents, we would need to obtain a license to the patented technology, which may cause us to incur licensing-related costs. For example, under our license and collaboration agreement with Sanofi, we are obligated to pay all licensing costs for specified third party patent rights that we or Sanofi may in the future license for the development and commercialization of MM-121, including the patent rights that are the subject of one of these opposition proceedings. However, a license to the patents that are the subject of these opposition proceedings may not be available on commercially reasonable terms or at all. As a result, we could be liable for monetary damages or we may be forced to delay, suspend, forego or cease commercializing these product candidates in some or all countries in Europe if we were found to infringe a valid claim of these patents. In addition, even if we are ultimately successful in these European opposition proceedings, such results would be limited to our activities in Europe.

We are also aware of issued or pending counterparts to one of these European patents in the United States that may be relevant to our development and commercialization of MM-121. If these patents were determined to be valid and construed to cover MM-121, our development and commercialization of MM-121 in the United States could be delayed or prevented.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other

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resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to our patented technology and products, we rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties that have access to them, such as our employees, corporate collaborators, outside scientific collaborators, sponsored researchers, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. In addition, any of these parties may breach the agreements and disclose our proprietary information, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and

time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

Risks Related to Regulatory Approval of Our Product Candidates

If we are not able to obtain required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates, including our five most advanced product candidates, and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to obtain regulatory approval for a product candidate will prevent us from commercializing the product candidate. We have not received regulatory approval to market any of our product candidates in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain regulatory approvals and expect to rely on third party contract research organizations to assist us in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the FDA and other regulatory agencies for each therapeutic indication to establish the product candidate's safety and efficacy. Securing regulatory approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the FDA or other regulatory agencies. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use.

The process of obtaining regulatory approvals is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in regulatory approval policies during the development period, changes in or the enactment of additional statutes or regulations, changes in regulatory review for each submitted product application or approval of

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other products for the same indication may cause delays in the approval or rejection of an application. Regulatory agencies have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate. Any regulatory approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If we pursue development of a companion diagnostic to identify patients who are likely to benefit from a therapeutic product, failure to obtain approval for the diagnostic may prevent or delay approval of the therapeutic product.

We are attempting to develop companion diagnostics to identify patients who are likely to benefit from our therapeutic product candidates. All of our companion diagnostic candidates are in preclinical development or clinical feasibility testing. We have very limited experience in the development of diagnostics and, even with the help of third parties with greater experience, may fail to obtain the required diagnostic product marketing approval, which could prevent or delay approval of the therapeutic product.

In July 2011, the FDA issued draft guidance that stated that if safe and effective use of a therapeutic depends on an *in vitro* diagnostic, then the FDA generally will not approve the therapeutic unless the FDA approves or clears this "*in vitro* companion diagnostic device" at the same time that the FDA approves the therapeutic. The approval or clearance of the *in vitro* diagnostic most likely will occur through the FDA's Center for Devices and Radiological Health Office of In Vitro Diagnostic Device Evaluation and Safety. It is unclear whether the FDA will finalize this guidance in its current format, or when it will do so. Even if the FDA does finalize the guidance, it is unclear how it will interpret the guidance. Even with the issuance of the draft guidance, the FDA's expectations for *in vitro* companion diagnostics remain unclear in some respects. The FDA's developing expectations will affect our *in vitro* companion diagnostics. In particular, the FDA may limit our ability to use retrospective data, otherwise disagree with our approaches to trial design, biomarker qualification, clinical and analytical validity and clinical utility, or make us repeat aspects of the trial or initiate new trials.

Because our companion diagnostic candidates are at an early stage of development, we cannot yet know what the FDA will require for any of these tests. For three of our five most advanced product candidates, MM-121, MM-111 and MM-151, we are attempting to develop an *in vitro* companion diagnostic that will help identify patients likely to benefit from the therapy. Whether the FDA will consider these *in vitro* diagnostics to be "*in vitro* companion diagnostic devices" that require simultaneous approval or clearance with the therapeutics under the draft guidance will depend on whether the FDA views the diagnostics to be essential to the safety and efficacy of these therapeutics.

For our two other most advanced product candidates, MM-398 and MM-302, although we are also investigating possible *in vitro* companion diagnostics, we are currently developing *in vivo* companion diagnostics in the form of imaging agents that may help identify patients likely to benefit from the therapy. Imaging agents are regulated as drugs by the FDA's Center for Drug Evaluation and Research and, as such, are generally subject to the regulatory requirements applicable to other new drug candidates. Although the FDA has not issued guidance with respect to the simultaneous approval of *in vivo* diagnostics and therapeutics, it is possible that the FDA will apply a standard similar to that for *in vitro* diagnostics.

Based on the FDA's past practice with companion diagnostics, if we are successful in developing a companion diagnostic for any of our five most advanced product candidates, we would expect that FDA approval of an *in vitro* companion diagnostic, and possibly an *in vivo* companion diagnostic, would be

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required for approval and subsequent commercialization of each such therapeutic product candidate. We are not aware of any currently available diagnostics that, if necessary, would otherwise allow us to proceed with the approval and subsequent commercialization of our product candidates despite a delay in or failure of our attempts to develop companion diagnostics.

If we fail to maintain orphan drug exclusivity for MM-398, we will have to rely on other rights and protections for this product candidate.

We have obtained orphan drug designation in the United States and orphan medicinal product designation in the European Union for MM-398 for the treatment of pancreatic cancer. In the United States, under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals in the United States.

In the United States, the company that first obtains FDA approval for a designated orphan drug for the specified rare disease or condition receives orphan drug marketing exclusivity for that drug for a period of seven years. This orphan drug exclusivity prevents the FDA from approving another application, including a full NDA, to market the same drug for the same orphan indication, except in limited circumstances. For purposes of small molecule drugs, the FDA defines the term “same drug” to mean a drug that contains the same active molecule and that is intended for the same use as the approved orphan drug. Orphan drug exclusivity may be lost if the FDA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

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

The European Medicines Agency, or EMA, grants orphan medicinal product designation to promote the development of products that may offer therapeutic benefits for life-threatening or chronically debilitating conditions affecting not more than five in 10,000 people in the European Union. Orphan medicinal product designation from the EMA provides ten years of marketing exclusivity following drug approval, subject to reduction to six years if the designation criteria are no longer met.

Our therapeutic product candidates for which we intend to seek approval as biological or drug products may face competition sooner than expected.

With the enactment of the Biologics Price Competition and Innovation Act of 2009, or BPCIA, as part of the Health Care and Education Reconciliation Act of 2010, or the Health Care Reform Law, an abbreviated pathway for the approval of biosimilar and interchangeable biological products was created. The new abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as “interchangeable” based on their similarity to existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a biologics license application, or BLA. The BPCIA is complex and is only beginning to be interpreted and implemented by the FDA. As a result, its ultimate impact, implementation and meaning is subject to uncertainty. While it is uncertain when any such processes may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biological products.

We believe that any of our products approved as a biological product under a BLA should qualify for the 12-year period of exclusivity. However:

- a potential competitor could seek and obtain approval of its own BLA during our exclusivity period instead of seeking approval of a biosimilar version; and
- the FDA could consider a particular product candidate, such as MM-302, which contains both drug and biological product components, to be a drug subject to review pursuant to an NDA, and therefore eligible for a significantly shorter marketing exclusivity period as provided under the Drug Price Competition and Patent Term Restoration Act of 1984.

Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear and will depend on a number of marketplace and regulatory factors that are still developing.

In addition, a drug product approved under an NDA, such as MM-398 if it were to be approved, could face generic competition earlier than expected. The enactment of the Generic Drug User Fee Amendments of 2012 as part of the Food and Drug Administration Safety and Innovation Act of 2012, or FDASIA, established a user fee program that will generate hundreds of millions of dollars in resources for the FDA’s generic drug review program. The FDA and the generic drug industry negotiated performance goals, and the influx of resources and performance goals could significantly decrease the timeframe for FDA review of generic drug applications.

Failure to obtain regulatory approval in international jurisdictions would prevent us from marketing our products abroad.

We intend to market our products both within and outside the United States. In particular, we plan to market and sell ourselves any products for which we receive marketing approval in the European Union, rather than relying on third parties for these capabilities. This may increase the risks described below with respect to our compliance with foreign regulations.

In order to market and sell our products in the European Union and many other jurisdictions, we must obtain separate regulatory approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing, including sometimes additional testing in children. The time required to obtain approval in foreign countries may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be sold in that country. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by

regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market.

Any product for which we obtain marketing approval could be subject to restrictions or withdrawal from the market and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

Any product for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be

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subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP or QSR requirements relating to quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if regulatory approval of a product is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. Later discovery of previously unknown problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in actions such as:

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the marketing of a product;
- restrictions on product distribution;
- requirements to conduct post-marketing clinical trials;
- warning or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of regulatory approvals;
- refusal to permit the import or export of our products;
- product seizure; or
- injunctions or the imposition of civil or criminal penalties.

The FDASIA provides the FDA with new inspection authorities. A drug or biologic will be considered adulterated, with possible resulting civil and criminal penalties, if the owner or operator of the establishment where it is made, processed, packed or held delays, denies, limits or refuses inspection. The FDASIA also replaces the biennial inspection schedule for drugs and biologics with a risk-based inspection schedule. The law grants the FDA authority to require a drug or biologics manufacturer to provide, in advance or instead of an inspection, and at the manufacturer's expense, any records or other information that the agency may otherwise inspect at the facility. The FDASIA also permits the FDA to share inspection information with foreign governments under certain circumstances. The FDASIA is complex and has yet to be interpreted and implemented by the FDA. As a result, its ultimate impact, implementation and meaning are subject to uncertainty.

The FDASIA also provides the FDA with additional authority to exercise against manufacturers of drugs or biologics that are not adhering to pediatric study requirements, which apply even if the

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manufacturer is not seeking to market the drug or biologic to pediatric patients. As of April 2013, the FDA must issue non-compliance letters to companies who do not meet the pediatric study requirements. The company has an opportunity to respond, and the non-compliance letter and company response will become publicly available.

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

Healthcare providers, physicians and others play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. Our future arrangements with third party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- the federal healthcare anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal healthcare programs such as Medicare and Medicaid;

- the federal False Claims Act imposes criminal and civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;

- the federal Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;

- the federal transparency requirements under the Health Care Reform Law requires manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests; and

- analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

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Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business with are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

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

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any products for which we obtain marketing approval.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the Medicare Modernization Act, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products. While the Medicare Modernization Act applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the Medicare Modernization Act may result in a similar reduction in payments from private payors.

Moreover, in March 2010, President Obama signed into law the Health Care Reform Law, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Effective October 1, 2010, the Health Care Reform Law revises the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states. Further, the new law imposes a significant annual fee on companies that manufacture or import branded prescription drug products. Substantial new provisions affecting compliance have also been enacted, which may affect our business practices with health care practitioners. We will not know the full effects of the Health Care Reform Law until applicable federal and state agencies issue regulations or guidance under the new law. Although it is too early to determine the effect of the Health Care Reform Law, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

Most recently, on July 9, 2012, President Obama signed the FDASIA into law. The broad, sweeping law establishes new user fee programs and provides the FDA with new authority in the areas of drugs, biologics and medical devices. We are not certain what the full impact of these changes will be on our business, particularly as the FDA will need to publish regulations and issue guidances to implement the new legislation. We are not sure whether additional legislative changes will be enacted, or whether

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other FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In the area of companion diagnostics, FDA officials indicated in 2010 that the agency planned to issue two guidances in this area. The FDA issued one draft guidance in July 2011. The FDA has yet to issue a second draft guidance and may decide not to issue a second draft guidance or finalize the existing draft guidance. The FDA's issuance of a final guidance, or issuance of additional draft guidance, could affect our development of *in vitro* companion diagnostics and the applicable regulatory requirements. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

Risks Related to Employee Matters and Managing Growth

Our future success depends on our ability to retain our chief executive officer and other key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on Robert J. Mulroy, our President and Chief Executive Officer, and the other principal members of our executive and scientific teams. Although we have formal employment agreements with each of our executive officers, these agreements do not prevent our executives from terminating their employment with us at any time. We do not maintain "key person" insurance for any of our executives or other employees. The loss of the services of any of these persons could impede the achievement of our research, development and commercialization objectives.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

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

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, manufacturing, regulatory affairs and sales and marketing. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

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We have entered into and may continue to enter into or seek to enter into business combinations and acquisitions which may be difficult to integrate, disrupt our business, divert management attention or dilute stockholder value.

As part of our business strategy, we may enter into business combinations and acquisitions. Although we acquired Hermes in October 2009, we have limited experience in making acquisitions. In addition, acquisitions are typically accompanied by a number of risks, including:

- the difficulty of integrating the operations and personnel of the acquired companies;
- the potential disruption of our ongoing business and distraction of management;
- potential unknown liabilities and expenses;
- the failure to achieve the expected benefits of the combination or acquisition;
- the maintenance of acceptable standards, controls, procedures and policies; and
- the impairment of relationships with employees as a result of any integration of new management and other personnel.

If we are not successful in completing acquisitions that we may pursue in the future, we would be required to reevaluate our business strategy and we may have incurred substantial expenses and devoted significant management time and resources in seeking to complete the acquisitions. In addition, with future acquisitions, we could use substantial portions of our available cash as all or a portion of the purchase price. As we did for the acquisition of Hermes, we could also issue additional securities as consideration for these acquisitions, which could cause our stockholders to suffer significant dilution.

Risks Related to Our Common Stock

Our executive officers, directors and principal stockholders maintain the ability to control or significantly influence all matters submitted to stockholders for approval.

Our executive officers, directors and stockholders who own more than 5% of our outstanding common stock, in the aggregate, beneficially own a large portion of our capital stock. As a result, if these stockholders were to choose to act together, they would be able to control or significantly influence all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, will control or significantly influence the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our corporate charter and our bylaws may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect

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any attempt by our stockholders to replace current members of our management team. Among others, these provisions:

- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our charter or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Our stock price has been and may in the future be volatile, which could cause purchasers of our common stock to incur substantial losses.

Our stock price has been and in the future may be subject to substantial price volatility. The stock market in general and the market for biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, our stockholders could incur substantial losses. The market price for our common stock may be influenced by many factors, including:

- the success of competitive products or technologies;
- results of clinical trials of our product candidates or those of our competitors;
- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patents or other proprietary rights;
- the recruitment or departure of key personnel;
- variations in our financial results or those of companies that are perceived to be similar to us;
- changes in the structure of healthcare payment systems;

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- market conditions in the pharmaceutical and biotechnology sectors and issuance of new or changed securities analysts' reports or recommendations;
- general economic, industry and market conditions; and
- the other factors described in this "Risk Factors" section.

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

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

Future sales of shares of our common stock, including shares issued upon the exercise of currently outstanding options and warrants, could negatively affect our stock price.

A substantial portion of our outstanding common stock can be traded without restriction at any time. Some of these shares are currently restricted as a result of securities laws, but will be able to be sold, subject to any applicable volume limitations under federal securities laws with respect to affiliate sales, in the near future. As such, sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell such shares, could reduce the market price of our common stock. In addition, we have a significant number of shares that are subject to outstanding options and warrants. The exercise of these options and warrants and the subsequent sale of the underlying common stock could cause a further decline in our stock price. These sales also might make it difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

We are an "emerging growth company" and our election to delay adoption of new or revised accounting standards applicable to public companies may result in our financial statements not being comparable to those of other public companies. As a result of this and other reduced disclosure requirements applicable to emerging growth companies, our common stock may be less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and may remain an emerging growth company for up to five years, until December 31, 2017, although if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if we have annual gross revenues of $1 billion or more in any fiscal year, we would cease to be an emerging growth company as of December 31 of the applicable year. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain reporting requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include but are not limited to not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a non-binding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved.

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Among other provisions, the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to delay such adoption of new or revised accounting standards, and as a result, we may not comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for public companies that are not emerging growth companies. As a result of such election, our financial statements may not be comparable to the financial statements of other public companies.

We cannot predict whether investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

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

Use of Proceeds from Registered Securities

Our initial public offering of common stock was effected through a registration statement on Form S-1 (File No. 333-175427), which was declared effective by the SEC on March 27, 2012. We received net proceeds from the offering of approximately $98.1 million, after deducting underwriting discounts and commissions and other offering expenses but prior to the payment of accrued dividends on our Series B convertible preferred stock.

As of September 30, 2012, we have used approximately $4.2 million of the proceeds from the offering to pay dividends on our Series B convertible preferred stock and estimate that we have used additional proceeds as follows:

- approximately $9.4 million to fund our ongoing clinical program for MM-398;
- approximately $6.9 million to fund our ongoing clinical program for MM-111;
- approximately $4.0 million to fund our ongoing clinical program for MM-302;
- approximately $2.6 million to fund our ongoing clinical program for MM-151;
- approximately $33.8 million to fund other research and development efforts; and
- approximately $8.6 million to fund working capital, capital expenditures and other general corporate purposes.

The above estimates of proceeds used do not allocate working capital impacts resulting from the timing of payments for corporate purposes to our clinical programs or our other research and development efforts.

We have invested the unused proceeds from the offering in a variety of capital preservation investments, including money market funds and short-term, investment grade, interest-bearing corporate debt and U.S. government and U.S. government agencies securities. There has been no material change in our planned use of proceeds from the offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b) under the Securities Act.

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Item 6. Exhibits.

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index, which Exhibit Index is incorporated herein by reference.

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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.

MERRIMACK PHARMACEUTICALS, INC.

Date: November 14, 2012

By: /s/ William A. Sullivan
William A. Sullivan
Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

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EXHIBIT INDEX

Exhibit Number	Description of Exhibit
10.1	Indenture of Lease, dated as of August 24, 2012, by and between the Registrant and RB Kendall Fee, LLC
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Database
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Submitted electronically herewith.

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language): (i) Condensed Consolidated Balance Sheets at December 31, 2011 and September 30, 2012 (unaudited), (ii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the three and nine months ended September 30, 2011 and 2012 (unaudited), (iii) Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2011 and 2012 (unaudited) and (iv) Notes to Condensed Consolidated Financial Statements (unaudited).

In accordance with Rule 406T of Regulation S-T, the XBRL related information in Exhibit 101 to this Quarterly Report on Form 10-Q is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act, is deemed not filed for purposes of Section 18 of the Exchange Act, and otherwise is not subject to liability under these sections.

EXHIBIT 1, SHEET 1
Building No. 600/650/700, One Kendall Square
Cambridge, Massachusetts
(the "Building")

Execution Date:	August 24, 2012
Tenant:	Merrimack Pharmaceuticals Inc. (Name) a Delaware corporation (Description of business organization) One Kendall Square, Building 600/650/700, Cambridge, Massachusetts 02139 (Principal place of business mailing address)
Landlord:	RB Kendall Fee, LLC, a Delaware limited liability company. Mailing address: c/o The Beal Companies, LLP, 177 Milk Street, Boston, Massachusetts 02109- 3410
Building:	Building No. 600/650/700 in One Kendall Square in the City of Cambridge, Middlesex County, Commonwealth of Massachusetts.

Art. 2 Premises:

Existing Lab/Office Premises: Approximately 31,747 rentable square feet of space on a portion of the second floor (2nd) of Building 600/650/700 (the "2nd Floor Space"); approximately 4,773 rentable square feet of space on the fourth (4th) floor of Building 650/700 (the "Additional Space"); approximately 30,626 rentable square feet of space on the fourth (4th) floor of Building 600/700 (the "4th Floor Space"); approximately 7,245 rentable square feet of space on the mezzanine level of Building 700 (the "Mezzanine Space") and approximately 8,437 rentable square feet of space on the first (1st) floor of Building 600 (the "1st Floor Space") all as shown on the plans attached hereto as Exhibit 2.

Existing Basement Premises: An area in the basement of the Building containing approximately 132 rentable square feet ("Basement Premises") substantially as shown on the plan attached hereto as Exhibit 2A.

Existing Storage Space: Approximately 2,922 rentable square feet of space in the basement of Building 600/650/700 (the "Storage Space") as shown on the plan attached as Exhibit 2B

Except as expressly set forth in this Lease, the Existing Lab/Office Premises, the Basement Premises and the Storage Space shall hereinafter be referred to as the "Premises".

Expansion Space: Approximately 8,763 rentable square feet of space located on the fourth (4th) floor of Building 700 (the "Expansion Space I"); approximately 3,388 rentable square feet of space located on the fourth (4th) floor and the fourth (4th) floor mezzanine of Building 650 (the "Expansion Space II"), the approximately 10,608 rentable square feet of space located on the fifth (5th) floor of Building 600 (the "Expansion Space III") and the approximately 491 rentable square feet of space on the first (1st) floor of the Building (the "Chemical Storage Space") all as shown on the plans attached hereto as Exhibit 2C and Exhibit 2D. The Expansion Space I, Expansion Space II, Expansion Space III and the Chemical Storage Space may be referred to collectively herein as the "Expansion Space".

Upon the Term Commencement Date for each of the Expansion Space I, II, III and the Chemical Storage Space, each such space shall also be referred to herein as the "Premises" except as expressly set forth otherwise in the Lease.

Art. 3.1 Term Commencement Date:

For the Existing Lab/Office Premises, the Basement Premises and the Storage Space: As of the Execution Date of

---

this Lease

For the Expansion Space I: The date that is earlier of (i) the date Tenant occupies the Expansion Premises I for business purposes and (ii) January 1, 2013 (such earlier date being the "Expansion Space I Commencement Date")

For the Expansion Space II: The date that is the earlier of (i) the date Tenant occupies the Expansion Space II for business purposes and (ii) January 1, 2013 (such earlier date being the "Expansion Space II Commencement Date")

For the Expansion Space III: The date that is the earlier of (i) the date Tenant occupies the Expansion Space III for business purposes and (ii) April 1, 2013 (such earlier date being the "Expansion Space III Commencement Date")

For the Chemical Storage Space: The date that is earlier of (i) the date Tenant occupies the Chemical Storage Space for business purposes and (ii) January 1, 2013 (such earlier date being the "Chemical Storage Space Commencement Date")

Art. 3.2 Termination Date: June 30, 2019

Art. 5 Permitted Use of Premises:

2nd Floor Space, Additional Space, 4th Floor Space, 1st Floor Space Expansion Space I and Expansion Space III: General business offices, laboratory use (including, without limitation, animal laboratory use) and ancillary uses thereto subject to Article 29.11 of the Lease and the other provisions of this Lease.

Basement Premises: Operation of the Ph Neutralization system and for no other purpose

Mezzanine Space: General business offices uses and for no other purpose.

Expansion Space II: General business offices and shipping and receiving purposes and for no other purpose.

Storage Space: For the storage of Tenant's personal property (excluding chemical storage) relating to the Permitted Use of the Premises.

Chemical Storage Space: Solely for storage, including, without limitation, storage of chemicals used in connection with Tenant's business operations in the remainder of the Premises. The use of the Chemical Storage Space and storage of all such chemicals shall be in compliance with all applicable laws and otherwise in compliance with all the terms of the including, without limitation, Section 29.11.

Art. 6 Yearly Rent/ Monthly Payment:

2nd Floor Space

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Execution Date – April 30, 2013	$ 1,235,593.24	$ 102,966.10	$ 38.92
May 1, 2013 – April 30, 2014	$ 1,267,340.24	$ 105,611.69	$ 39.92
May 1, 2014 – April 30, 2015	$ 1,299,087.24	$ 108,257.27	$ 40.92
May 1, 2015 – April 30, 2016	$ 1,428,615.00	$ 119,051.25	$ 45.00
May 1, 2016 – April 30, 2017	$ 1,460,362.00	$ 121,696.83	$ 46.00
May 1, 2017 – April 30, 2018	$ 1,492,109.00	$ 124,342.42	$ 47.00
May 1, 2018 – June 30, 2019	$ 1,523,856.00	$ 126,988.00	$ 48.00

Additional Space

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Execution Date – August 31, 2012	$ 95,460.00	$ 7,955.00	$ 20.00
September 1, 2012 – April 30, 2013	$ 205,239.00	$ 17,103.25	$ 43.00
May 1, 2013 – April 30, 2014	$ 210,012.00	$ 17,501.00	$ 44.00
May 1, 2014 – April 30, 2015	$ 214,785.00	$ 17,898.75	$ 45.00
May 1, 2015 – April 30, 2016	$ 219,558.00	$ 18,296.50	$ 46.00
May 1, 2016 – April 30, 2017	$ 224,331.00	$ 18,694.25	$ 47.00
May 1, 2017 – April 30, 2018	$ 229,104.00	$ 19,092.00	$ 48.00
May 1, 2018 – June 30, 2019	$ 233,877.00	$ 19,489.75	$ 49.00

4th Floor Space

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Execution Date – April 30, 2013	$ 1,323,788.00	$ 110,315.67	$44.00 (for 18,748 rsf) and $42.00 (for 11,878rsf)
May 1, 2013 – April 30, 2014	$ 1,355,200.50	$ 112,933.38	$ 44.25
May 1, 2014 – April 30, 2015	$ 1,385,826.50	$ 115,485.54	$ 45.25
May 1, 2015 – April 30, 2016	$ 1,416,452.50	$ 118,037.71	$ 46.25
May 1, 2016 – April 30, 2017	$ 1,447,078.50	$ 120,589.88	$ 47.25
May 1, 2017 – April 30, 2018	$ 1,477,704.50	$ 123,142.04	$ 48.25
May 1, 2018 – June 30 2019	$ 1,508,330.50	$ 125,694.21	$ 49.25

Mezzanine Space

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Execution Date – June 30, 2012	$ 123,165.00	$ 10,263.75	$ 17.00
July 1, 2012 – April 30, 2013	$ 126,787.50	$ 10,565.63	$ 17.50
May 1, 2013 – April 30, 2014	$ 159,390.00	$ 13,282.50	$ 22.00
May 1, 2014 – April 30, 2015	$ 163,012.50	$ 13,584.38	$ 22.50
May 1, 2015 – April 30, 2016	$ 166,635.00	$ 13,886.25	$ 23.00
May 1, 2016 – April 30, 2017	$ 170,257.50	$ 14,188.13	$ 23.50
May 1, 2017 – April 30, 2018	$ 173,880.00	$ 14,490.00	$ 24.00
May 1, 2018 – June 30 2019	$ 177,502.50	$ 14,791.86	$ 24.50

1st Floor Space

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
May 8, 2012 – April 30, 2013	$ 371,228.00	$ 30,935.67	$ 44.00
May 1, 2013 – April 30, 2014	$ 379,665.00	$ 31,638.75	$ 45.00
May 1, 2014 – April 30, 2015	$ 388,102.00	$ 32,341.83	$ 46.00
May 1, 2015 – April 30, 2016	$ 396,539.00	$ 33,044.92	$ 47.00
May 1, 2016 – April 30, 2017	$ 404,976.00	$ 33,748.00	$ 48.00
May 1, 2017 – April 30, 2018	$ 413,413.00	$ 34,451.08	$ 49.00
May 1, 2018- June 30, 2019	$ 421,850.00	$ 35,154.17	$ 50.00

Expansion Space I

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Expansion Space I Commencement Date – April 30, 2014	$ 385,572.00	$ 32,131.00	$ 44.00
May 1, 2014 – April 30, 2015	$ 394,335.00	$ 32,861.25	$ 45.00
May 1, 2015 – April 30, 2016	$ 403,098.00	$ 33,591.50	$ 46.00
May 1, 2016 – April 30, 2017	$ 411,861.00	$ 34,321.75	$ 47.00
May 1, 2017 – April 30, 2018	$ 420,624.00	$ 35,052.00	$ 48.00
May 1, 2018 - June 30, 2019	$ 429,387.00	$ 35,782.25	$ 49.00

Expansion Space II

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Expansion Space II Commencement Date – April 30, 2014	$ 118,580.00	$ 9,881.67	$ 35.00
May 1, 2014 – April 30, 2015	$ 121,968.00	$ 10,164.00	$ 36.00
May 1, 2015 – April 30, 2016	$ 125,356.00	$ 10,446.33	$ 37.00
May 1, 2016 – April 30, 2017	$ 128,744.00	$ 10,728.67	$ 38.00
May 1, 2017 – April 30, 2018	$ 132,132.00	$ 11,011.00	$ 39.00
May 1, 2018 - June 30, 2019	$ 135,520.00	$ 11,293.33	$ 40.00

Expansion Space III

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Expansion Space III Commencement Date – April 30, 2014	$ 466,752.00	$ 38,896.00	$ 44.00
May 1, 2014 – April 30, 2015	$ 477,360.00	$ 39,780.00	$ 45.00
May 1, 2015 – April 30, 2016	$ 487,968.00	$ 40,664.00	$ 46.00
May 1, 2016 – April 30, 2017	$ 498,576.00	$ 41,548.00	$ 47.00
May 1, 2017 – April 30, 2018	$ 509,184.00	$ 42,432.00	$ 48.00
May 1, 2018 – June 30, 2019	$ 519,792.00	$ 43,316.00	$ 49.00

Chemical Storage Space

Period	Yearly Rent	Monthly Rent	Rent Per Rentable Square Foot
Chemical Storage Space Commencement Date - April 30, 2014	$ 21,604.00	$ 1,800.33	$ 44.00
May 1, 2014 – April 30, 2015	$ 22,095.00	$ 1,841.25	$ 45.00
May 1, 2015 – April 30, 2016	$ 22,586.00	$ 1,882.17	$ 46.00
May 1, 2016 – April 30, 2017	$ 23,077.00	$ 1,923.08	$ 47.00
May 1, 2017 – April 30, 2018	$ 23,568.00	$ 1,964.00	$ 48.00
May 1, 2018 – June 30, 2019	$ 24,059.00	$ 2,004.92	$ 49.00

Storage Space: Throughout the term of the Lease, Tenant shall pay Monthly Rent for the Storage Space in the amount of $2,922.00 at the same time it pays Monthly Rent for the balance of the Premises.

Art. 7 Total Rentable Area:

As of the Execution Date: 82,828 rentable square feet (this does not include the Basement Premises or the Storage Space)

As of the last of the Expansion Space III Commencement Date: 106,078 rentable square feet (this does not include the Basement Premises or the Storage Space)

Total Rentable Area of Building No. 600/650/700: 224,438 square feet

Total Rentable Area of Complex: 639,586 square feet

Art. 8 Electric current will not be furnished by Landlord to Tenant except as expressly set forth herein.

Art. 9 Operating and Taxes:

Tenant's Proportionate Common Area Share:

2nd Floor Space, Additional Space, 4th Floor Space and Mezzanine Space: 11.63%
1st Floor Space: 1.32%
Expansion Space I: 1.37%
Expansion Space II: 0.53%
Expansion Space III: 1.66%
Chemical Storage Space: 0.08%

Tenant's Proportionate Building Share:

2nd Floor Space, Additional Space, 4th Floor Space and Mezzanine Space: 33.15%
1st Floor Space: 3.76%
Expansion Space I: 3.90%
Expansion Space II: 1.51%
Expansion Space III: 4.73%
Chemical Storage Space: 0.22%

Art. 29.3 Brokers: Cassidy Turley FHO and Colliers International New England LLC

Art. 29.5 Arbitration: Massachusetts; Superior Court

Art. 29.13 Security Deposit: $528,130.84 in the form of a Letter of Credit, subject to reduction in accordance with Article 29.13

Art. 29.14 Option to Extend: One (1) five (5) year option or one (1) one (1) year option as set forth in Article 24.14

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THIS INDENTURE OF LEASE ("the Lease" or "this Lease") made and entered into on the Execution Date as stated in Exhibit 1 and between the Landlord and the Tenant named in Exhibit 1.

Reference is herein made to that certain Indenture of Lease dated May 12, 2006, entered into by and between Landlord and Tenant as subsequently amended by (i) First Amendment of Lease dated March 23, 2007, (ii) Second Amendment of Lease dated as of July 1, 2007, (iii) Third Amendment of Lease dated as of April 1, 2008; (iv) Fourth Amendment of Lease dated November 17, 2008; (v) Fifth Amendment of Lease dated July 6, 2009; and (vi) Sixth Amendment of Lease dated January 27, 2010 and (vii) Seventh Amendment of Lease dated as of June 29, 2010, (viii) Eighth Amendment of Lease dated March 31, 2011 and (ix) Ninth Amendment of Lease dated March 8, 2012 (collectively, the "Prior Lease"). The Landlord and Tenant are the respective holders of the Landlord's and Tenant's interest under the Prior Lease. Landlord and Tenant desire to amend and restate the Prior Lease in connection with the extension of the term thereof and the expansion of the Premises and to provide for the negotiated lease provisions set forth below. Upon the Execution Date of this Lease, the provisions of the Prior Lease shall not have any force or effect whatsoever except for any obligations under the Prior Lease which have accrued prior to the Execution Date and have not been satisfied, which obligations shall also survive.

Landlord does hereby demise and lease to Tenant, and Tenant does hereby hire and take from Landlord, the Premises hereinafter mentioned and described (hereinafter referred to as "Premises"), upon and subject to the covenants, agreements, terms, provisions and conditions of this Lease for the term hereinafter stated:

1. REFERENCE DATA

Each reference in this Lease to any of the terms and titles contained in any Exhibit attached to this Lease shall be deemed and construed to incorporate the data stated under that term or title in such Exhibit.

2. DESCRIPTION OF DEMISED PREMISES

2.1 Demised Premises. The Premises are that portion of the Building as described in Exhibit 1 (as the same may from time to time be constituted after changes therein, additions thereto and eliminations therefrom pursuant to rights of Landlord hereinafter reserved) and is hereinafter referred to as "Building". The Premises are substantially as shown hatched or outlined on the Lease Plans (Exhibits 2, 2A, 2B and 2C) hereto attached and incorporated by reference as a part hereof.

2.2 Appurtenant Rights. Tenant shall have, as appurtenant to the Premises, rights to use in common, with others entitled thereto, subject to reasonable rules from time to time made by Landlord of which Tenant is given notice; (a) the common lobbies, hallways, stairways and elevators of the Building, serving the Premises in common with others, (b) common walkways necessary for access to the Building, and (c) if the Premises include less than the entire rentable area of any floor, the common toilets and other common facilities of such floor; and no other appurtenant rights or easements. In addition, Tenant shall have, as appurtenant to the Premises, the rights set forth in Articles 29.17, 29.18, and 29.19. Notwithstanding anything to the contrary herein or in the Lease contained, Landlord has no obligation to allow any particular telecommunication service provider to have access to the Building or to Tenant's Premises. If Landlord permits such access, Landlord may condition such access upon the payment to Landlord by the service provider of fees assessed by Landlord in its sole discretion. Tenant shall also have, as appurtenant to the Premises, the right to use up to 60 KVA of capacity from a shared emergency generator that is currently located between Buildings 700 and 1400 in the Complex (the "Shared Generator") on a non-exclusive basis in common with other tenants in the Complex. Landlord shall perform all necessary maintenance and repair to the Shared Generator and Tenant shall pay to Landlord, as additional

rent, its pro rata share of such maintenance, repair and operating costs as billed by Landlord in common with other tenants having shared use of the Shared Generator.

2.3 Exclusions and Reservations. (a) All the perimeter walls of the Premises except the inner surfaces thereof, any balconies (except to the extent same are shown as part of the Premises on the Lease Plan (Exhibit 2), terraces or roofs adjacent to the Premises, and any space in or adjacent to the Premises used for shafts, stacks, pipes, conduits, wires and appurtenant fixtures, fan rooms, ducts, electric or other utilities, sinks or other Building facilities, and the use thereof, as well as the right of access through the Premises for the purposes of operation, maintenance, decoration and repair, are expressly excluded from the Premises and reserved to Landlord.

(b) In exercising any right which Landlord has to access the Premises, Landlord and Landlord's agents, employees, or contractors shall use reasonable efforts to minimize any interference with Tenant's use and enjoyment of the Premises arising from any entry into the Premises by Landlord. Except in emergency situations, in no event shall Landlord, or its representatives or contractors, enter any secure areas designated by Tenant in writing to Landlord, unless Landlord (or its representatives or contractors, as the case may be) are accompanied by a representative of Tenant.

3. TERM OF LEASE

3.1 Definitions. As used in this Lease the words and terms which follow mean and include the following:

(a) The "Term Commencement Date" for each respective portion of the Premises shall be the date set forth in Exhibit 1 with respect to such portion of the Premises.

(c) Intentionally Omitted

(d) "Complex" shall be defined as all of the Building, the other buildings, and the Common Areas serving such buildings, all located on the land ("Land") shown outlined on Exhibit 3.

(e)"Common Areas" shall be defined as the common walkways, accessways, and parking facilities located on the Land, as the same may be changed, from time to time.

(f) Whenever the phrase "manner of use" is used in the Lease, it shall be deemed to refer to the acts or omissions of Tenant (or anyone claiming by, through, or under Tenant) in implementing Tenant's Permitted Use of the Premises, as opposed to the nature of the Permitted Use itself. For example, and without limiting the foregoing, Article 5.2 (where Tenant, among other things, agrees that Tenant will not injure other tenants of the Building) states:

> "Landlord acknowledges that the use of the Premises for the Permitted Use stated in Exhibit 1 (as opposed to the manner of use of the Premises by Tenant, even if such manner of use is a Permitted Use) will not breach the provisions of the preceding sentence."

This sentence shall be interpreted to mean (with respect to Tenant's covenant not to injure other tenants of the Building) that the use of the Premises for laboratory and general business office purposes shall not be precluded by the provisions of Article 5.2, but that Tenant in using the Premises for laboratory and general business purposes shall not injure other tenants of the Building.

3.2 Habendum. TO HAVE AND TO HOLD the Premises for a term of years commencing on the respective Term Commencement Date with respect to each portion of the Premises and ending on June 30, 2019 as stated in Exhibit 1 or on such earlier date upon which said term may expire or be terminated pursuant to any of the conditions of limitation or other provisions of this Lease or pursuant to law, subject to extension in accordance with Article 29.14 below (which date for the termination of the term hereof will hereafter be called "Termination Date").

3.3 Declaration Fixing Term Commencement Date. As soon as may be practicable after the execution date hereof, each of the parties hereto agrees, upon demand of the other party to join in the execution, in recordable form, of a statutory notice, memorandum, etc. of lease and/or written declaration in which shall be stated the Term Commencement Date, a description of the Premises, a description of the RFO Premises, pursuant to Article 29.16 below, a description of the RFR Premises, pursuant to Article 29.20 below and the Termination Date, including Tenant's option to extend the term of the Lease, as set forth in Article 29.14 below. If this Lease is terminated before the term expires, then upon Landlord's request the parties shall execute, deliver and record an instrument acknowledging such fact and the date of termination of this Lease, and Tenant hereby appoints Landlord its attorney-in-fact in its name and behalf to execute such instrument if Tenant shall wrongfully fail to execute and deliver such instrument after Landlord's request therefor within ten (10) days.

4. CONDITION OF PREMISES; LANDLORD'S CONTRIBUTION

4.1 Condition of Premises: (a) Existing Lab/Office Premises. Tenant acknowledges that as of the Execution Date Tenant is in possession of the 2nd Floor Space, Additional Space, 4th Floor Space, Mezzanine Space, 1st Floor Space, the Basement Premises and the Storage Space under the Prior Lease and accepts the foregoing portion of the Premises "as-is", in the condition in which said premises are in as of the Execution Date, without any obligation on the part of Landlord to prepare or construct said portion of the Premises for Tenant's occupancy or complete any work therein and without any warranty or representation by Landlord as to the condition of said portion of the Premises. Tenant shall have the right to use the Ph Neutralization system located in the Basement Premises throughout the term of the Lease. Tenant acknowledges that Landlord makes no representation or warranty to Tenant as to the condition of such system. Tenant shall, throughout the term of the Lease, maintain such system in the condition in which such system is in as of the Execution Date, reasonable wear and tear and fire and other casualty excepted. Tenant further acknowledges that portions of the 4th Floor Space were delivered to Tenant with the equipment listed on Exhibit 8 attached hereto (the "Included Equipment") located therein which equipment was provided to Tenant for its use during the term of the Prior Lease. During the term of this Lease, Tenant may use the Included Equipment and Tenant shall be responsible for all costs and expenses relating to moving, and operating the Included Equipment and shall maintain or cause to be maintained, and return and yield-up, the Included Equipment in the same good condition and repair as of the Execution Date, subject to reasonable wear and tear, and in compliance with all

applicable laws and insurance requirements. For purposes of the foregoing sentence, the term "reasonable wear and tear" constitutes that normal, gradual deterioration that occurs due to aging and ordinary use of the Included Equipment despite reasonable and timely maintenance and repairs; in no event shall "reasonable wear and tear" excuse Tenant from its duty to keep the Included Equipment in the condition and repair required hereunder. Tenant shall not remove the Included Equipment from the Premises or materially modify or alter the Included Equipment without, in each instance, obtaining Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Landlord makes no representations or warranties of any kind or nature, express or implied, regarding the suitability of the Included Equipment for Tenant's use.

(1) Landlord hereby represents to Tenant that the reports described in Exhibit 10 are the most recent decommissioning reports provided from the previous tenants of the Expansion Space.

(2) To the extent that the parties mutually determine that there is a problem with snow intake at the sidewall louver entering AH-1, Landlord shall, at no cost to Tenant, eliminate such problem in a manner which is mutually satisfactory to both parties.

(3) Landlord hereby represents to Tenant that, as of the Execution Date of this Lease, the base Building systems serving the Expansion Space ("Premises Systems") are in good working order. Tenant shall have the right, prior to the commencement of any Tenant's Work in such Expansion Space, to determine whether the Premises Systems are, in fact, in good operating order. If Tenant believes that the Premises Systems are not in good working order, then Tenant may give Landlord written notice ("Defect Notice") prior to the time that Tenant commences Tenant's Work in such space. The Defect Notice shall set forth, with specificity, the manner in which the Premises Systems are in violation of Landlord's representation under this Article 4.1(a)(3). If Tenant fails to give a Defect Notice prior to the time that Tenant commences Tenant's Work, or if Tenant does not give Landlord a reasonable opportunity (at least three (3) business days) to investigate the claims set forth in the Defect Notice prior to the commencement of Tenant's Work, then Tenant shall conclusively be deemed to have agreed that the Premises Systems were in good working order as of the Execution Date. If Landlord agrees that the Premises Systems are not in good working order, Landlord shall, at no cost to Tenant, perform any work necessary to place the Premises Systems in good working order. Landlord shall have the right, which right shall be exercisable by written notice to Tenant given on or before the date seven (7) days after Landlord receives the Defect Notice, to object to the Defect Notice. Any dispute under this Article 4.1(a)(3) may be submitted to arbitration in accordance with the provisions of Article 29.4. If it is either agreed by the parties, or determined by the arbitrator, that the Premises Systems were not in good working order as of the Execution Date, then Landlord shall, promptly after such agreement or determination, perform any work necessary to place the Premises Systems in good working order. The provisions of this Article 4.1(a)(3) set forth Tenant's sole rights and remedies in the event of any breach by Landlord of its representations and obligations under this Article 4.1(a)(3). Nothing herein shall relieve Landlord from its maintenance and repair obligations pursuant to Article 8.5 of the Lease.

(b) Expansion Space: The Expansion Space shall be delivered free of all tenants, occupants,

personal property, trade fixtures and equipment, with all base Building systems (including, without limitation, the HVAC and MEP systems) serving each Expansion Space in good working order, separately metered or check-metered for utility consumption and shall be delivered to Tenant in "as-is", "where-is" condition without any warranty of fitness for use or occupancy, expressed or implied, except as expressly set forth herein. Except for Landlord's Work (as defined below), Tenant agrees that Landlord has no work to perform in or on the Expansion Space to prepare same for Tenant's use and occupancy. Upon request, Landlord and Tenant agree to execute a supplemental agreement confirming the actual commencement date for each respective Expansion Space once the same is determined.

(c) Chemical Storage Space. The Chemical Storage Space shall be delivered in broom clean condition, free of all tenants, occupants, personal property, trade fixtures and equipment, and in "as-is", "where-is" condition without any warranty of fitness for use or occupancy, express or implied, and without any obligation on Landlord to complete any work to prepare same for Tenant's use and occupancy.

4.2 Landlord's Contribution and Tenant's Work. A. Tenant plans to complete certain Tenant's leasehold improvements to the Premises, including the Expansion Space, ("Tenant's Work") in accordance with the terms and conditions of this Lease, including but not limited to Articles 11, 12 and 13 hereof. Without limiting the foregoing, Tenant shall obtain Landlord's prior written consent for all of Tenant's Work (and Plans and Specifications therefor [as defined below]), and the contractors, engineers, architects, technicians and mechanics effecting same, which consent shall not be unreasonably withheld, conditioned or delayed. Tenant shall be responsible for the preparation of construction plans and specifications, including but not limited to architectural, mechanical, electrical, plumbing, life-safety and other Building systems and interfaces therewith (collectively, the "Plans and Specifications"), and any specialty engineering necessary for the completion of Tenant's Work, all of which shall be subject to Landlord's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed. Landlord shall be entitled to deduct from Landlord's Contribution (as defined below) all direct, reasonable third party out-of-pocket expenses incurred by Landlord in reviewing and approving the Plans and Specifications following delivery of detailed invoices for same to Tenant.

B. In connection with Tenant's Work, Landlord shall, in the manner hereinafter set forth, contribute up to (1) $6,585,742.50 in the aggregate ("Landlord's Contribution") toward the cost of the design and construction of Tenant's Work based upon $150.00 per rentable square feet of the Expansion Spaces I, II, III and the Chemical Storage Space (totaling $3,487,500.00) and $35.00 per rentable square feet of the 2nd Floor Space and 4th Floor Space; $150.00 per rentable square feet of the Additional Space and $27.50 per rentable square feet of the Mezzanine Space (totaling $3,098,242.50) and (2) an additional $506,220.00 towards the cost of design and construction of the Tenant's Work. Notwithstanding the foregoing allocation of the Landlord's Contribution, Tenant may utilize any portion of the Landlord's Contribution in any portion of the Premises.

C. Provided that Tenant is not in default of its obligations under the Lease at the time that Tenant requests any requisition on account of Landlord's Contribution, Landlord shall pay the cost of the work shown on each requisition (as hereinafter defined) submitted by Tenant to Landlord within thirty (30) days of submission thereof by Tenant to Landlord. Notwithstanding the foregoing, if Landlord refuses to pay any portion of Landlord's Contribution based upon a default of Tenant, then Tenant shall have the right to resubmit its request for payment of such portion of Landlord's Contribution (and Landlord shall make payment to Tenant on account of such resubmission, in accordance with the provisions of this Article 4.2) on the conditions that: (i) Tenant has cured such default, (ii) Tenant is then in full compliance with its obligations under the Lease, and (iii) the Lease is then in full force and effect. For the purposes hereof, a "requisition" shall mean written documentation showing in reasonable detail the costs of the improvements then installed by Tenant in the Premises. Each requisition shall be accompanied by evidence reasonably satisfactory to Landlord that all work covered by previous requisitions has been fully paid by Tenant. Landlord shall have the right, upon reasonable advance notice to Tenant, to inspect Tenant's books and records relating to each requisition in order to verify the amount thereof. Tenant shall submit requisition(s) no more often than monthly.

D. Notwithstanding anything to the contrary herein contained:

(i) Landlord shall have no obligation to advance funds on account of Landlord's

Contribution unless and until Landlord has received the requisition in question, together with certifications from Tenant's architect, certifying that the work shown on the requisition has been performed in accordance with applicable law and in accordance with Tenant's approved plans.

(ii) Except with respect to work and/or materials previously paid for by Tenant, as evidenced by paid invoices provided to Landlord, Landlord shall have the right to have Landlord's Contribution paid to both Tenant and Tenant's contractor(s) and vendor(s) jointly, or directly to Tenant's contractor if Landlord has reason to believe there are or may be outstanding claims by such contractor(s) or vendor(s).

(iii) The $3,098,242.50 portion of the Landlord's Contribution attributable to the 2nd Floor Space, 4th Floor Space, Additional Space and Mezzanine Space shall be paid as follows: In calendar year 2012, Tenant shall have the right to requisition up to $1,032,747.50 in accordance with this Article 4.2. In each of calendar years 2013 and 2014, Tenant shall have the right to requisition up to (a) $1,032,747.50 plus (b) the then unused amount of Landlord's Contribution allocated to a prior year or years, if any, all in accordance with the terms of this Article 4.2. If in calendar year 2015 or any subsequent calendar year, there remains any unused amount of Landlord's Contribution, Tenant shall have the right to requisition such remaining funds in accordance with the terms of this Article 4.2; provided, however, in no event shall Tenant have the right to requisition such funds at any time after December 31, 2016, unless Tenant exercises the option to extend described in Article 29.14.

(iv) Tenant shall be entitled to a credit against Yearly Rent equal to twenty-five percent (25%) of any unused portion of Landlord's Contribution.

E. Except for Landlord's Contribution, Tenant shall bear all other costs of Tenant's Work. Landlord shall have no liability or responsibility for any claim, injury or damage alleged to have been caused by the particular materials, whether building standard or non-building standard, selected by Tenant in connection with Tenant's Work.

F. If Landlord fails timely to pay any amount properly due to Tenant on account of Landlord's Contribution, and Landlord fails to cure such failure within ten (10) business days of written notice from Tenant, then Tenant shall have the right to deduct such amounts from the next installment(s) of Yearly Rent and other charges due under the Lease.

4.3 Tenant Payments of Construction Cost. Landlord shall have the same rights and remedies which Landlord has upon the nonpayment of Yearly Rent and other charges due under this Lease for nonpayment of any amounts which Tenant is required to pay to Landlord or Landlord's contractor in connection with any construction in the Premises performed for Tenant by Landlord, Landlord's contractor or any other person, firm or entity after the Term Commencement Date, subject to Tenant's right to contest the same in good faith.

4.4 Tenant Early Access. Tenant shall have the right to enter each respective Expansion Space after the Effective Date and prior to the Term Commencement Date for each such Expansion Space, during normal business hours and without payment of rent but with prior notice to the Building property manager, to survey the equipment and systems serving the Expansion Space and to perform Tenant's Work provided such entry must be coordinated so as not to interfere with the completion of Landlord's Work (as hereinafter defined). Any such right of entry shall be subject to all provisions of this Lease (except for payment of rent), and any entry hereunder shall be at the risk of Tenant. Prior to entering any Expansion Space, Tenant shall obtain all insurance Tenant is required to obtain under this Lease as to the Expansion Space and shall provide certificates of said insurance to Landlord. Landlord and Tenant agree to work cooperatively to coordinate the completion of Tenant's Work and Landlord's Work in a timely manner. During the completion of Tenant's Work, Tenant shall have access to the base Building infrastructure as is necessary to complete Tenant's Work provided such access is reasonably approved by Landlord and is coordinated through Landlord in advance of completion. Tenant shall also have the non-exclusive right to use the freight elevators during the construction of Tenant's Work subject to reasonable rules and regulations from time to time made by Landlord including reasonable advanced notice and scheduling.

4.5 Landlord's Work. Landlord shall, at Landlord's sole cost and expense, complete the work

relative to the Expansion Space identified as a Landlord Responsibility Allocation in the table attached hereto as Exhibit 4 and provide and install on the existing roof dunnage (in a location mutually agreed upon by Tenant and Landlord) one (1) new 250 KW natural gas-fired, 60 Hz, three (3) phase, four (4) wire emergency generator (the "250KW Generator"), in a good and workmanlike manner using, where applicable, Landlord's building standard design and construction materials and finishes (collectively, the "Landlord's Work"). Landlord's Work has been broken down into multiple phases as indicated on Exhibit 4 based on the anticipated dates of completion of such work. Landlord shall use commercially reasonable and diligent efforts to complete the Phase 1 Landlord's Work no later than twelve (12) weeks following the Execution Date of this Lease; the Phase 2 Landlord's Work no later than eight (8) weeks following the date Landlord receives Tenant's final specifications and requirements necessary for the completion of such work; the Phase 3 Landlord's Work no later than twenty (20) weeks following the date Landlord receives Tenant's final specifications and requirements necessary for the completion of such work and the Phase 4 Landlord's Work no later than the date Tenant occupies the Expansion Spaces I, II and III for business purposes. Landlord shall make additional dunnage available on the roof of the Building to accommodate a second 250KW emergency generator should Tenant have additional needs as shown on Exhibit 11. Landlord makes no representations or warranties as to the suitability or use of said dunnage for Tenant's specific generator. As part of Phase 2 of Landlord's Work, Landlord shall ensure, and correct as necessary, that any Common Area heat pumps in the Premises are metered for usage on the Building meters and not the Premises meters or submeters. In the event Landlord fails to complete a particular Phase of Landlord's Work by the target dates set forth above, then (a) Tenant shall receive a per diem abatement of Yearly Rent payable with respect to the applicable Expansion Space(s) affected by such Phase of Landlord's Work for each day by which the completion of such Phase extends beyond the target date set forth above, and (b) the Term Commencement Date with respect to the applicable Expansion Space(s) within which or for which such Landlord Work was to be completed shall be delayed one (1) day for each day beyond the applicable target date that Landlord fails to complete the particular Phase of Landlord's Work (unless Tenant occupies such Expansion Space for business purposes in which case the Term Commencement Date for such Expansion Space shall be deemed to have occurred). In the event Landlord fails to complete a particular Phase of Landlord's Work within four (4) months following the respective target date for such Phase set forth above, then Tenant may elect, upon written notice to Landlord, to terminate this Lease with respect to the applicable Expansion Space(s) within which or for

which such Landlord Work was to be completed. Notwithstanding the foregoing, the target dates set forth above for the completion of each Phase of Landlord's Work shall be extended by one (1) day for each day of delay, if any, in the completion of Landlord's Work for such Phase caused by any act or omission of Tenant for each such Phase.

5. USE OF PREMISES

5.1 Permitted Use. Tenant may, during the term hereof, occupy and use the Premises only for the purposes as stated in Exhibit 1 and for no other purposes. Service and utility areas (whether or not a part of the Premises) shall be used only for the particular purpose for which they were designed.

5.2 Prohibited Uses. Notwithstanding any other provision of this Lease, Tenant shall not use, or suffer or permit the use or occupancy of, or suffer or permit anything to be done in or anything to be brought into or kept in or about the Premises or the Building or any part thereof (including, without limitation, any materials appliances or equipment used in the construction or other preparation of the Premises and furniture and carpeting): (i) which would violate any of the covenants; agreements, terms, provisions and conditions of this Lease; (ii) for any unlawful purposes or in any unlawful manner; (iii) which, in the reasonable judgment of Landlord shall in any way (a) impair the appearance or reputation of the Building; or (b) 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 with the use or occupancy of any of the other areas of the Building, or occasion discomfort, inconvenience or annoyance, or injury or damage to any occupants of the Premises or other tenants or occupants of the Building; or (iv) which is inconsistent with the maintenance of the Building as an office and laboratory building of the first class in the quality of its maintenance, use, or occupancy. Landlord acknowledges that the use of the Premises for the Permitted Use stated in Exhibit 1 (as opposed to the manner of use of the Premises by Tenant, even if such manner of use is a Permitted Use) will not breach the provisions of the preceding sentence. Tenant shall not install or use any electrical or other equipment of any kind which, in the reasonable judgment of Landlord, might cause any such impairment, interference, discomfort, inconvenience, annoyance or injury.

5.3 Licenses and Permits. If any governmental license or permit shall be required for the proper and

lawful conduct of Tenant's business, and if the failure to secure such license or permit would in any way affect Landlord, the Premises, the Building or Tenant's ability to perform any of its obligations under this Lease, Tenant, at Tenant's expense, shall duly procure and thereafter maintain such license and submit the same to inspection by Landlord. Tenant, at Tenant's expense, shall at all times comply with the terms and conditions of each such license or permit. Tenant shall furnish all data and information to governmental authorities and Landlord as required in accordance with legal, regulatory, licensing or other similar requirements as they relate to Tenant's use or occupancy of the Premises or the Building.

6. RENT

During the term of this Lease the Yearly Rent and other charges, at the rate stated in Exhibit 1, shall be payable by Tenant to Landlord by monthly payments, as stated in Exhibit 1, in advance and without demand on the first day of each month for and in respect of such month. The rent and other charges reserved and covenanted to be paid under this Lease shall commence on the Execution Date with regard to the Existing Lab/Office Premises and the Storage Space and on the respective Expansion Space Commencement Date with regard to Expansion Spaces I, II, and III. If, by reason of any provisions of this Lease, the rent reserved hereunder shall commence or terminate on any day other than the first day of a calendar month, the rent for such calendar month shall be prorated. The rent shall be payable to Landlord or, if Landlord shall so direct in writing, to Landlord's agent or nominee, in lawful money of the United States which shall be legal tender for payment of all debts and dues, public and private, at the time of payment, at the office of the Landlord or such place as Landlord may designate, and the rent and other charges in all circumstances shall be payable without any setoff or deduction whatsoever. Rental and any other sums due hereunder not paid on or before the date due shall bear interest from the due date until paid computed at the annual rate of five percentage points over the so-called prime rate then currently from time to time charged to its most favored corporate customers by the largest national bank (N.A.) located in the city in which the Building is located, or at any applicable lesser maximum legally permissible rate for debts of this nature.

7. RENTABLE AREA

The Total Rentable Area of the Premises, the Building and the Complex are agreed to be the amounts set forth in Exhibit 1. Landlord reserves the right, throughout the term of the Lease, to recalculate the Total Rentable Area of the Building and/or the Complex and Tenant's Proportionate Common Area and Building Shares shall be adjusted accordingly.

8. SERVICES FURNISHED BY LANDLORD

8.1 Electric Current

(a) Commencing as of the Execution Date, and continuing thereafter throughout the term of this Lease, Landlord will require Tenant to contract with the company supplying electric current for the purchase and obtaining by Tenant of electric current directly from such company to be billed directly to, and paid for by, Tenant. The Premises are separately metered to measure the consumption of electricity for plugs, lights and heat pumps and other supplemental HVAC equipment providing HVAC services to the Premises. Notwithstanding the foregoing, the electricity consumed by the electric light fixture in the Basement Premises is measured by the base building electric meter. Landlord shall provide electricity to such electric light fixture throughout the term of the Lease, and the cost of such electricity shall be included in Operating Costs.

(b) If Tenant shall require electric current for use in the Premises in excess of such reasonable quantity to be furnished for such use as hereinabove provided and if (i) in Landlord's reasonable judgment, Landlord's facilities are inadequate for such excess requirements or (ii) such excess use shall result in an additional burden on the Building air conditioning system and additional cost to Landlord on account thereof then, as the case may be, (x) Landlord upon written request and at the sole cost and expense of Tenant, will furnish and install such additional wire, conduits, feeders, switchboards and appurtenances as reasonably may be required to supply such additional requirements of Tenant if current therefor be available to Landlord, provided that the same shall be permitted by applicable laws and insurance regulations and shall not cause damage to the Building or the Premises or cause or create a dangerous or hazardous condition or entail excessive or unreasonable alterations or repairs or interfere with or disturb other tenants or occupants of the Building or (y) Tenant shall reimburse Landlord

for such additional cost, as aforesaid.

(c) Landlord, at Tenant's expense and upon Tenant's request, shall purchase and install all replacement lamps of types generally commercially available (including, but not limited to, incandescent and fluorescent) used in the Premises.

(d) Subject to Article 8.6, Landlord shall not in any way be liable or responsible to Tenant for any loss, damage or expense which Tenant may sustain or incur if the quantity, character, or supply of electrical energy is changed or is no longer available or suitable for Tenant's requirements.

(e) Tenant agrees that it will not make any material alteration or material addition to the electrical service equipment in the Premises without the prior written consent of Landlord in each instance first obtained, which consent will not be unreasonably withheld, and will promptly advise Landlord of any other alteration or addition to such electrical service equipment.

8.2 Water. Landlord shall furnish hot and cold water for ordinary premises, cleaning, toilet, lavatory and drinking purposes. If Tenant requires, uses or consumes water for any purpose other than for the aforementioned purposes, Landlord may (i) assess a reasonable charge for the additional water so used or consumed by Tenant or (ii) install a water meter and thereby measure Tenant's water consumption for all purposes. In the latter event, Landlord shall pay the cost of the meter and the cost of installation thereof and shall keep said meter and installation equipment in good working order and repair. Tenant agrees to pay for water consumed, as shown on said meter, together with the sewer charge based on said meter charges, as and when bills are rendered, and on default in making such payment Landlord may pay such charges and collect the same from Tenant. All piping and other equipment and facilities for use of water outside the building core which exclusively benefit Tenant will be installed and maintained by Tenant at Tenant's sole cost and expense.

8.3 Elevators, Heat, Air Conditioning, and Cleaning.

(a) Landlord at its expense shall: (i) provide necessary elevator facilities (which may be manually or automatically operated, either or both, as Landlord may from time to time elect) on Mondays through Fridays, excepting legal holidays, from 8:00 a.m. to 6:00 p.m. and on Saturdays, excepting legal holidays, from 8:00 a.m. to 1:00 p.m. (called "business days") and have one elevator in operation available for Tenant's use, non-exclusively, together with others having business in the Building, at all other times; (ii) furnish heat (substantially equivalent to that being furnished in comparable office and laboratory buildings in the same city) to the common areas during the normal heating season on business days; (iii) furnish to and distribute to the common areas air conditioning as normal seasonal changes may require on business days during the hours as aforesaid when air conditioning may reasonably be required for the comfortable occupancy of the common areas, (iv) furnish condenser water from the Building's common condenser water system to the heat pumps serving the Premises, twenty-four hours per day, seven days per week throughout the term; and (v) cause the common areas of the Building to be cleaned on business days (i.e., Monday through Friday) in a manner consistent with cleaning standards generally prevailing in first-class office and laboratory buildings in the City of Cambridge. Tenant shall be responsible, at its sole cost and expense, for providing cleaning and janitorial services to the Premises in a neat and first-class manner consistent with the cleaning standards generally prevailing in first-class office and laboratory buildings in the City of Cambridge or as otherwise reasonably established by Landlord in writing from time to time using an insured contractor or contractors selected by Tenant and reasonably approved in writing by Landlord and such provider shall not interfere with the use and operation of the Building or Complex by Landlord or any other tenant or occupant thereof.

(b) Access. So long as Tenant shall comply with Landlord's reasonable security program for the Building, Tenant shall have access to the Premises and the Garage twenty-four (24) hours per day, seven (7) days per week, during the term of this Lease, except in an emergency or in the event of a temporary closure due to a casualty or necessary repairs.

(c) Tenant acknowledges and agrees that the heat pumps providing HVAC services to the Premises shall be separately metered and Tenant shall be required to pay for the cost of all utilities used by such heat pumps during the term of the Lease.

8.4 Additional Air Conditioning Equipment. In the event Tenant requires additional air conditioning for business machines, meeting rooms or other special purposes, or because of occupancy or excess electrical loads, any additional air conditioning units, chillers, condensers, compressors, ducts, piping and other equipment, such additional air conditioning equipment will be installed, but only if, in Landlord's reasonable judgment, the same will not cause damage or injury to the Building or create a dangerous or hazardous condition or entail excessive or unreasonable alterations, repairs or expense or interfere with or disturb other tenants. At Landlord's sole election, such equipment will either be installed:

(a) by Landlord at Tenant's expense and Tenant shall reimburse Landlord in such an amount as will compensate it for the cost incurred by it in operating, maintaining, repairing and replacing, if necessary, such additional air conditioning equipment; or

(b) by Tenant, subject to Landlord's prior approval of Tenant's plans and specifications for such work. In such event: (i) such equipment shall be maintained, repaired and replaced by Tenant at Tenant's sole cost and expense, and (ii) throughout the term of this Lease, Tenant shall, at Tenant's sole cost and expense, purchase and maintain a service contract for such equipment from a service provider approved by Landlord. Tenant shall obtain Landlord's prior written approval of both the form of service contract and of the service provider.

8.5 Repairs. Except as otherwise provided in Articles 18 and 20, and subject to Tenant's related obligations in Article 14, Landlord shall keep and maintain the foundation, roof, exterior walls, structural floor slabs, columns, other structural elements, elevators, public stairways and corridors, public lavatories, equipment (including, without limitation, sanitary, electrical, heating, air conditioning, sprinkler, plumbing or other systems) and other common facilities of both the Building and the Common Areas ("Landlord Maintenance Areas") in good condition and repair. Landlord shall keep the paved portions of the Common Areas reasonably free of ice and snow. Subject to Articles 15.5 and 19, Landlord shall repair any damage to the Premises caused by defects in the Landlord Maintenance Areas.

8.6 Interruption or Curtailment of Services. (a) When necessary by reason of accident or emergency, or for repairs, alterations, replacements or improvements which in the reasonable judgment of Landlord are desirable or necessary to be made, or of difficulty or inability in securing supplies or labor, or of strikes, or of any other cause beyond the reasonable control of Landlord, whether such other cause be similar or dissimilar to those hereinabove specifically mentioned until said cause has been removed, Landlord reserves the right to interrupt, curtail, stop or suspend (i) the furnishing of heating, elevator, air conditioning, and cleaning services and (ii) the operation of the plumbing and electric systems. Landlord shall exercise reasonable diligence to

minimize and eliminate, as soon as reasonably possible, the cause of any such interruption, curtailment, stoppage or suspension, but, except as set forth in Articles 8.6 and 15.6, there shall be no diminution or abatement of rent or other compensation due from Landlord to Tenant hereunder, nor shall this Lease be affected or any of the Tenant's obligations hereunder reduced, and the Landlord shall have no responsibility or liability for any such interruption, curtailment, stoppage, or suspension of services or systems.

(b) Notwithstanding anything to the contrary in this Lease contained, if the Premises shall lack any service which Landlord is required to provide hereunder (thereby rendering the Premises or a portion thereof untenantable) (a "Service Interruption") so that, for the Landlord Service Interruption Cure Period, as hereinafter defined, the continued operation in the ordinary course of Tenant's business is materially adversely affected and if Tenant ceases to use the affected portion of the Premises during the period of untenantability as the direct result of such lack of service, then, provided that Tenant ceases to use the affected portion of the Premises during the entirety of the Landlord Service Interruption Cure Period and that such untenantability and Landlord's inability to cure such condition is not caused by the fault or neglect of Tenant or Tenant's agents, employees or contractors, Yearly Rent, Operating Expense Share and Tax Share shall thereafter be abated in proportion to such untenantability until the day such condition is completely corrected.

For the purposes hereof, the "Landlord Service Interruption Cure Period" shall be defined as five (5) consecutive business days after Landlord's receipt of written notice from Tenant of the condition causing untenantability in the Premises, provided however, that the Landlord Service Interruption Cure Period shall be ten (10) consecutive business days after Landlord's receipt of written notice from Tenant of such condition causing untenantability in the Premises if either the condition was caused by causes beyond Landlord's control or Landlord is unable to cure such condition as the result of causes beyond Landlord's control.

(c) The provisions of Paragraph b of this Article 8.6 shall not apply in the event of untenantability caused by fire or other casualty, or taking (see Articles 18 and 20). The remedies set forth in this Article 8.6 shall be Tenant's sole remedies in the event of a Service Interruption.

8.7 Energy Conservation. Notwithstanding anything to the contrary in this Article 8 or in this Lease contained, Landlord may institute, and Tenant shall comply with, such policies, programs and measures as may be necessary or required in order to comply with applicable governmental laws, ordinances, rules and regulations.

8.8 Gas in Respect of the Laboratory Premises. Landlord will require Tenant to contract with the company supplying gas to the laboratory portions of the Premises for the purchase and obtaining by Tenant of gas directly from such company to be billed directly to, and paid for by, Tenant.

8.9 Basement Premises. Landlord shall have no obligation to provide services to the Basement Premises, except for access (as provided in Article 8.3(b)), water (in accordance with Article 8.2), and electricity (in accordance with Article 8.1).

8.10 Miscellaneous. Other than air conditioning, all services provided by Landlord to Tenant are based upon an assumed maximum premises population of one person per two hundred (200) square feet of Total Rentable Area, which limit Tenant shall in no event exceed.

9. ESCALATION

9.1 Definitions. As used in this Article 9, the words and terms which follow mean and include the following:

(a) "Operating Year" shall mean a calendar year in which occurs any part of the term of this Lease.

(b) "Tenant's Proportionate Building Share" shall be the figures as stated in Exhibit 1. Tenant's Proportionate Building Share is the ratio of the Total Rentable Area of the Premises (exclusive of the Basement Premises and Storage Space) to the aggregate Total Rentable Area of the Building. Tenant's obligation to pay Tenant's Proportionate Building Share with regard to each respective Expansion Space shall commence of each of the respective Expansion Space Commencement Dates.

(c) "Tenant's Proportionate Common Area Share" shall initially be the figure as stated in Exhibit 1. Tenant's Proportionate Common Area Share is the ratio of the Total Rentable Area of the Premises (exclusive of the Basement Premises and Storage Space) to the aggregate Total Rentable Area, from time to time, of all buildings within the Complex which have been completed and for which a certificate of occupancy has been issued. As additional buildings are completed within the Complex, Tenant's Proportionate Common Area Share shall be adjusted to equal the then current ratio of the Total Rentable Area of the Premises (exclusive of the Basement Premises and Storage Space) to the aggregate Total Rentable Area within the Complex which is then completed and as to which a certificate of occupancy is issued. Tenant's obligation to pay Tenant's Proportionate Common Area Share with regard to each respective Expansion Space shall commence as of each of the respective Expansion Space Commencement Dates.

(d) "Taxes" shall mean the real estate taxes and other taxes, levies and assessments imposed upon the Building and the Common Areas of the Complex and upon any personal property of Landlord used in the operation thereof, or Landlord's interest in the Building, the Common Areas, or such personal property; charges, fees and assessments for transit, housing, police, fire or other governmental services or purported benefits to the Building and/or the Common Areas; service or user payments in lieu of taxes; and any and all other taxes, levies, betterments, assessments and charges arising from the ownership, leasing, operating, use or occupancy of the Building, the Common Areas or based upon rentals derived therefrom, which are or shall be imposed by National, State, Municipal or other authorities. In the event that any betterment or other special assessments may, at the option of the taxpayer, be paid in installments over a period longer than one year, then the same shall be deemed paid in installments over the maximum period permitted by the taxing authority, and Tenant's obligation for any one tax fiscal year to pay its proportionate share of such assessments shall only apply to those installments that become actually due and payable (i.e., failing which payment the same would become delinquent), together with the interest

charged thereon by the governmental authority, during that same fiscal tax year. "Taxes" shall not include any franchise, rental, income or profit tax, capital levy or excise, provided, however, that any of the same and any other governmental tax, excise, fee, levy, charge or assessment, however described, that may in the future be levied or assessed as a substitute for or an addition to, in whole or in part, any tax, levy or assessment which would otherwise constitute "Taxes," whether or not now customary or in the contemplation of the parties on the Execution Date of this Lease, shall constitute "Taxes," but only to the

extent calculated as if the Complex is the only real estate owned by Landlord. "Taxes" shall also include expenses of tax abatement or other proceedings contesting assessments or levies. The parties acknowledge that, as of the Execution Date, Taxes are based upon several separate tax bills affecting the Complex. Taxes shall be allocated by Landlord, in Landlord's reasonable judgment, consistently applied among the Building (the portion of Taxes allocable to the Building being referred to herein as "Building Taxes"), the other buildings of the Complex, and the Common Areas (the portion of Taxes allocable to the Common Areas being referred to herein as "Common Area Taxes"). Taxes shall exclude interest or penalties arising from the late payment of Taxes, except to the extent the same arise from Tenant's late payment of Tax Share as required hereunder. Notwithstanding the foregoing, Taxes shall also exclude: (x) any Taxes attributable to the Garage, and (y) the entire increase in real estate taxes on the Building which are: (i) attributable to any alteration, addition or improvement made within the Premises of another tenant or Tenant, (ii) which are solely for the benefit of such tenant or Tenant, (Hi) which are in excess the level of improvement in the Premises as of the Execution Date of this Lease, and (iv) only to the extent that it is determinable from the records of the assessing authority that such increase in Taxes is based solely upon such alteration, addition or improvement. Without limiting the foregoing, for any Tax Period in which the assessing authority determines the assessed value of the Building and the land based upon an income approach, then the immediately preceding sentence shall not apply.

(e) "Tax Period" shall be any fiscal/tax period in respect of which Taxes are due and payable to the appropriate governmental taxing authority, any portion of which period occurs during the term of this Lease, the first such Period being the one in which the Execution Date occurs.

(f) "Operating Costs":

1. Definition of Operating Costs. "Operating Costs" shall mean all costs incurred and expenditures of whatever nature made by Landlord in the operation and management, for repair and replacements, cleaning and maintenance of the Building, the Complex, and the Common Areas of the Complex including, without limitation, vehicular and pedestrian passageways that are a part of the Complex, related equipment, facilities and appurtenances, elevators, cooling and heating equipment. In the event that Landlord or Landlord's managers or agents perform services for the benefit of the Complex off-site which would otherwise be performed on-site (e.g., accounting), the cost of such services shall be reasonably allocated among the properties benefiting from such service and shall be included in Operating Costs. Operating Costs shall include, without limitation, those categories of "Specifically Included Operating Costs," as set forth below, but shall not include "Excluded Costs," as hereinafter defined.

2. Definition of Excluded Costs. "Excluded Costs" shall be defined as:

(i) mortgage charges,

(ii) brokerage commissions,

(iii) salaries of employees, executives and owners not directly employed in the management/operation of the Complex,

(iv) the cost of work done by Landlord for a particular tenant for which Landlord has the right to be reimbursed by such Tenant,

(v) subject to Subparagraph (3) below, such portion of expenditures as are not properly chargeable against income,

(vi) interest, principal, or other payments or loans or other indebtedness,

except to the extent that the same are included in the Annual Charge-Off for capital expenditures which are permitted to be included in Operating Costs pursuant to Article 9.1(f)(3),

(vii) costs of leasehold improvements or other improvements made for tenants or other occupants of the Building,

(viii) refinancing costs, except to the extent that the same are included in the Annual Charge-Off for capital expenditures which are permitted to be included in Operating Costs pursuant to Article 9.1(f)(3),

(ix) any costs that are actually reimbursed to Landlord by third parties (including insurance proceeds),

(x) transfer, gains, franchise, inheritance, estate and income taxes,

(xi) fixed or percentage ground rent, if any, under any superior lease,

(xii) closing costs related to the sale of all or part of the Building,

(xiii) concessions given by Landlord in connection with leasing of space in the Building,

(xiv) the cost of any legal expense, judgment, settlement, or arbitration award based on damages caused by Landlord's negligence or other wrongful conduct,

(xv) costs of furnishing services or supplies or other property to any individual tenant of the Building to the extent the same exceeds the services or supplies or other property generally provided to tenants of the Building without additional charge,

(xvi) any costs or expenses required based upon the non-compliance of the Building or the Complex with applicable laws, ordinances or governmental rules and regulations in effect as of the Execution Date of this Lease,

(xvii) depreciation or amortization , except to the extent that the same are included in the Annual Charge-Off for capital expenditures which are permitted to be included in Operating Costs pursuant to Article 9.1(f)(3),

(xviii) replacement reserves,

(xix) costs and expenses of investigating, monitoring and remediating hazardous materials on, under or about the Complex, provided however, that the provisions of this clause (xix) shall not preclude the inclusion of such costs and expenses with respect to: (a) materials which exist in the Complex as of the Execution Date of this Lease, which are not, as of the Execution Date of this Lease, deemed to be hazardous materials, and which are subsequently deemed, as a matter of law, to be hazardous materials; and (b) materials which are introduced to the Complex after the Execution Date of this Lease, which are not, as of the date of such introduction, deemed to be hazardous materials, and which are subsequently deemed, as a matter of law, to be hazardous materials,

(xx) any fines or penalties incurred by Landlord due to the violation by Landlord of any law,

(xxi) Taxes, and

(xxii) Any costs in connection with the operation or maintenance of the Garage.

3. Capital Expenditures.

(i) Limitation. Notwithstanding anything to the contrary in this Lease contained, capital expenditures shall be included in Operating Costs only if either:

1. the capital item is required by law, ordinance or regulation which first becomes effective after the Execution Date of this Lease

2. the capital item is reasonably projected to reduce Operating Costs (i.e. taking into account the Annual Charge-Off included in Operating Costs on account of such capital item.

(ii) Annual Charge-Off. “Annual Charge-Off’ shall be defined as the annual amount of principal and interest payments which would be required to repay a loan (“Capital Loan”) in equal monthly installments over the Useful Life, as hereinafter defined, of the capital item in question on a direct reduction basis at an annual interest rate equal to the Capital Interest Rate, as hereinafter defined, where the initial principal balance is the cost of the capital item in question. Notwithstanding the foregoing, if Landlord reasonably concludes on the basis of engineering estimates that a particular capital expenditure will effect savings in Building operating expenses including, without limitation, energy-related costs, and that such projected savings will, on an annual basis (“Projected Annual Savings”), exceed the Annual Charge-Off of such capital expenditure computed as aforesaid, then and in such events, the Annual Charge-Off shall be increased to an amount equal to the Projected Annual Savings; and in such circumstances, the increased Annual Charge-Off (in the amount of the Projected Annual Savings) shall be made for such period of time as it would take to fully amortize the cost of the capital item in question, together with interest thereon at the Capital Interest Rate as aforesaid, in equal monthly payments, each in the amount of one-twelfth (1/12th) of the Projected Annual Savings, with such payments being applied first to interest and the balance to principal.

(iii) Useful Life. “Useful Life” shall be reasonably determined by Landlord in accordance with generally accepted accounting principles and practices in effect at the time of acquisition of the capital item.

(iv) Capital Interest Rate. “Capital Interest Rate” shall be defined as an annual rate of either one percentage point over the AA Bond rate (Standard & Poor’s corporate composite or, if unavailable, its equivalent) as reported in the financial press at the time the capital expenditure is made or, if the capital item is acquired through third-party financing, then the actual (including fluctuating) rate paid by Landlord in financing the acquisition of such capital item.

4. Specifically Included Categories of Operating Costs. Operating Costs shall include, but not be limited to, the following:

Taxes (other than real estate taxes): Federal Social Security, Unemployment and Old Age Taxes and contributions and State Unemployment taxes and contributions accruing to and paid by the Landlord on account of all employees

of Landlord and/or Landlord’s managing agent, who are employed in, about or on account of the Complex, except that taxes levied upon the net income of the Landlord and taxes withheld from employees, and “Taxes” as defined in Article 9.1(d) shall not be included herein.

Water: All charges and rates connected with water supplied to the Building and related sewer use charges.

Heat and Air Conditioning: All charges connected with heat and air conditioning supplied to the Building.

Wages: Wages and cost of all employee benefits of all employees of the Landlord and/or Landlord’s managing agent who are employed in, about or on account of the Building.

Cleaning: The cost of labor and material for cleaning the Building, surrounding areaways and windows in the Building.

Elevator Maintenance: All expenses for or on account of the upkeep and maintenance of all elevators in the Building (subject, however, to Article 9.1(f)(3)

Management Fee: The cost of professional management of the Building, not to exceed in any Operating Year an amount equal to three percent (3%) of gross income from the Building received by Landlord during such Operating Year (subject to adjustment pursuant to Paragraph 6 of this Article 9.1(f).

Administrative Costs: The cost of office expense, including, without limitation, rent, business supplies and equipment.

Electricity: The cost of all electric current for the operation of any machine, appliance or device used for the operation of the Premises and the Building, including the cost of electric current for the elevators, lights, air conditioning and heating, but not including electric current which is paid for directly to the utility by the user/tenant in the Building. (If and so long as Tenant is billed directly by the electric utility for its own consumption as determined by its separate meter, or billed directly by Landlord as determined by a check meter, then Operating Costs shall include only Building and public area electric current consumption and not any demised premises electric current consumption. Wherever separate metering is unlawful, prohibited by utility company regulation or tariff or is otherwise impracticable, relevant consumption figures for the purposes of this Article 9 shall be determined by fair and reasonable allocations and engineering estimates made by Landlord.

Insurance, etc.: Fire, casualty, liability, rent loss and such other insurance as may from time to time be required by lending institutions on first-class office buildings in the City or Town wherein the Building is located and, subject to the provisions of this Article 9.1(f), all other expenses customarily incurred in connection with the operation and maintenance of first-class office buildings in the City or Town wherein the Building is located including, without limitation, insurance deductible amounts and rental costs associated with the Building's management office.

5. Definitions of Building Operating Costs and Common Area Operating Costs. "Building Operating Costs" shall be defined as the amount of Operating Costs allocable to the Building in any Operating Year. "Common Area Operating Costs" shall be defined

as the amount of Operating Costs allocable to the Common Areas in any Operating Year. All Operating Costs incurred by Landlord in respect of the Complex shall be allocated, in Landlord's reasonable judgment, consistently applied among the Building, the other buildings of the Complex, and the Common Areas.

6. Gross-Up Provision. Notwithstanding the foregoing, in determining the amount of Operating Costs for any calendar year or portion thereof falling within the term, if less than ninety-five percent (95%) of the Rentable Area of the Building shall have been occupied by tenants at any time during the period in question, then, at Landlord's election, Operating Costs for such period shall be adjusted to equal the amount Operating Costs would have been for such period had occupancy been ninety-five percent (95%) throughout such period. The extrapolation of Operating Costs under this paragraph shall be performed by appropriately adjusting the cost of those components of Operating Costs that are impacted by changes in the occupancy of the Building.

9.2 Tax Share. Commencing as of the Commencement Date in respect of each portion of the Premises and continuing thereafter with respect to each Tax Year occurring during the term of the Lease, Tenant shall pay to Landlord, with respect to any Tax Period, the sum of: (x) Tenant's Proportionate Building Share with respect to such portion of the Premises of Building Taxes for such Tax Period, plus (y) Tenant's Proportionate Common Area Share with respect to such portion of the Premises of Common Area Taxes for such Tax Period, such sum being hereinafter referred to as "Tax Share". Tax Share shall be due within thirty (30) days after the time when billed by Landlord. In implementation and not in limitation of the foregoing, Tenant shall remit to Landlord pro rata monthly installments on account of projected Tax Share, calculated by Landlord on the basis of the most recent Tax data or budget available. If the total of such monthly remittances on account of any Tax Period is greater than the actual Tax Share for such Tax Period, Tenant may credit the difference against the next installment of rental or other charges due to Landlord hereunder, except that if such difference is determined after the end of the term of the Lease, Landlord shall refund such difference to Tenant to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If the total of such remittances is less than the actual Tax Share for such Tax Period, Tenant shall pay the difference to Landlord within thirty (30) days after the time when billed therefor.

Appropriate credit against Tax Share shall be given for any refund obtained by reason of a reduction in any Taxes by the Assessors or the administrative, judicial or other governmental agency responsible therefor, or otherwise. The original computations, as well as reimbursement or payments of additional charges, if any, or allowances, if any, under the provisions of this Article 9.2 shall be based on the original assessed valuations to the extent paid by Landlord, with adjustments to be made at a later date when the tax refund, if any, shall be paid to Landlord by the taxing authorities. Expenditures for legal fees and for other similar or dissimilar expenses incurred in obtaining the tax refund may be charged against the tax refund before the adjustments are made for the Tax Period.

9.3 Operating Expense Share. Commencing as of the Commencement Date in respect of each portion of the Premises and continuing thereafter with respect to each Operating Year occurring during the term of the Lease with respect to such portion of the Premises, Tenant shall pay to Landlord, with respect to any Operating Year, the sum of: (x) Tenant's Proportionate Building Share with respect to such portion of the Premises of Building Operating Costs for such Operating Year, plus (y) Tenant's Proportionate Common Area Share with respect to such portion of the Premises of Common Area Operating Costs for such Operating Year, such sum being hereinafter referred to as "Operating Expense Share". In implementation and not in limitation of the foregoing, Tenant shall remit to Landlord pro rata monthly installments on account of projected Operating Expense Share, calculated by Landlord on the basis of the most recent Operating Costs data or budget available. If the total of such monthly remittances on account of any Operating Year is greater than the actual Operating Expense Share for such Operating Year, Tenant may credit the difference against the next installment of rent or other charges due to Landlord hereunder, except that if such difference is determined after the end of the term of the Lease, Landlord shall refund such difference to Tenant to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If the total of such remittances is less than actual Operating Expense Share for such Operating Year, Tenant shall pay the difference to Landlord within thirty (30) days after the time when billed therefor.

9.4 Part Years. If a particular Commencement Date or the Termination Date occurs in the middle of

an Operating Year or Tax Period, Tenant shall be liable for only that portion of the Operating Expense or Tax Share, as the case may be, in respect of such Operating Year or Tax Period represented by a fraction the numerator of which is the number of days of the herein term after such Commencement Date or prior to the Termination Date which falls within the Operating Year or Tax Period and the denominator of which is three hundred sixty-five (365), or the number of days in said Tax Period, as the case may be.

9.5 Effect of Taking. In the event of any taking of the Building or the land upon which it stands under circumstances whereby this Lease shall not terminate under the provisions of Article 20 then, Tenant's Proportionate Building Share and Tenant's Proportionate Common Area Share shall be adjusted appropriately to reflect the proportion of the Premises and/or the Building remaining after such taking.

9.6 Survival. Any obligations under this Article 9 which shall not have been paid at the expiration or sooner termination of the term of this Lease shall survive such expiration and shall be paid when and as the amount of same shall be determined to be due.

9.7 Tenant's Audit Right. Subject to the provisions of this paragraph, Tenant shall have the right, at Tenant's cost and expense, to examine all documentation and calculations prepared in the determination of Operating Expense Share:

1. Such documentation and calculation shall be made available to Tenant at the offices where Landlord keeps such records during normal business hours within a reasonable time after Landlord receives a written request from Tenant to make such examination.

2. Tenant shall have the right to make such examination no more than once in respect of any period in which Landlord has given Tenant a statement of the actual amount of Operating Costs.

3. Any request for examination in respect of any Operating Year may be made no more than one hundred twenty (120) days after Landlord advises Tenant of the actual amount of Operating Costs in respect of such period.

4. Such examination may be made only by a qualified lease auditor with at least five years experience approved by Landlord, which approval shall not be unreasonably withheld. Without limiting Landlord's approval rights, Landlord may withhold its approval of any examiner of Tenant who is being paid by Tenant on a contingent fee basis.

5. 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 acceptable to Landlord, agreeing to keep confidential any information which it discovers about Landlord or the Building in connection with such examination.

6. If, after the audit by Tenant of Landlord's books and records pursuant to this Article 9.7 with respect to any calendar year, it is finally determined that: (i) Tenant has made an overpayment on account of Operating Expense Share, Landlord shall credit such overpayment against the next installment(s) of Yearly Rent thereafter payable by Tenant, except that if such overpayment is determined after the termination or expiration of the Term, Landlord shall promptly refund to Tenant the amount of such overpayment less any amounts then due from Tenant to Landlord; and (ii) Tenant has made an underpayment on account of Operating Expense Share, Tenant shall, within thirty (30) days of such determination, pay such underpayment to Landlord.

7. If, after performing any such audit, it is finally determined that Operating Costs for the calendar year under audit were overstated by more than five (5%) percent, then Landlord shall reimburse Tenant the lesser of: (x) $5,000, or (y) the reasonable out-of-pocket costs incurred by Tenant in performing such audit.

10. CHANGES OR ALTERATIONS BY LANDLORD

Landlord reserves the right, exercisable by itself or its nominee, at any time and from time to time without the same constituting an actual or constructive eviction and without incurring any liability to Tenant therefor or otherwise affecting Tenant's obligations under this Lease, to make such changes, alterations, additions, improvements, repairs or replacements in or to: (i) the Building (including the Premises) (provided, however, that Landlord shall not make any changes, alterations, additions or improvements within the Premises without obtaining

Tenant's prior consent, which consent shall not be unreasonably withheld, conditioned or delayed) and the fixtures and equipment thereof, (ii) the street entrances, halls, passages, elevators, escalators, and stairways of the Building, and (iii) the Common Areas, and facilities located therein, as Landlord may deem necessary or desirable, and to change the arrangement and/or location of entrances or passageways, doors and doorways, and corridors, elevators, stairs, toilets, or other public parts of the Building and/or the Common Areas, provided, however, that there be no unreasonable obstruction of the right of access to, or unreasonable interference with the use and enjoyment of, the Premises by Tenant. Nothing contained in this Article 10 shall be deemed to relieve Tenant of any duty, obligation or liability of Tenant with respect to making any repair, replacement or improvement or complying with any law, order or requirement of any governmental or other authority to the extent required by this Lease. Landlord reserves the right to adopt and at any time and from time to time to change the name or address of the Building. Neither this Lease nor any use by Tenant shall give Tenant any right or easement for the use of any door, passage, concourse, walkway or parking area within the Building (excluding those located within the Premises) or in the Common Areas, and the use of such doors, passages, concourses, walkways, parking areas and such conveniences may be regulated or discontinued at any time and from time to time by Landlord without notice to Tenant and without affecting the obligation of Tenant hereunder or incurring any liability to Tenant therefor, provided, however, that there be no unreasonable obstruction of the right of access to, or unreasonable interference with the use and enjoyment of the Premises by Tenant.

If at any time any windows of the Premises are temporarily closed or darkened for any reason whatsoever including but not limited to, Landlord's own acts, Landlord shall not be liable for any damage Tenant may sustain thereby and Tenant shall not be entitled to any compensation therefor nor abatements of rent nor shall the same release Tenant from its obligations hereunder nor constitute an eviction.

11. FIXTURES, EQUIPMENT AND IMPROVEMENTS—REMOVAL BY TENANT

All fixtures, equipment, improvements and appurtenances attached to or built into the Premises prior to or during the term, whether by Landlord at its expense or at the expense of Tenant (either or both) or by Tenant shall be and remain part of the Premises and shall not be removed by Tenant during or at the end of the term unless Landlord has the right to elect and does elect to require Tenant to remove such fixtures, equipment, improvements and appurtenances, at the time that Landlord approves Tenant's plans for the installation of the same in accordance with Article 12 of the Lease. All electric, plumbing, heating and sprinkling systems, fixtures and outlets, vaults, paneling, molding, radiator enclosures, cork, rubber, linoleum and composition floors, ventilating, silencing, air conditioning and cooling equipment, shall be deemed to be included in such fixtures, equipment, improvements and appurtenances, whether or not attached to or built into the Premises, subject to the provisions of the next following sentence. Where not built into the Premises, all removable electric fixtures, carpets, drinking or tap water facilities, furniture, or trade fixtures or business equipment or Tenant's inventory or stock in trade as well as those items listed on Exhibit 8A hereto ("Tenant's Removable Property") shall not be deemed to be included in such fixtures, equipment, improvements and appurtenances and may be, and upon the request of Landlord will be, removed by Tenant upon the condition that such removal shall not materially damage the Premises or the Building and that the cost of repairing any damage to the Premises or the Building arising from installation or such removal shall be paid by Tenant.

12. ALTERATIONS AND IMPROVEMENTS BY TENANT

(a) Tenant shall make no alterations, decorations, installations, removals, additions or improvements in or to the Premises without Landlord's prior written consent, and then only made by contractors or mechanics approved by Landlord. No installations or work shall be undertaken or begun by Tenant until: (i) Landlord has approved written plans and specifications and a projected time schedule for such work; (ii) Tenant has made provision for either written waivers of liens from all contractors, laborers and suppliers of materials for such installations or work, the filing of lien bonds on behalf of such contractors, laborers and suppliers, or other appropriate protective measures approved by Landlord; and (iii) with respect to such work in excess of One Hundred Thousand and 00/100 ($100,000.00) Dollars, Tenant has procured appropriate surety payment and performance bonds. No material amendments or additions to such plans and specifications shall be made without the prior written consent of Landlord.

(b) Any consent or approval of Landlord required under this Article 12 shall not be unreasonably withheld, conditioned or delayed. Landlord's approval is solely given for the benefit of Landlord and neither Tenant nor any third party shall have the right to rely upon Landlord's approval of Tenant's plans for any purpose whatsoever. Without limiting the foregoing, Landlord shall not be responsible for any elements of the design of Tenant's plans (including, without limitation, compliance with law, functionality of design, the structural integrity of the design, the configuration of the Premises and the placement of Tenant's furniture, appliances and equipment), and Landlord's approval of Tenant's plans shall in no event impose on Landlord any responsibility for such design. Landlord shall have no liability or responsibility for any claim, injury or damage alleged to have been caused by the particular materials, whether building standard or non-building standard, appliances or equipment selected by Tenant in connection with any work performed by or on behalf of Tenant in the Premises including, without limitation, furniture, carpeting, copiers, laser printers, computers and refrigerators.

(c) Any such work, alterations, decorations, installations, removals, additions and improvements shall be done at Tenant's sole expense (except for Landlord's Contribution pursuant to Article 4.2 above), subject to such reasonable restrictions as to times and manner of construction as Landlord may from time to time designate.

(d) If Tenant shall make any alterations, decorations, installations, removals, additions or improvements (collectively "Alterations") then Landlord may elect, at the time that Landlord approves Tenant's plans for any such alterations, etc., to require the Tenant at the expiration or sooner termination of the term of this Lease to restore the Premises to substantially the same condition as existed immediately prior to such alterations, installations, removals, additions, and improvements. Landlord acknowledges and agrees that Tenant shall not be required to remove the improvements existing in the 2nd Floor Space as of the Execution Date of this Lease with the exception of all telecommunication, computer and other cabling installed by Tenant in the Premises or elsewhere in the Building (but subject to the provisions of Article 22).

(e) Tenant shall pay, as an additional charge, the entire increase in real estate taxes on the Building which shall, at any time prior to or after Tenant initially occupies the Premises, result from or be attributable to such alteration, addition or improvement to the Premises made by or for the account of Tenant to the extent that it is determinable from the records of the assessing authority that such increase in Taxes is based solely upon such alteration, addition or improvement. Without limiting the foregoing, for any Tax Period in which the assessing authority determines the assessed value of the Building and the land based upon an income approach, then the immediately preceding sentence shall not apply.

(f) Notwithstanding anything to the contrary herein contained, and excluding Tenant's Work, Tenant shall have the right, without obtaining Landlord's consent, to make interior nonstructural alterations, additions, or improvements costing not more than Fifty Thousand and 00/100 ($50,000.00) Dollars ("Permitted Alterations"), provided however that Tenant:

(i) shall give prior written notice to Landlord of such alterations, additions or improvements;

(ii) Tenant shall submit to Landlord plans for such alterations, additions or improvements if Tenant utilizes plans for such alterations, additions or improvements, and

(iii) that such alterations, additions or improvements shall not materially, adversely affect any of the Building's systems, or the ceiling of the Premises.

13. TENANT'S CONTRACTORS—MECHANICS' AND OTHER LIENS—STANDARD OF TENANT'S PERFORMANCE—COMPLIANCE WITH LAWS

Whenever Tenant shall make any alterations, decorations, installations, removals, additions or improvements in or to the Premises—whether such work be done prior to or after the respective Commencement Date— Tenant will strictly observe the following covenants and agreements:

(a) Tenant agrees that it will not, either directly or indirectly, use any contractors and/or materials if their use will create any difficulty, whether in the nature of a labor dispute or otherwise, with other contractors and/or labor engaged by Tenant or Landlord or others in the construction, maintenance and/or operation of the Building or any part thereof.

(b) In no event shall any material or equipment be incorporated in or added to the Premises, so as to become a fixture or otherwise a part of the Building, in connection with any such alteration, decoration, installation, addition or improvement which is subject to any lien, charge, mortgage or other encumbrance of any kind whatsoever or is subject to any security interest or any form of title retention agreement. No installations or work shall be undertaken or begun by Tenant until (i) Tenant has made provision for written waiver of liens from all contractors, laborers and suppliers of materials for such installations or work, or taken other appropriate protective measures approved by Landlord; and (ii) with respect to installations or work, the cost of which exceed $100,000, Tenant has procured appropriate surety payment and performance bonds which shall name Landlord as an additional obligee and has filed lien bond(s) (in jurisdictions where available) on behalf of such contractors, laborers and suppliers. Any mechanic's lien filed against the Premises or the Building for work claimed to have been done for, or materials claimed to have been furnished to, Tenant shall be discharged by Tenant within ten (10) business days thereafter, at Tenant's expense by filing the bond required by law or otherwise. If Tenant fails so to discharge any lien, and such failure continues for five (5) business days after written notice thereof by Landlord to Tenant, Landlord may discharge or bond over such lien at Tenant's expense and Tenant shall reimburse Landlord for any expense or cost incurred by Landlord in so doing within fifteen (15) days after rendition of a bill therefor.

(c) All installations or work done by Tenant shall be at its own expense (except for Landlord's Contribution, pursuant to Article 4.2 above) and shall at all times comply with (i) laws, rules, orders and regulations of governmental authorities having jurisdiction thereof; (ii) orders, rules and regulations of any Board of Fire Underwriters, or any other body hereafter constituted exercising similar functions, and governing insurance rating bureaus; and (iii) to the extent contained in written materials provided by Landlord to Tenant, reasonable Rules and Regulations of Landlord.

(d) Tenant shall procure all necessary permits before undertaking any work in the Premises; do all of such work in a good and workmanlike manner, employing materials of good quality and complying with all governmental requirements; and defend, save harmless, exonerate and indemnify Landlord from all injury, loss or damage to any person or property occasioned by or growing out of such work. Tenant shall cause contractors employed by Tenant to carry Worker's Compensation Insurance in accordance with statutory requirements, Automobile Liability Insurance and, naming Landlord and Landlord's agent as an additional insured, Commercial General Liability Insurance covering such contractors on or about the Premises in the amounts stated in Article 15 hereof or in such other reasonable amounts as Landlord shall require or authorize, and to submit certificates evidencing such coverage to Landlord prior to the commencement of such work.

14. REPAIRS BY TENANT—FLOOR LOAD

14.1 Repairs by Tenant. Tenant shall keep all and singular the Premises neat and clean (Tenant hereby acknowledging that Landlord shall have no obligation to perform rug shampooing, waxing of tiled floors, or cleaning of blinds and drapes) and in such repair, order and condition as the same are in on the respective Term Commencement Dates or may be put in during the term hereof, reasonable use and wearing thereof and damage by fire or by other casualty excepted. Tenant shall be solely responsible for the proper maintenance of all of Tenant's equipment and appliances operated by Tenant, including, without limitation, copiers, laser printers, computers and refrigerators. In addition, Tenant shall be responsible for the repair and maintenance of the 250KW Generator and Tenant's access to and its obligations generally with regard to the 250KW Generator shall be subject to the provisions of Section 29.18 of this Lease as if the 250KW Generator was HVAC Equipment and part of the Rooftop Mechanical Area as defined in Section 29.18. Tenant shall make, as and when needed as a result of misuse by, or neglect or improper conduct of, Tenant or Tenant's servants, employees, agents, contractors, invitees, or licensees or otherwise, all repairs in and about the Premises necessary to preserve them in such repair, order and condition, which repairs shall be in quality and class equal to the original work. If Tenant is responsible for repairs and fails to make such repairs within thirty (30) days after written notice from Landlord (except that no notice shall be required in an emergency), then Landlord may elect, at the expense of Tenant, to make such repairs, including repairs of any damage or injury to the Building or the Premises caused by moving property of Tenant in or out of the Building, or by installation or removal of furniture or other property, or by misuse by, or neglect, or improper conduct of, Tenant

or Tenant's servants, employees, agents, contractors, or licensees.

14.2 Floor Load—Heavy Machinery. Tenant shall not place a load upon any floor of the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by law. Landlord reserves the right to reasonably prescribe the weight and position of all heavy business machines and mechanical equipment, including safes, which shall be placed so as to distribute the weight. Business machines and mechanical equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient in Landlord's judgment to absorb and prevent vibration, noise and annoyance. Landlord shall advise Tenant of its requirements with respect to the location of machines and mechanical equipment upon Tenant's written request after Tenant has advised Landlord of the items to be installed in the Premises by Tenant and other information reasonably requested by Landlord relating to such machines and equipment. Tenant shall not move any safe, heavy machinery, heavy equipment, freight, bulky matter, or fixtures into or out of the Building without Landlord's prior written consent. If such safe, machinery, equipment, freight, bulky matter or fixtures requires special handling, Tenant agrees to employ only persons holding a Master Rigger's License to do said work, and that all work in connection therewith shall comply with applicable laws and regulations. Any such moving shall be at the sole risk and hazard of Tenant and Tenant will defend, indemnify and save Landlord harmless against and from any liability, loss, injury, claim or suit resulting directly or indirectly from such moving. Proper placement of all such business machines, etc., in the Premises shall be Tenant's responsibility; provided, however, that Tenant shall not be responsible for placement of a machine or equipment if Landlord designates such placement.

Landlord hereby represents to Tenant that the Premises are designed with a live load floor loading capacity of seventy (70) pounds per square foot.

15. INSURANCE, INDEMNIFICATION, EXONERATION AND EXCULPATION

15.1 General Liability Insurance. (a) Tenant shall procure, and keep in force and pay for Commercial General Liability Insurance insuring Tenant on an occurrence basis against all claims and demands for bodily injury liability (including, without limitation, sickness, disease, and death) or damage to property which may be claimed to have occurred from and after the time Tenant and/or its contractors enter the Premises in accordance with Article 4 of this Lease, of not less than Five Million ($5,000,000) Dollars in the event of bodily injury to any number of persons or damage to property, arising out of any

one occurrence, and from time to time thereafter shall be not less than such higher amounts, if procurable, as may be reasonably required by Landlord and are customarily carried by responsible similar tenants in the City or Town wherein the Building is located.

(b) Workers' Compensation in amounts required by the State in which the Building is located and Employer's Liability insurance in the amount of $3,000,000.00 per occurrence.

(c) Tenant shall obtain and maintain loss of income and extra expense insurance in amounts as will reimburse Tenant for direct or indirect loss of earnings attributable to all peril commonly insured against by prudent lessees in the business of Tenant or attributable to prevention of access to the Premises as a result of such perils.

(d) So called "Special Form" insurance coverage for all of its contents, furniture, furnishings, equipment, improvements, fixtures and personal property located at the Premises providing protection in an amount equal to one hundred percent (100%) of the replacement cost basis of said items. If this Lease is terminated as the result of a casualty in accordance with Section 18, the proceeds of said insurance attributable to the replacement of all tenant improvements installed at the Premises by Landlord or at Landlord's cost shall be paid to Landlord.

(e) Any other form or forms of insurance as Tenant or Landlord or any mortgagees of Landlord may reasonably require from time to time in form, in amounts and for insurance risks against which a prudent tenant would protect itself and provided same are required by landlords of comparable buildings. Notwithstanding the foregoing, in the event Landlord requires Tenant to carry any forms of insurance or amounts other than as specified in Article 13 and Sections 15.1 (a), (b), (c) and (d) above and, as a result of such additional required coverage the aggregate cost to Tenant of the insurance required hereunder increases by more than $2,500 in any given year, the Tenant shall be entitled to a rent abatement equal to the amount of such overage.

15.2 Certificates of Insurance. Such insurance shall be effected with insurers approved by Landlord with an A.M. Best rating of X, A-, or better, authorized to do business in the State wherein the Building is situated under valid and enforceable policies wherein Tenant names Landlord, Landlord's managing agent and Landlord's Mortgagees as additional insureds with respect to the Commercial General Liability Insurance. Such insurance shall provide that it shall not be canceled or non-renewed without at least thirty (30) days' prior written notice to each insured named therein. On or before the time Tenant and/or its contractors enter the Premises in accordance with Articles 4 and 14 of this Lease and thereafter not less than fifteen (15) days prior to the expiration date of each expiring policy, copies of the certificates setting forth the coverages provided for in Article 15.1 issued by the respective insurers or their authorized agents together with evidence reasonably satisfactory to Landlord of the payment of all premiums for such policies, shall be delivered by Tenant to Landlord or, upon request of Landlord, to the holder of any mortgage affecting the Premises.

15.3 General. Subject to Article 19, Tenant will save Landlord, its agents and employees, harmless and will exonerate, defend and indemnify Landlord, its agents and employees, from and against any and all claims, liabilities or penalties asserted by or on behalf of any person, firm, corporation or public authority arising:

(i) On account of or based upon any injury to person, or loss of or damage to property, sustained or occurring on the Premises during the term of this Lease and such periods of time, either prior to or after the term of the Lease, that Tenant or anyone claiming by, through or under Tenant occupies the Premises or any portion thereof, on account of or based upon the act, omission, fault, negligence or misconduct of any person whomsoever (except to the extent the same is caused by Landlord, its agents, contractors or employees);

(ii) On account of or based upon any injury to person, or loss of or damage to property, sustained or occurring elsewhere (other than on the Premises) in or about the Building (and, in particular, without limiting the generality of the foregoing, on or about the elevators, stairways, public corridors, sidewalks, concourses, arcades, malls, galleries, vehicular tunnels, approaches, areaways, roof, or other appurtenances and facilities used in connection with the Building or Premises) arising out of the use or occupancy of the Building or Premises by the Tenant, or by any person claiming by, through or under Tenant, or on account of or based upon the act, omission, fault, negligence or misconduct of Tenant, its agents, employees or contractors;

(iii) On account of or based upon (including monies due on account of) any breach by Tenant of its obligations under Article 13(b);

(b) Tenant's obligations under this Article 15.3 shall be insured either under the Commercial General Liability Insurance required under Article 15.1, above, or by a contractual insurance rider or other coverage; and certificates of insurance in respect thereof shall be provided by Tenant to Landlord upon request.

(c) Landlord's Indemnity of Tenant. Landlord, subject to the limitations on Landlord's liability contained elsewhere in this Lease, agrees to hold Tenant harmless and to defend, exonerate and indemnify Tenant from and against any and all claims, liabilities, or penalties asserted by or on behalf of any third party for damage to property or injuries to persons sustained or occurring in the Building to the extent arising from the negligence or willful misconduct of Landlord or Landlord's agents, employees or contractors.

(d) If either party to this Lease (the "Indemnified Party") becomes aware that a claim has been threatened or asserted by a third party that may result in a claim for indemnification under the Lease by the Indemnified Party, the Indemnified Party shall give prompt written notice of such claim to the other party (the "Indemnifying Party"); provided, however, that in no event shall the failure to give such notice relieve or otherwise affect the indemnification obligations of the Indemnifying Party hereunder unless the defense against such claim is materially prejudiced thereby. With respect to any claim that has been threatened or asserted by a third party that may

result in a claim for indemnification as described above, the Indemnifying Party shall have the right to defend against such claim with counsel of its own choosing, but at its own expense, and shall have the right to settle such claim as long as such settlement involves no cost or expense to the Indemnified Party.

15.4 Property of Tenant. In addition to and not in limitation of the foregoing, Tenant covenants and agrees that, to the maximum extent permitted by law, all merchandise, furniture, fixtures and property of every kind, nature and description related or arising out of Tenant's leasehold estate hereunder, which may be in or upon the Premises or Building, in the public corridors, or on the sidewalks, areaways and approaches adjacent thereto, shall be at the sole risk and hazard of Tenant, and that if the whole or any part thereof shall be damaged, destroyed, stolen or removed from any cause or reason whatsoever no part of said damage or loss shall be charged to, or borne by, Landlord, unless, subject to Article 19 hereof, such damage or loss is due to the negligence or willful misconduct of Landlord or Landlord's agents, employees or contractors.

15.5 Bursting of Pipes, etc. Landlord shall not be liable for any injury or damage to persons or property resulting from fire, explosion, falling plaster, steam, gas, air contaminants or emissions, electricity, electrical or electronic emanations or disturbance, water, rain or snow or leaks from any part of the Building or from the pipes, appliances, equipment or plumbing works or from the roof, street or sub-surface or from any other place or caused by dampness, vandalism, malicious mischief or by any other cause of whatever nature, unless caused by or due to the negligence of Landlord or its contractors, or agents or employees of either, and then only, where notice and an opportunity to cure are appropriate (i.e., where Tenant has an opportunity to know or should have known of such condition sufficiently in advance of the occurrence of any such injury or damage resulting therefrom as would have enabled Landlord to prevent such damage or loss had Tenant notified Landlord of such condition), after (i) notice to Landlord of the condition claimed to constitute negligence and (ii) the expiration of a reasonable time after such notice has been received by Landlord without Landlord having taken all reasonable and practicable means to cure or correct such condition; and pending such cure or correction by Landlord, Tenant shall take all reasonably prudent temporary measures and safeguards to prevent any injury, or damage to persons or property. In no event shall Landlord be liable for any loss of Tenant's property, the risk of which is covered by Tenant's insurance or is required to be so covered by this Lease; nor shall Landlord or its agents be liable for any such damage caused by other tenants or persons in the Building or caused by operations in construction of any private, public, or quasi-public work; nor shall Landlord be liable for any latent defect in the Premises or in the Building, provided, however, that the foregoing shall not relieve Landlord of its obligations to make any repairs under Article 8.5.

15.6 Repairs and Alterations—No Diminution of Rental Value. (a) Except as otherwise provided in Articles 8.6, 15.6 and 18, there shall be no allowance to Tenant for diminution of rental value and no liability on the part of Landlord by reason of inconvenience, annoyance or injury to Tenant arising from any repairs, alterations, additions, replacements or improvements made by Landlord in accordance with this Lease, or any related work performed in accordance with this Lease by Tenant or others in or to any portion of the Building or Premises or any property adjoining the Building, or in or to fixtures, appurtenances, or equipment thereof, or for failure of Landlord or others to make any repairs, alterations, additions or improvements in or to any portion of the Building, or of the Premises, or in or to the fixtures, appurtenances or equipment thereof.

(b) Notwithstanding anything to the contrary in this Lease contained, if due to any such repairs, alterations, replacements, or improvements made by Landlord or if due to Landlords failure to make any repairs, alterations, or improvements required to be made by Landlord, any portion of the Premises becomes untenantable so that for the Premises Untenantability Cure Period, as hereinafter defined, the continued operation in the ordinary course of Tenant's business is materially adversely affected, then, provided that Tenant ceases to use the affected portion of the Premises during the entirety of the Premises Untenantability Cure Period by reason of such untenantability, and that such untenantability and Landlord's inability to cure such condition is not caused by the fault or neglect of Tenant or Tenant's agents, employees or contractors, Yearly Rent, Operating Expense Share and Tax Share shall thereafter be abated in proportion to such untenantability until the day such condition is completely corrected. For the purposes hereof, the "Premises Untenantability Cure Period" shall be defined as five (5) consecutive business days after Landlord's receipt of written notice from Tenant of the condition causing untenantability in the Premises, provided however, that the Premises Untenantability Cure Period shall be ten (10) consecutive business days after Landlord's receipt of written notice from Tenant of such condition causing untenantability in the Premises if either the condition was caused by causes beyond Landlord's control or Landlord is unable to cure such condition as the result of causes beyond Landlord's control.

(c) The provisions of Paragraph (b) of this Article 15.6 shall not apply in the event of untenantability caused by fire or other casualty, or taking (see Articles 18 and 20).

16. ASSIGNMENT, MORTGAGING AND SUBLETTING

A. Tenant covenants and agrees that neither this Lease nor the term and estate hereby granted, nor any interest herein or therein, will be assigned, mortgaged, pledged, encumbered or otherwise transferred, voluntarily, by operation of law or otherwise, and that neither the Premises, nor any part thereof will be encumbered in any manner by reason of any act or omission on the part of Tenant, or used or occupied, or permitted to be used or occupied, or utilized for desk space or for mailing privileges, by anyone other than Tenant, or for any use or purpose other than as stated in Exhibit 1, or be sublet, without obtaining Landlord's consent, which consent shall not, subject to the provisions of this Article 16, be unreasonably withheld, conditioned or delayed with respect to: (i) subleases of the Premises, or any portion thereof, and (ii) assignments of Tenant's interest in the Lease, Tenant hereby acknowledging that, in determining whether Landlord will grant its consent, Landlord may consider whether, in Landlord's reasonable judgment, the proposed subtenant or assignee is, in Landlord's reasonable opinion, financially responsible (taking into account the fact that Tenant remains liable as the party-tenant under this Lease) and of good reputation, and Landlord may withhold its consent if the proposed subtenant or assignee is a tenant in the Complex who is then in active negotiations with Landlord for space of similar size, type and lease term.

B. *Permitted Tenant Successor*. Financial Test. Notwithstanding the foregoing, it is hereby expressly understood and agreed however, if Tenant is a corporation, that the assignment or transfer of this Lease, and the term and estate hereby granted, to any corporation or other entity ("Permitted Tenant Successor") into which Tenant is merged or with which Tenant is consolidated or to which Tenant transfers all or substantially all of its assets shall be permitted without Landlord's consent if: (i) in Landlord's reasonable judgment, Tenant then satisfies the Financial Test, as hereinafter defined, (ii) the financial condition of the Permitted Tenant Successor immediately following such assignment or transfer is at least as good as the financial condition of Tenant immediately prior to such assignment or transfer, and (iii) the Permitted Tenant Successor and Tenant shall promptly execute, acknowledge and deliver to Landlord an agreement (an "Assignment Agreement") in form and substance reasonably satisfactory to Landlord whereby the Permitted Tenant Successor shall agree to be independently bound by and upon all the covenants, agreements, terms, provisions and conditions set forth in this Lease on the part of Tenant to be performed, and whereby the Permitted Tenant Successor shall expressly agree that the provisions of this Article 16 shall, notwithstanding such assignment or transfer, continue to be binding upon it with respect to all future assignments and transfers. For the purposes of this Lease, Tenant shall be deemed to have satisfied the "Financial Test" if, as evidenced by the Financial Statements, as hereinafter defined, of Tenant for the six months immediately

preceding the transfer of the Lease to the Permitted Transferee, it is apparent that Tenant would be able to meet its average monthly obligations for one (1) year period following such transfer based upon Tenant's current working capital (i.e. the amount by which cash and cash equivalent assets exceed short term liabilities), the average use of cash and cash equivalent assets by Tenant per month, and the average monthly short term liabilities of Tenant. The "Financial Statements" shall be defined as financial statements (asset and income statements) of Tenant, prepared in form reasonable acceptable to Landlord, and certified as accurate by the chief financial officer of Tenant.

C. *Affiliated Entities*. Notwithstanding anything to the contrary herein contained, Tenant shall have the right, without obtaining Landlord's consent, to assign its interest in this Lease and to sublease the Premises, or any portion thereof, to an Affiliated Entity, as hereinafter defined, so long as such entity remains in such relationship to Tenant, and provided that prior to or simultaneously with such assignment or sublease, such Affiliated Entity executes and delivers to Landlord an Assumption Agreement, as hereinabove defined and further provided that Tenant meets the Financial Test, as defined in Article 16B hereof. For the purposes hereof, an "Affiliated Entity" shall be defined as any entity which directly or indirectly is controlled by, is under common control with, or which controls Tenant. For the purposes hereof, control shall mean the direct or indirect ownership of at least fifty (50%) percent of the beneficial interest of the entity in question. Any Permitted Tenant Successor which satisfies the requirements of Article 16C and any Affiliated Entity which satisfies the requirements of Article 16D is sometimes hereinafter referred to as "Permitted Transferee".

D. *Landlord's Recapture Right*. Notwithstanding anything to the contrary herein contained: (i) if Tenant proposes to assign Tenant's interest in the Lease to other than a Permitted Transferee, or if Tenant proposes to sublease the entirety of the Premises to other than a Permitted Transferee, then Tenant shall so notify Landlord in writing prior to Tenant putting the subject space "on the market", and Landlord shall have an option to cancel and

terminate this Lease, and (ii) if Tenant proposes to sublease a portion of the Premises so that, upon the commencement of the term of such sublease, there shall be then in effect subleases to entities other than Permitted Transferees which, taking into account the proposed sublease, affect more than fifty percent (50%) of the Total Rentable Area of the Premises then demised to Tenant, then Tenant shall so notify Landlord in writing prior to Tenant pulling the subject space "on the market", and Landlord shall have an option to cancel and terminate this Lease with respect to the portion of the Premises proposed to be subleased (but not with respect to other portions of the Premises then affected by any other sublease or subleases). Landlord may exercise such cancellation right by giving written notice to Tenant on or before the date twenty (20) days after Landlord receives written notice from Tenant as to the proposed assignment or sublease in question. If Landlord exercises such right, then the effective date of cancellation or termination shall occur as of the date set forth in Landlord's notice of exercise of such option, which shall not be less than sixty (60) days nor more than one hundred twenty (120) days following the giving of such notice. If Landlord exercises Landlord's option to cancel this Lease or any portion thereof, Tenant shall surrender possession of the Premises, or the portion thereof which is the subject of the option, as the case may be, on the date set forth in Landlord's notice in accordance with the provisions of this Lease relating to surrender of the Premises at the expiration of the Term. If this Lease is cancelled as to a portion of the Premises only, Rent (including any additional rent) after the date of cancellation shall be abated on a pro rata basis in proportion to the portion of the applicable portion of the Premises to which the Lease no longer is effective or applies, and Tenant's Proportionate Share and the number of parking passes shall be proportionately reduced. If Landlord does not exercise Landlord's option to cancel this Lease or any portion thereof pursuant to the foregoing provisions within the permitted time period, then Landlord shall be deemed to have waived such option to cancel or terminate the Lease as to the assignment or sublease in question, but Landlord's consent to such sublease or assignment shall continue to be required in accordance with the other provisions of this Article 16.

E. *Tenant Default*. Notwithstanding anything to the contrary in this Article 16 contained, if Tenant is in default of its obligations under the Lease beyond any applicable notice or grace periods, at the time that it requests Landlord's consent to a proposed sublease or assignment, such default shall be deemed to be a "reasonable" reason for Landlord withholding its consent to any proposed subletting or assignment for as long as such default remains uncured.

F. *No Release of Tenant*. No subletting or assignment shall relieve Tenant of its primary obligation as party Tenant hereunder, nor shall it reduce or increase Landlord's obligations under the Lease.

G. *Net Transfer Profit*. In the event of an assignment of this Lease or a sublease of the Premises or any portion thereof to anyone other than a Permitted Transferee, Tenant shall pay to Landlord fifty (50%) percent of any Net Transfer Profits (as defined below), payable in accordance with the following. In the case of an assignment of this Lease, "Net Transfer Profit": (1) shall be defined as a lump sum in the amount (if any) by which any consideration paid by the assignee in consideration of or as an inducement to Tenant to make said assignment exceeds the reasonable attorneys' fees, construction costs and brokerage fees incurred by Tenant in order to effect such assignment (collectively, "Transfer Expenses"); and (2) be payable concurrently with the payment to be made by the assignee to Tenant. In the case of a sublease, Net Transfer Profit": (3) shall be defined as a monthly amount equal to the amount by which the sublease rent and other charges paid by the subtenant to Tenant under the sublease exceed the sum of (x) the rent and other charges payable under this Lease for the Premises or allocable to the sublet portion thereof, plus (y) an amount equal to any Transfer Expenses not previously reimbursed to Tenant, and (4) shall be payable on a monthly basis concurrently with the subtenant's payment of rent to Tenant under the sublease.

H. The listing of any name other than that of Tenant, whether on the doors of the Premises or on the Building directory, or otherwise, shall not operate to vest in any such other person, firm or corporation any right or interest in this Lease or in the Premises or be deemed to effect or evidence any consent of Landlord, it being expressly understood that any such listing for a party other than Tenant is a privilege extended by Landlord revocable at will by written notice to Tenant.

I. If this Lease be assigned, or if the Premises or any part thereof be sublet or occupied by anybody other than Tenant, Landlord may, at any time and from time to time, collect rent and other charges from the assignee, subtenant or occupant, and apply the net amount collected to the rent and other charges herein reserved then due, but no such assignment, subletting, occupancy or collection shall be deemed a waiver of this covenant, or the acceptance of the assignee, subtenant or occupant as a tenant, or a release of Tenant from the further performance by Tenant of covenants on the part of Tenant herein contained. Any consent by Landlord to a particular

assignment or subletting shall not in any way diminish the prohibition stated in the first sentence of this Article 16 (as to a later assignment or subletting) or the continuing liability of the Tenant named on Exhibit 1 as the party Tenant under this Lease. No assignment or subletting shall affect the purpose for which the Premises may be used as stated in Exhibit 1 and Article 5.1.

17. MISCELLANEOUS COVENANTS

Tenant covenants and agrees as follows:

17.1 Rules and Regulations. Tenant will faithfully observe and comply with the Rules and Regulations, if any, annexed hereto and such other and further reasonable Rules and Regulations as Landlord hereafter at any time or from time to time may make and may communicate in writing to Tenant, which in the reasonable judgment of Landlord shall be necessary for the reputation, safety, care or appearance of the Building, or the preservation of good order therein, or the operation or maintenance of the Building, or the equipment thereof, or the comfort of tenants or others in the Building, provided, however, that in the case of any conflict between the provisions of this Lease and any such regulations, the provisions of this Lease shall control, and provided further that nothing contained in this Lease shall be construed to impose upon Landlord any duty or obligation to enforce the Rules and Regulations or the terms, covenants or conditions in any other lease as against any other tenant and Landlord shall not be liable to Tenant for violation of the same by any other tenant, its servants, employees, agents, contractors, visitors, invitees or licensees. Notwithstanding anything to the contrary in this Lease contained, Landlord agrees that it will not enforce said Rules and Regulations against Tenant in a discriminatory or arbitrary manner.

17.2 Access to Premises—Shoring. Tenant shall: (i) subject to Articles 2.3(b) and 10, permit Landlord to erect, use and maintain pipes, ducts and conduits in and through the Premises, provided the same do not materially reduce the floor area or materially adversely affect the appearance thereof; (ii) upon prior oral notice (except that no notice shall be required in emergency situations), permit Landlord and any mortgagee of the Building or the Building and land or of the interest of Landlord therein, and any lessor under any ground or underlying lease, and their representatives, to have free and unrestricted access to and to enter upon the Premises at all reasonable hours for the purposes of inspection or of making repairs, replacements or improvements in or to the Premises or the Building or equipment (including, without limitation, sanitary, electrical, heating, air conditioning or other systems) or of complying with all laws, orders and requirements of governmental or other authority or of exercising any right reserved to Landlord by this Lease (including the right during the progress of any such repairs, replacements or improvements or while performing work and furnishing materials in connection with compliance with any such laws, orders or requirements to take upon or through, or to keep and store within, the Premises all necessary materials, tools and equipment); and (iii) permit Landlord, at reasonable times, to show the Premises during ordinary business hours to any existing or prospective mortgagee, ground lessor, space lessee, purchaser, or assignee of any mortgage, of the Building or of the Building and the land or of the interest of Landlord therein, and during the period of nine (9) months next preceding the Termination Date to any person contemplating the leasing of the Premises or any part thereof. Except in an emergency, Tenant shall have the right to have representative of Tenant accompany Landlord during any entry by Landlord into the Premises. If Tenant shall not be personally present to open and permit an entry into the Premises at any time when for any reason an entry therein shall be necessary or permissible, Landlord or Landlord's agents may enter the same by a master key, or may, in an emergency forcibly enter the same, without rendering Landlord or such agents liable therefor (if during such entry Landlord or Landlord's agents shall accord reasonable care to Tenant's property), and without in any manner affecting the obligations and covenants of this Lease. Landlord shall exercise its rights of access to the Premises permitted under any of the terms and provisions of this Lease in such manner as to minimize to the extent practicable interference with Tenant's use and occupation of the Premises. Subject to Articles 8.6 and 15.6, if an excavation shall be made upon land adjacent to the Premises or shall be authorized to be made, Tenant shall afford to the person causing or authorized to cause such excavation, license to enter upon the Premises for the purpose of doing such work as said person shall deem necessary to preserve the Building from injury or damage and to support the same by proper foundations without any claims for damages or indemnity against Landlord, or diminution or abatement of rent.

17.3 Accidents to Sanitary and Other Systems. Tenant shall give to Landlord prompt notice of any fire or accident in the Premises or in the Building and of any damage to, or defective condition in, any part or appurtenance of the Building including, without limitation, sanitary, electrical, ventilation, heating and air

conditioning or other systems located in, or passing through, the Premises. Except as otherwise provided in Articles 18 and 20, and subject to Tenant's obligations in Article 14 and Article 19, such damage or defective condition shall be remedied by Landlord with reasonable diligence, but if such damage or defective condition was caused by Tenant or by the employees, licensees, contractors or invitees of Tenant, the cost to remedy the same shall be paid by Tenant. In addition, but subject to Article 19; all reasonable third-party costs incurred by Landlord in connection with the investigation of any notice given by Tenant shall be paid by Tenant if the reported damage or defective condition was caused by Tenant or by the employees, licensees, contractors, or invitees of Tenant. Subject to Articles 8.6 and 15.6, Tenant shall not be entitled to claim any eviction from the Premises or any damages arising from any such damage or defect unless the same (i) shall have been occasioned by the negligence of the Landlord, its agents, servants or employees and (ii) shall not, after notice to Landlord of the condition claimed to constitute negligence, have been cured or corrected within a reasonable time after such notice has been received by Landlord; and in case of a claim of eviction unless such damage or defective condition shall have rendered a substantial portion of the Premises untenantable and they shall not have been made tenantable by Landlord within a reasonable time.

17.4 Signs, Blinds and Drapes. Tenant shall put no signs in any part of the Building, except that: (i) Tenant shall have the right to install a building standard tenant identification sign at Tenant's entrance doors, including Tenant's logo, subject to Landlord's prior written approval (which shall not be unreasonably withheld), and (ii) Tenant shall have the right, during the term of the Lease, to list Tenant's name on each directory within the Complex for any area or Building therein. The initial listing of Tenant's name on the directories shall be at Landlord's cost and expense. Any changes, replacements or additions by Tenant to such directories shall be at Tenant's sole cost and expense. No signs or blinds may be put on or in any window or elsewhere if visible from the exterior of the Building, nor may the building standard drapes or blinds be removed by Tenant. Tenant may hang its own drapes, provided that they shall not in any way interfere with the building standard drapery or blinds or be visible from the exterior of the Building and that such drapes are so hung and installed that when drawn, the building standard drapery or blinds are automatically also drawn. Any signs or lettering in the public corridors or on the doors shall conform to Landlord's building standard design. Neither Landlord's name, nor the name of the Building or any Center, Office Park or other Park of which the Building is a part, or the name of any other structure erected therein shall be used without Landlord's consent in any advertising material (except on business stationery or as an address in advertising matter), nor shall any such name, as aforesaid, be used in any undignified, confusing, detrimental or misleading manner. Tenant shall have the exclusive right during the term of the Lease, at Tenant's expense and subject to the terms of this Article 17.4, to erect, install, maintain, repair and replace exterior building facade identification signage on the east-facing facade Building 600/650/700, subject to applicable zoning requirements and any other applicable laws, and to Tenant obtaining all necessary permits and approvals therefor, provided that the final size, design and location of any such exterior signage shall be subject to the mutual approval of both Landlord and Tenant, not to be unreasonably withheld, conditioned or delayed. Landlord herein consents to the placement of such exterior signage on the east-facing facade of Building 600/650/700 on the glass windows above the Building entry at second (2nd) floor window level or above, subject to all of the conditions and approvals set forth in this Section 17.4. Tenant shall also have the non-exclusive right during the term of the Lease, at Tenant's expense and subject to all of the consent and approval provisions provided herein with regard to the exclusive signage right, to erect, install, maintain, repair and replace exterior building facade identification signage on the east-facing

facade of Building 1400 solely in the area identified on Exhibit 13 attached hereto. Landlord shall reasonably cooperate with Tenant, at no cost to Landlord, in Tenant's pursuit of any necessary permits and approvals required in connection with such exterior building signage, including as necessary the execution and submission of appropriate permit applications. The exclusive rights granted herein shall not prevent Landlord from allowing street level signs to be affixed to the exterior of the Building for first-floor tenants in the Building whose premises directly access adjacent sidewalks or Common Areas of the Complex or Building. At the expiration or earlier termination of the term of this Lease, Tenant shall remove any building facade signage and repair any damage to the respective building caused by the installation or removal of such signage.

17.5 Estoppel Certificate. Tenant shall at any time and from time to time upon not less than ten (10) business days' prior notice by Landlord to Tenant, execute, acknowledge and deliver to Landlord a statement in writing certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, that the same is in full force and effect as modified and stating the modifications), and the dates to which the Yearly Rent and other charges have been paid in advance, if any, stating whether or not, to Tenant's knowledge, Landlord is in default in performance of any covenant, agreement, term, provision or condition contained in this Lease and, if so, specifying each such default and such other facts as Landlord may reasonably request, it being intended that any

such statement delivered pursuant hereto may be relied upon by any prospective purchaser of the Building or of the Building and the land or of any interest of Landlord therein, any mortgagee or prospective mortgagee thereof, any lessor or prospective lessor thereof, any lessee or prospective lessee thereof, or any prospective assignee of any mortgage thereof Time is of the essence in respect of any such requested certificate, Tenant hereby acknowledging the importance of such certificates in mortgage financing arrangements, prospective sale and the like.

17.6 Prohibited Materials and Property. Tenant shall not bring or permit to be brought or kept in or on the Premises or elsewhere in the Building (i) any unique, unusually valuable, rare or exotic furniture, work of art or the like unless the same is fully insured under all-risk coverage, or (ii) any data processing, electronic, optical or other equipment or property of an unusually delicate, fragile or vulnerable nature unless the same are housed, shielded and protected against harm and damage, whether by cleaning or maintenance personnel, radiations or emanations from other equipment now or hereafter installed in the Building, or otherwise. Nor shall Tenant cause or permit any potentially harmful air emissions, odors of cooking or other processes, or any unusual or other objectionable odors or emissions to emanate from or permeate the Premises.

17.7 Requirements of Law—Fines and Penalties. (a) Tenant at its sole expense shall comply with all laws, rules, orders and regulations, including, without limitation, all energy-related requirements, of Federal, State, County and Municipal Authorities and with any direction of any public officer or officers, pursuant to law, which shall impose any duty upon Landlord or Tenant with respect to or arising out of Tenant's use or occupancy of the Premises, provided that Tenant shall not be obligated to perform any construction or other work outside of the Premises based upon the provisions of this sentence. Tenant shall reimburse and compensate Landlord for all expenditures made by, or damages or fines sustained or incurred by, Landlord due to nonperformance or noncompliance with or breach or failure to observe any item, covenant, or condition of this Lease upon Tenant's part to be kept, observed, performed or complied with, which nonperformance, noncompliance, breach or failure continues beyond the applicable notice and cure period set forth in Article 21.7 hereof (except that no notice shall be required in an emergency) . If Tenant receives notice of any violation of law, ordinance, order or regulation applicable to the Premises, it shall give prompt notice thereof to Landlord.

(b) Landlord shall comply with the Americans with Disabilities Act of 1990, and the rules and regulations promulgated thereunder ("ADA") so far as they relate to the parking areas, elevators, common doorways, common bathrooms, common restrooms and other common areas of the Building and/or Complex. Landlord hereby represents to Tenant that, as of the Execution Date of this Lease, Landlord has not received notices from any governmental agencies that the Building is in violation of any applicable laws.

17.8 Tenant's Acts—Effect on Insurance. Tenant shall not knowingly do or permit to be done any act or thing upon the Premises or elsewhere in the Building which will invalidate or be in conflict with any insurance policies covering the Building and the fixtures and property therein; and shall not do, or permit to be done, any act or thing upon the Premises which shall subject Landlord to any liability or responsibility for injury to any person or persons or to property by reason of any business or operation being carried on upon said Premises or for any other reason. Tenant at its own expense shall comply with all rules, orders, regulations and requirements of the Board of Fire Underwriters, or any other similar body having jurisdiction, and shall not (i) knowingly do, or permit anything to be done, in or upon the Premises, or bring or keep anything therein, except as now or hereafter permitted by the Fire Department, Board of Underwriters, Fire Insurance Rating Organization, or other authority having jurisdiction, and then only in such quantity and manner of storage as will not increase the rate for any insurance applicable to the Building, or (ii) use the Premises in a manner which shall increase such insurance rates on the Building, or on property located therein, over that applicable when Tenant first took occupancy of the Premises hereunder. If by reason of the failure of Tenant to comply with the provisions hereof the insurance rate applicable to any policy of insurance shall at any time thereafter be higher than it otherwise would be, the Tenant shall reimburse Landlord for that part of any insurance premiums thereafter paid by Landlord, which shall have been charged because of such failure by Tenant. Landlord acknowledges that the use of the Premises for the Permitted Use stated in Exhibit 1 (as opposed to the manner of use of the Premises by Tenant, even if such manner of use is a Permitted Use) will not breach the provisions of this Article 17.8.

17.9 Miscellaneous. Tenant shall not suffer or permit the Premises or any fixtures, equipment or utilities therein or serving the same, to be overloaded, damaged or defaced, nor permit any hole to be drilled or made in any part thereof, except in connection with work performed in accordance with this Lease. Tenant shall not suffer or permit any employee, contractor, business invitee or visitor to violate any covenant, agreement or obligations of

the Tenant under this Lease.

18. DAMAGE BY FIRE, ETC.

(a) During the entire term of this Lease, and adjusting insurance coverages to reflect current values from time to time:—(i) Landlord shall keep the Building (excluding Tenant's Work and any other property installed by or at the expense of Tenant) (collectively, "Tenant's Insured Property") insured against loss or damage caused by any peril covered under fire, extended coverage and all risk insurance in an amount equal to one hundred percent (100%) replacement cost value above foundation walls; and (ii) Tenant shall keep Tenant's Insured Property (but not with respect to Tenant's personal property) and its personal property in and about the Premises insured against loss or damage caused by any peril covered under fire, extended coverage and

all risk insurance in an amount equal to one hundred percent (100%) replacement cost value. Such Tenant's insurance with respect to Tenant's Insured Property shall insure the interests of both Landlord and Tenant as their respective interests may appear from time to time and shall name Landlord as an additional insured; and the proceeds thereof shall be used only for the replacement or restoration of such property.

(b) If any portion of the Premises or common areas of the Building required to be insured by Landlord under the preceding paragraph shall be damaged by fire or other insured casualty, Landlord shall proceed with diligence, subject to the then applicable statutes, building codes, zoning ordinances, and regulations of any governmental authority, and at the expense of Landlord (but only to the extent of insurance proceeds made available to Landlord by any mortgagee and/or ground lessor of the real property of which the Premises are a part) to repair or cause the damaged portions of the Premises and the common areas of the Building to be repaired and restored to the condition that existed prior to such damage, including repairs to Tenant's alterations, decorations, additions and improvements which shall be performed by Landlord; in all other respects, all repairs to and replacements of Tenant's personal property shall be made by and at the expense of Tenant.

(c) If the Premises or any part thereof shall have been rendered unfit for use and occupation hereunder or not reasonably accessible by reason of such damage the Yearly Rent and the additional charges (including Tax Share and Operating Expense Share) or a just and proportionate part thereof, according to the nature and extent to which the Premises shall have been so rendered unfit or inaccessible, shall be suspended or abated until the Premises (except as to the property which is to be repaired by or at the expense of Tenant) shall have been restored as nearly as practicably may be to the condition in which they were immediately prior to such fire or other casualty.

(d) Tenant agrees to cooperate with Landlord in such manner as Landlord may reasonably request in assisting Landlord in collecting insurance proceeds due in connection with any casualty which affects the Premises.

(e) Landlord shall not be liable for delays in the making of any such repairs which are due to government regulation, casualties and strikes, unavailability of labor and materials, and other causes beyond the reasonable control of Landlord, nor shall Landlord be liable for any inconvenience or annoyance to Tenant or injury to the business of Tenant resulting from delays in repairing such damage.

(f) If (i) the Premises are so damaged by fire or other casualty (whether or not insured) at any time during the last eighteen (18) months of the term hereof that the cost to repair such damage to the Premises is reasonably estimated to exceed one-half (1/2) of the total Yearly Rent payable hereunder for the period from the estimated date of restoration until the Termination Date, or (ii) the Building (whether or not including any portion of the Premises) is so damaged by fire or other casualty (whether or not insured) that substantial alteration or reconstruction or demolition of the Building shall in Landlord's bona fide business judgment be required, and (with respect to a termination pursuant to this clause (f)), Landlord terminates the leases of all tenants of the Building similarly affected by the fire or casualty in question, then and in either of such events, this Lease and the term hereof may be terminated at the election of Landlord by a notice in writing of its election so to terminate which shall be given by Landlord to Tenant within sixty (60) days following such fire or other casualty, the effective termination date of which shall be not less than thirty (30) days after the day on which such termination notice is received by Tenant. In the event of any termination, this Lease and the term hereof shall expire as of such effective termination date as though that were the Termination Date as stated in Exhibit 1 and the Yearly Rent shall be apportioned as of such date; and if the Premises or any part thereof shall have been rendered unfit for use and occupation by reason of

such damage the Yearly Rent and the additional charges (including Tax Share and Operating Expense Share) for the period from the date of the fire or other casualty to the effective termination date, or a just and proportionate part thereof, according to the nature and extent to which the Premises shall have been so rendered unfit or inaccessible, shall be abated.

(g) In the event that the Premises or the Building are damaged by fire or other casualty to such an extent so as to render the Premises, or a substantial portion thereof, untenantable, and if Landlord shall fail to substantially complete said repairs or restoration within two hundred forty (240) days after the date of such fire or other casualty ("Restoration Period") for any reason other than Tenant's fault, Tenant may terminate this Lease by giving Landlord written notice as follows:

(i) Said notice shall be given after the Restoration Period.

(ii) Said notice shall set forth an effective date which is not earlier than thirty (30) days after Landlord receives said notice.

(iii) If said repairs or restoration are substantially complete on or before the date thirty (30) days (which thirty-(30)-day period shall be extended by the length of any delays caused by Tenant or Tenant's contractors) after Landlord receives such notice, said notice shall have no further force and effect.

(iv) If said repairs or restoration are not substantially complete on or before the date thirty (30) days (which thirty-(30)-day period shall be extended by the length of any delays caused by Tenant or Tenant's contractors) after Landlord receives such notice, the Lease shall terminate as of said effective date.

19. WAIVER OF SUBROGATION

In any case in which Tenant shall be obligated to pay to Landlord any loss, cost, damage, liability, or expense suffered or incurred by Landlord, Landlord shall allow to Tenant as an offset against the amount thereof (i) the net proceeds of any insurance collected by Landlord for or on account of such loss, cost, damage, liability or expense, provided that the allowance of such offset does not invalidate or prejudice the policy or policies under which such proceeds were payable, and (f) the amount of any loss, cost, damage, liability or expense caused by a peril covered by the broadest form of property insurance generally available on the Building or in property in buildings of the type of the Building, whether or not actually procured by Landlord.

In any case in which Landlord or Landlord's managing agent shall be obligated to pay to Tenant any loss, cost, damage, liability or expense suffered or incurred by Tenant, Tenant shall allow to Landlord or Landlord's managing agent, as the case may be, as an offset against the amount thereof (i) the net proceeds of any insurance collected by Tenant for or on account of such loss, cost, damage, liability, or expense, provided that the allowance of such offset does not invalidate the policy or policies under which such proceeds were payable and (ii) the amount of any loss, cost, damage, liability or expense caused by a peril covered by the broadest form of property insurance generally available on the Building or in property in buildings of the type of the Building, whether or not actually procured by Tenant.

The parties hereto shall each procure an appropriate clause in, or endorsement on, any property insurance policy covering the Premises and the Building and personal property, fixtures and equipment located thereon and therein, pursuant to which the insurance companies waive subrogation or consent to a waiver of right of recovery in favor of either party, its respective agents or employees. Each party hereby agrees that it will not make any claim against or seek to recover from the other or its agents or employees for any loss or damage to its property or the property of others resulting from fire or other perils covered by such property insurance.

20. CONDEMNATION - EMINENT DOMAIN

In the event that the Premises or any material part thereof, or the whole or any material part of the Building (i.e., such that Landlord, in Landlord's bona fide business judgment, determines that the continued operation of the Building is uneconomic), shall be taken or appropriated by eminent domain or shall be condemned for any public or

quasi-public use, or (by virtue of any such taking, appropriation or condemnation) shall suffer any damage (direct, indirect or consequential) for which Landlord or Tenant shall be entitled to compensation, then (and in any such event) this Lease and the term hereof may be terminated at the election of Landlord by a notice in writing of its election so to terminate which shall be given by Landlord to Tenant within sixty (60) days following the date on which Landlord shall have received notice of such taking, appropriation or condemnation. In the event that a substantial part of the Premises or of the means of access thereto shall be so taken (i.e., such portion of the Premises or access is taken so that Tenant determines, in Tenant's bona fide business judgment, that Tenant's use of the Premises is materially adversely affected), appropriated or condemned, then (and in any such event) this Lease and the term hereof may be terminated at the election of Tenant by a notice in writing of its election so to terminate which shall be given by Tenant to Landlord within sixty (60) days following the date on which Tenant shall have received notice of such taking, appropriation or condemnation.

Upon the giving of any such notice of termination (either by Landlord or Tenant) this Lease and the term hereof shall terminate on or retroactively as of the date on which Tenant shall be required to vacate any part of the Premises or shall be deprived of a material part of the means of access thereto, provided, however, that Landlord may in Landlord's notice elect to terminate this Lease and the term hereof retroactively as of the date on which such taking, appropriation or condemnation became legally effective. In the event of any such termination, this Lease and the term hereof shall expire as of such effective termination date as though that were the Termination Date as stated in Exhibit 1, and the Yearly Rent and the additional charges (including Tax Share and Operating Expense Share) shall be apportioned as of such date. If neither party (having the right so to do) elects to terminate or if neither party has the right to terminate following any taking, appropriation or condemnation, Landlord will, with reasonable diligence and at Landlord's expense, restore the remainder of the Premises, or the remainder of the means of access, as nearly as practicably may be to the same condition as obtained prior to such taking, appropriation or condemnation in which event (i) a just proportion of the Yearly Rent and the additional charges (including Tax Share and Operating Expense Share), according to the nature and extent of the taking, appropriation or condemnation and the resulting permanent injury to the Premises and the means of access thereto, shall be permanently abated, and (ii) a just proportion of the remainder of the Yearly Rent and the additional charges (including Tax Share and Operating Expense Share), according to the nature and extent of the taking, appropriation or condemnation and the resultant injury sustained by the Premises and the means of access thereto, shall be abated until what remains of the Premises and the means of access thereto shall have been restored as fully as may be for permanent use and occupation by Tenant hereunder. Except for any award specifically reimbursing Tenant for moving or relocation expenses or for Tenant's personal property, there are expressly reserved to Landlord all rights to compensation and damages created, accrued or accruing by reason of any such taking, appropriation or condemnation, in implementation and in confirmation of which Tenant does hereby acknowledge that Landlord shall be entitled to receive all such compensation and damages, grant to Landlord all and whatever rights (if any) Tenant may have to such compensation and damages, and agree to execute and deliver all and whatever further instruments of assignment as Landlord may from time to time reasonably request. In the event of any taking of the Premises or any part thereof for temporary (i.e., not in excess of one (I) year) use, (i) this Lease shall be and remain unaffected thereby, and (ii) Tenant shall be entitled to receive for itself any award made to the extent allocable to the Premises in respect of such taking on account of such use, provided, that if any taking is for a period extending beyond the term of this Lease, such award shall be apportioned between Landlord and Tenant as of the Termination Date or earlier termination of this Lease.

21. DEFAULT

21.1 Conditions of Limitation - Re-entry - Termination. This Lease and the herein term and estate are, upon the condition that if (a) subject to Article 21.7, Tenant shall neglect or fail to perform or observe any of the Tenant's covenants or agreements herein, including (without limitation) the covenants or agreements with regard to the payment when due of rent, additional charges, reimbursement for increase in Landlord's costs, or any other charge payable by Tenant to Landlord (all of which shall be considered as part of Yearly Rent for the purposes of invoking Landlord's statutory or other rights and remedies in respect of payment defaults); or (b) Tenant shall admit in writing Tenant's inability to pay its debts generally as they become due, or (c) Tenant shall make a composition of its debts with its creditors; or (d) Tenant shall make an assignment or trust mortgage, or other conveyance or transfer of like nature, of all or a substantial part of its property for the benefit of its creditors, or (e) an attachment on mesne process, on execution or otherwise, or other legal process shall issue against Tenant's leasehold interest hereunder and a sale shall be held thereunder; or (f) any judgment, final beyond appeal secured by any lien, attachment or the like on Tenant's leasehold interest hereunder, shall be entered, recorded or filed against Tenant in

any court, registry, etc. and Tenant shall fail to pay such judgment within sixty (60) days after the judgment shall have become final beyond appeal or to discharge or secure by surety bond such lien, attachment, etc. within such sixty (60) day period; or (g) the leasehold hereby created shall be taken on execution or by other process of law and shall not be revested in Tenant within sixty (60) days thereafter; or (h) a receiver, sequesterer, trustee or similar officer shall be appointed by a court of competent jurisdiction to take charge of all or substantially all of Tenant's property and such appointment shall not be vacated within sixty (60) days; or (i) any proceeding shall be instituted by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors, and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within sixty (60) days or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding, or (j) any event shall occur or any contingency shall arise whereby this Lease, or the term and estate thereby created, would (by operation of law or otherwise) devolve upon or pass to any person, firm or corporation other than Tenant, except as expressly permitted under Article 16 hereof (including, without limitation, provisions of Article 16 that require Landlord not to unreasonably withhold its consent to such a transfer) - then, and in any such event (except as hereinafter in Article 21.2 otherwise provided) Landlord may, by notice to Tenant, elect to terminate this Lease; and thereupon (and without prejudice to any

remedies which might otherwise be available for arrears of rent or other charges due hereunder or preceding breach of covenant or agreement and without prejudice to Tenant's liability for damages as hereinafter stated), upon the giving of such notice, this Lease shall terminate as of the date specified therein as though that were the Termination Date as stated in Exhibit 1. Without being taken or deemed to be guilty of any manner of trespass or conversion, and without being liable to indictment, prosecution or damages therefor, Landlord may, in any manner permitted by law, enter into and upon the Premises (or any part thereof in the name of the whole); repossess the same as of its former estate; and expel Tenant and those claiming under Tenant. Wherever "Tenant " is used in subdivisions (c), (d), (e), (1), (g), (h) and (i) of this Article 21.1, it shall be deemed to include the present guarantor of Tenant's obligations under this Lease, if any. The words "re-entry" and "re-enter" as used in this Lease are not restricted to their technical legal meanings.

21.2 Intentionally Omitted.

21.3 Damages - Termination. Upon the termination of this Lease under the provisions of this Article 21, then except as hereinabove in Article 21.2 otherwise provided, Tenant shall pay to Landlord the rent and other charges payable by Tenant to Landlord up to the time of such termination, shall continue to be liable for any preceding breach of covenant, and in addition, shall pay to Landlord as damages, at the election of Landlord

either:

(x) the amount by which, at the time of the termination of this Lease (or at any time thereafter when Landlord shall elect damages under this subparagraph (x) if Landlord shall have initially elected damages under subparagraph (y), below) (such time, in either event, being hereinafter referred to as the "Election Date"), (i) the aggregate of the rent and other charges projected over the period commencing at such time and ending on the Termination Date as stated in Exhibit 1 exceeds (ii) the aggregate fair rental value of the Premises for such period;

or:

(y) amounts equal to the rent and other charges which would have been payable by Tenant had this Lease not been so terminated, payable upon the due dates therefor specified herein following such termination and until the Termination Date as specified in Exhibit 1, provided, however, if Landlord shall re-let the Premises during such period, that Landlord shall credit Tenant with the net rents received by Landlord from such re-letting, such net rents to be determined by first deducting from the gross rents as and when received by Landlord from such re-letting the expenses incurred or paid by Landlord in terminating this Lease, as well as the expenses of re-letting, including altering and preparing the Premises for new tenants, brokers' commissions, and all other similar and dissimilar expenses of re-letting properly chargeable against the Premises and the rental therefrom, it being understood that any such re-letting may be for a period equal to or shorter or longer than the remaining term of this Lease; and provided, further, that (i) in no event shall Tenant be entitled to receive any excess of such net rents over the sums payable by Tenant to Landlord hereunder and (ii) in no event shall Tenant be entitled in any suit for the collection of damages pursuant to this Subparagraph (y) to a credit in respect of any net rents from a re-letting except to the extent that such net rents are actually received by Landlord and relate to the period of time on which such suit is based. If the Premises or any part thereof should be re-let in combination with other space, then proper apportionment on a square

foot area basis shall be made of the rent received from such re-letting and of the expenses of re-letting.

If Landlord at any time elects to recover under subparagraph (x), then Landlord may not recover any damages under subparagraph (y) with respect to any period of time after the Election Date.

Landlord agrees to use reasonable efforts to relet the Premises after Tenant vacates the Premises in the event that the Lease is terminated based upon a default by Tenant hereunder. Marketing of Tenant's Premises in a manner similar to the manner in which Landlord markets other premises within Landlord's control in the Building or Complex shall be deemed to have satisfied Landlord's obligation to use "reasonable efforts." In no event shall Landlord be required to (i) solicit or entertain negotiations with any other prospective tenants for the Premises until Landlord obtains full and complete possession of the Premises including, without limitation, the final and unappealable legal right to re-let the Premises free of any claim of Tenant, (ii) relet the Premises before leasing other vacant space in the Complex, (iii) lease the Premises for a rental less than the current fair market rental then prevailing for similar space in the Complex, or (iv) enter into a lease with any proposed tenant that does not have, in Landlord's reasonable opinion, sufficient financial resources or operating experience to operate the Premises in a first-class manner.

In calculating the rent and other charges under Subparagraph (x), above, there shall be included, in addition to the Yearly Rent, Tax Share and Operating Expense Share and all other considerations agreed to be paid or performed by Tenant, on the assumption that all such amounts and considerations would have remained constant (except as herein otherwise provided) for the balance of the full term hereby granted.

Suit or suits for the recovery of such damages, or any installments thereof, may be brought by Landlord from time to time at its election, and nothing contained herein shall be deemed to require Landlord to postpone suit until the date when the term of this Lease would have expired if it had not been terminated hereunder.

Nothing herein contained shall be construed as limiting or precluding the recovery by Landlord against Tenant of any sums or damages to which, in addition to the damages particularly provided above, Landlord may lawfully be entitled by reason of any default hereunder on the part of Tenant.

21.4 Fees and Expenses.

(a) If Tenant shall default in the performance of any covenant on Tenant's part to be performed as in this Lease contained, and if such default continues uncured for twenty (20) days after written notice thereof is given by Landlord to Tenant (except that no prior notice shall be required in an emergency), Landlord may immediately, or at any time thereafter while such default continues uncured, without further notice, perform the same for the account of Tenant. If Landlord at any time is compelled to pay or so elects (as provided above) to pay any sum of money, or do any act which will require the payment of any sum of money, by reason of the failure of Tenant to comply with any provision hereof, or if Landlord is compelled to or does so incur (as provided above) any expense, including reasonable attorneys' fees, in instituting, prosecuting, and/or defending any action or proceeding instituted by reason of any default of Tenant hereunder, Tenant shall on demand pay to Landlord by way of reimbursement the sum or sums so paid by Landlord with all costs and damages, plus interest computed as provided in Article 6 hereof.

(b) Tenant shall pay Landlord's cost and expense, including reasonable attorneys' fees, incurred (i) in enforcing any obligation of Tenant under this Lease or (ii) as a result of Landlord, without its fault, being made party to any litigation pending by or against Tenant or any persons claiming through or under Tenant. 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 appeal) in favor of Landlord in the lawsuit relating to such fees. Landlord shall, prior to incurring any such expenses pursuant to this Article 21.4(b), give Tenant at least ten (10) days' prior written notice. Tenant shall have the right to engage counsel reasonable acceptable to Landlord to defend Landlord in any litigation referred to in clause (ii) and to settle such litigation provided that after such settlement neither Landlord nor any of its agents or employees has any liability as a result of such settlement.

(c) Landlord shall pay, upon demand by Tenant, reasonable attorneys fees incurred by Tenant in connection with any lawsuit between Landlord and Tenant where judgment is entered (final, and beyond appeal) in favor of Tenant.

21.5 Waiver of Redemption. Tenant does hereby waive and surrender all rights and privileges which it might have under or by reason of any present or future law to redeem the Premises or to have a continuance of this Lease for the term hereby demised after being dispossessed or ejected therefrom by process of law or under the terms of this Lease or after the termination of this Lease as herein provided.

21.6 Landlord's Remedies Not Exclusive. The specified remedies to which Landlord may resort hereunder are cumulative and are not intended to be exclusive of any remedies or means of redress to which Landlord may at any time be lawfully entitled, and Landlord may invoke any remedy (including the remedy of specific performance) allowed at law or in equity as if specific remedies were not herein provided for.

21.7 Grace Period. Notwithstanding anything to the contrary in this Article contained, Landlord agrees not to take any action to terminate this Lease (a) for default by Tenant in the payment when due of any sum of money, if Tenant shall cure such default within ten (10) days after written notice thereof is given by Landlord to Tenant, provided, however, that no such notice need be given and no such default in the payment of money shall be curable if on two (2) prior occasions within the prior twelve (12) month period there had been a default in the payment of money which had been cured after notice thereof had been given by Landlord to Tenant as herein provided or (b) for default by Tenant in the performance of any covenant or other provisions of this Lease other than a covenant to pay a sum of money, if Tenant shall cure such default within a period of thirty (30) days after written notice thereof is given by Landlord to Tenant (except that where the nature of the default is such that remedial action should appropriately take place sooner, as reasonably indicated in such written notice, then such remedial action shall take place within the time period set forth in such notice, which shall not in any event be less than fifteen (15) days after such notice is given), or within such additional period 8 may reasonably be required to cure such default if (because of governmental restrictions or any other cause beyond the reasonable control of Tenant) the default is of such a nature that it cannot reasonably be expected to be cured within such thirty-(30)- day period, provided, however, (I) that there shall be no extension of time beyond such thirty-(30)-day period for the curing of any such default unless, not more than ten (10) days after the receipt of the notice of default, Tenant in writing (i) shall specify the cause on account of which the default cannot be cured during such period and shall advise Landlord of its intention duly to institute all steps necessary to cure the default and (ii) shall, as soon as reasonably practicable, duly institute and thereafter diligently prosecute to completion all steps necessary to cure such default and, (2) that no notice of the opportunity to cure a default need be given, and no grace period whatsoever shall be allowed to Tenant, if the default is a condition set forth in any of the following clauses: Articles 21.1(b) through (j). Notwithstanding anything to the contrary in this Article 21.7 contained, except to the extent prohibited by applicable law, any statutory notice and grace periods provided to Tenant by law are hereby expressly waived by Tenant in favor of the notice and grace periods set forth in this Article 21.7.

22. END OF TERM - ABANDONED PROPERTY

Upon the expiration or other termination of the term of this Lease, Tenant shall peaceably quit and surrender to Landlord the Premises and all alterations and additions thereto, broom clean, in the same order, repair and condition which Tenant is required to maintain the Premises pursuant to Article 14 (except as provided herein and in Articles 8.5, 18 and 20), and excepting damage by fire or casualty for which, under other provisions of this Lease, Tenant has no responsibility of repair or restoration. Subject to Article 12, Tenant shall remove all of its property including, without limitation, all telecommunication, computer and other cabling, installed by Tenant in the Premises or elsewhere in the Building, and, to the extent specified by Landlord at the time that Landlord approves Tenant's plans for the same, all alterations and additions made by Tenant within the Premises, and shall repair any damages to the Premises or the Building caused by their installation or by such removal. Tenant's obligation to observe or perform this covenant shall survive the expiration or other termination of the term of this Lease. If the cost to remove the telecommunication, computer and other cabling installed by Tenant in the Premises or elsewhere in the Building exceeds $0.15 per rentable square feet of the Premises then Landlord shall reimburse Tenant (after presentation of an invoice confirming such cost) the amount of such overage within thirty (30) days after written request therefor. The contractor and bid selected by Tenant to perform such removal work shall be subject to Landlord's reasonable prior approval, not to be unreasonably withheld, conditioned or delayed.

Tenant will remove any personal property from the Building and the Premises upon or prior to the expiration or termination of this Lease and any such property which shall remain in the Building or the Premises thereafter shall be conclusively deemed to have been abandoned, and may either be retained by Landlord as its property or sold or otherwise disposed of in such manner as Landlord may see fit. If any part thereof shall be sold,

that Landlord may receive and retain the proceeds of such sale and apply the same, at its option, against the expenses of the sale, the cost of moving and storage, any arrears of Yearly Rent, additional or other charges payable hereunder by Tenant to Landlord and any damages to which Landlord may be entitled under Article 21 hereof or pursuant to law and the balance, if any, shall be paid to Tenant.

If Tenant or anyone claiming under Tenant shall remain in possession of the Premises or any part thereof after the expiration or prior termination of the term of this Lease without any agreement in writing between Landlord and Tenant with respect thereto, then, prior to the acceptance of any payments for rent or use and occupancy by Landlord, the person remaining in possession shall be deemed a tenant-at-sufferance. Whereas the parties hereby acknowledge that Landlord may need the Premises after the expiration or prior termination of the term of the Lease for other tenants and that the damages which Landlord may suffer as the result of Tenant's holding-over cannot be determined as of the Execution Date hereof, in the event that Tenant so holds over, Tenant shall pay to Landlord in addition to all rental and other charges due and accrued under the Lease prior to the date of termination, charges (based upon fair market rental value of the Premises) for use and occupation of the Premises thereafter and, in addition to such sums and any and all other rights and remedies which Landlord may have at law or in equity, an additional use and occupancy charge in the amount of fifty percent (50%) of either the Yearly Rent and other

charges calculated (on a daily basis) at the highest rate payable under the terms of this Lease, but measured from the day on which Tenant's hold-over commenced and terminating on the day on which Tenant vacates the Premises or the fair market value of the Premises for such period, whichever is greater. In addition, Tenant shall save Landlord, its agents and employees, harmless and will exonerate, defend and indemnify Landlord, its agents and employees, from and against any and all damages which Landlord may suffer on account of Tenant's hold-over in the Premises for a period of more than thirty (30) days after the expiration or prior termination of the term of the Lease.

23. SUBORDINATION

(a) Subject to any mortgagee's or ground lessor's election, as hereinafter provided for, this Lease is subject and subordinate in all respects to: (i) all matters of record (including, without limitation, deeds and land disposition agreements), ground leases and/or underlying leases, and all mortgages, any of which now affect the real property of which the Premises are a part, or any part of such real property, and/or Landlord's interest or estate therein, and (ii) all ground and/or underlying leases and all mortgages which may in the future affect the real property of which the Premises are a part, or any part of such real property, and/or Landlord's interest or estate therein, and (with respect to any such existing or future mortgage) to each advance made and/or hereafter to be made under any such mortgages, and to all renewals, modifications, consolidations, replacements and extensions thereof and all substitutions therefor. This Article 23 shall be self-operative and no further instrument or subordination shall be required. In confirmation of such subordination, Tenant shall execute, acknowledge and deliver promptly any certificate or instrument that Landlord and/or any mortgagee and/or lessor under any ground or underlying lease and/or their respective successors in interest may reasonably request to effectuate such subordination, subject to Landlord's, mortgagee's and ground lessor's right to do so for, on behalf and in the name of Tenant under certain circumstances, as hereinafter provided. Tenant acknowledges that, where applicable, any amendment to this Lease approved hereafter by Landlord may be subject to the further consent or approval of such mortgagee and/or ground lessor; and the failure or refusal of such mortgagee and/or ground lessor to give such consent or approval shall, notwithstanding anything to the contrary in this Lease contained, constitute reasonable justification for Landlord's withholding its approval of such amendment.

(b) Notwithstanding anything to the contrary in this Article 23 contained, as to any future mortgages, ground leases, and/or underlying lease or deeds of trust, the herein provided subordination and attornment shall be effective only if the mortgagee, ground lessor or trustee therein, as the case may be, agrees, by a written instrument in recordable form and in the customary form of such mortgagee, ground lessor, or trustee, with such commercially reasonable changes as Tenant may request ("Nondisturbance Agreement") that, as long as Tenant shall not be in terminable default of the obligations on its part to be kept and performed under the terms of this Lease, this Lease will not be affected and Tenant's possession hereunder will not be disturbed by any default in, termination, and/or foreclosure of, such mortgage, ground lease, and/or underlying lease or deed of trust, as the case may be. Landlord shall cause the holder of the current mortgage affecting the Complex to enter into a Nondisturbance Agreement with Tenant.

(c) Any such mortgagee or ground lessor may from time to time subordinate or revoke any such

subordination of the mortgage or ground lease held by it to this Lease. Such subordination or revocation, as the case may be, shall be effected by written notice to Tenant and by recording an instrument of subordination or of such revocation, as the case may be, with the appropriate registry of deeds or land records and to be effective without any further act or deed on the part of Tenant. In confirmation of such subordination or of such revocation, as the case may be, Tenant shall execute, acknowledge and promptly deliver any certificate or instrument that Landlord, any mortgagee or ground lessor may reasonably request to effectuate such subordination or such revocation, subject to Landlord's, mortgagee's and ground lessor's right to do so for, on behalf and in the name of Tenant under certain circumstances, as hereinafter provided.

(d) Without limitation of any of the provisions of this Lease, if any ground lessor or mortgagee shall succeed to the interest of Landlord by reason of the exercise of its rights under such ground lease or mortgage (or the acceptance of voluntary conveyance in lieu thereof) or any third party (including, without limitation, any foreclosure purchaser or mortgage receiver) shall succeed to such interest by reason of any such exercise or the expiration or sooner termination of such ground lease, however caused, then such successor may, upon notice and request to Tenant (which, in the case of a ground lease, shall be within thirty (30) days after such expiration or sooner termination), succeed to the interest of Landlord under this Lease, subject to such commercially reasonable limitations of liability as the holder of such ground lease or mortgage may require in the Nondisturbance Agreement. In the event of such succession to the interest of the Landlord — and notwithstanding that any such mortgage or ground lease may antedate this Lease — the Tenant shall attorn to such successor and shall ipso facto be and become bound directly to such successor in interest to Landlord to perform and observe all the Tenant's obligations under this Lease without the necessity of the execution of any further instrument. Nevertheless, Tenant agrees at any time and from time to time during the term hereof to execute a suitable instrument in confirmation of Tenant's agreement to attorn, as aforesaid, subject to Landlord's, mortgagee's and ground lessor's right to do so for, on behalf and in the name of Tenant under certain circumstances, as hereinafter provided.

(e) The term "mortgage(s)" as used in this Lease shall include any mortgage or deed of trust. The term mortgagee(s)" as used in this Lease shall include any mortgagee or any trustee and beneficiary under a deed of trust or receiver appointed under a mortgage or deed of trust. The term "mortgagor(s)" as used in this Lease shall include any mortgagor or any grantor under a deed of trust.

(f) Tenant hereby irrevocably constitutes and appoints Landlord or any such mortgagee or ground lessor, and their respective successors in interest, acting singly, Tenant's attorney-in-fact to execute and deliver any such certificate or instrument for, on behalf and in the name of Tenant, but only if Tenant fails to execute, acknowledge and deliver any such certificate or instrument in the following circumstances:

(i) Landlord, such mortgagee, or ground lessor ("Requesting Party") shall have given Tenant a written request ("First Request") therefore, stating that if Tenant does not timely execute and deliver such certificate or instrument, the Requesting Party may act as Tenant's attorney-in-fact in accordance with this Article 23(e), together with a Nondisturbance Agreement, as defined in Article 23(a), executed on behalf of the mortgagee, ground lessor, or trustee in question;

(ii) Tenant shall fail to execute and deliver such certificate or instrument within ten (10) days of the First Request;

(iii) The Requesting Party shall, after the expiration of such ten (10) day period, have given Tenant another request ("Second Request") therefor, stating that Tenant has failed timely to respond to the First Request for such certificate or instrument and that if Tenant does not execute and deliver such certificate or instrument within ten (10) days of the Second Request, the Requesting Party may act as Tenant's attorney-in-fact in accordance with this Article 23(e); and

(iv) Tenant shall fail to execute and deliver such certificate or instrument within ten (10) days of the Second Request.

(g) Notwithstanding anything to the contrary contained in this Article 23, if all or part of Landlord's estate and interest in the real property of which the Premises are a part shall be a leasehold estate held under a ground lease, then: (i) the foregoing subordination provisions of this Article 23 shall not apply to any mortgages of the fee interest in said real property to which Landlord's leasehold estate is not otherwise subject and subordinate;

and (ii) the provisions of this Article 23 shall in no way waive, abrogate or otherwise affect any agreement by any ground lessor (x) not to terminate this Lease incident to any termination of such ground lease prior to its term expiring or (y) not to name or join Tenant in any action or proceeding by such ground lessor to recover possession of such real property or for any other relief.

(h) In the event of any failure by Landlord to perform, fulfill or observe any agreement by Landlord herein, in no event will the Landlord be deemed to be in default under this Lease permitting Tenant to exercise any or all rights or remedies under this Lease until the Tenant shall have given written notice of such failure to any mortgagee (ground lessor and/or trustee) of which Tenant shall have been advised in writing and, with respect to any right which Tenant has to terminate the Lease, until a reasonable period of time shall have elapsed following the giving of such notice, during which such mortgagee (ground lessor and/or trustee) shall have the right, but shall not be obligated, to remedy such failure.

24. QUIET ENJOYMENT

Landlord covenants that if, and so long as, Tenant keeps and performs each and every covenant, agreement, term, provision and condition herein contained on the part and on behalf of Tenant to be kept and performed, Tenant shall quietly enjoy the Premises from and against the claims of all persons claiming by, through or under Landlord or superior title to Landlord, subject, nevertheless, to the covenants, agreements, terms, provisions and conditions of this Lease.

Without incurring any liability to Tenant, Landlord may permit access to the Premises and open the same, after reasonable notice to Tenant, except that no notice shall be required in an emergency, whether or not Tenant shall be present, upon any demand of any receiver of Tenant's estate, trustee of Tenant's estate, assignee for the benefit of creditors of Tenant, sheriff, marshal or court officer entitled to, or reasonably purporting to be entitled to, such access for the purpose of taking possession of, or removing, Tenant's property or for any other lawful purpose (but this provision and any action by Landlord hereunder shall not be deemed a recognition by Landlord that the person or official making such demand has any right or interest in or to this Lease, or in or to the Premises), or, · again after reasonable notice to Tenant, except that no notice shall be required in an emergency, upon demand of any representative of the fire, police, building, sanitation or other department of the city, state or federal governments.

25. ENTIRE AGREEMENT — WAIVER — SURRENDER

25.1 Entire Agreement. This Lease and the Exhibits made a part hereof contain the entire and only agreement between the parties and any and all statements and representations, written and oral, including previous correspondence and agreements between the parties hereto, are merged herein. Tenant acknowledges that all representations and statements upon which it relied in executing this Lease are contained herein and that the Tenant in no way relied upon any other statements or representations, written or oral. Any executory agreement hereafter made shall be ineffective to change, modify, discharge or effect an abandonment of this Lease in whole or in part unless such executory agreement is in writing and signed by the party against whom enforcement of the change, modification, discharge or abandonment is sought.

25.2 Waiver. The failure of either party to seek redress for violation, or to insist upon the strict performance, of any covenant or condition of this Lease, or any of the Rules and Regulations promulgated hereunder, shall not prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by Landlord of rent with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. The failure of Landlord to enforce any of such Rules and Regulations against Tenant and/or any other tenant in the Building shall not be deemed a waiver of any such Rules and Regulations. No provisions of this Lease shall be deemed to have been waived by either party unless such waiver be in writing signed by such party. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly rent herein stipulated shall be deemed to be other than on account of the stipulated rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such rent or pursue any other remedy in this Lease provided.

25.3 Surrender. No act or thing done by Landlord during the term hereby demised shall be deemed an acceptance of a surrender of the Premises, and no agreement to accept such surrender shall be valid, unless in

writing signed by Landlord. No employee of Landlord or of Landlord's agents shall have any power to accept the keys of the Premises prior to the termination of this Lease. The delivery of keys to any employee of Landlord or of Landlord's agents shall not operate as a termination of the Lease or a surrender of the Premises. In the event that Tenant at any time desires to have Landlord underlet the Premises for Tenant's account, Landlord or Landlord's agents are authorized to receive the keys for such purposes without releasing Tenant from any of the obligations under this Lease, and Tenant hereby relieves Landlord of any liability for loss of or damage to any of Tenant's effects in connection with such underletting unless, subject to Article 19, caused by the gross negligence or willful misconduct of Landlord or Landlord's agents or contractors (including subcontractors).

26. INABILITY TO PERFORM - EXCULPATORY CLAUSE

(a) Except as provided in Article 4.1 and 4.2 hereof, this Lease and the obligations of Tenant to pay rent hereunder and perform all the other covenants, agreements, terms, provisions and conditions hereunder on the part of Tenant to be performed shall in no way be affected, impaired or excused because Landlord is unable to fulfill any of its obligations under this Lease or is unable to supply or is delayed in supplying any service expressly or impliedly to be supplied or is unable to make or is delayed in making any repairs, replacements, additions, alterations, improvements or decorations or is unable to supply or is delayed in supplying any equipment or fixtures if Landlord is prevented or delayed from so doing by reason of strikes or labor troubles or any other similar or dissimilar cause whatsoever beyond Landlord's reasonable control, including but not limited to, governmental preemption in connection with a national emergency or by reason of any rule, order or regulation of any department or subdivision thereof of any governmental agency or by reason of the

conditions of supply and demand which have been or are affected by war, hostilities or other similar or dissimilar emergency. In each such instance of inability of Landlord to perform, Landlord shall exercise reasonable diligence to eliminate the cause of such inability to perform.

(b) Tenant shall neither assert nor seek to enforce any claim against Landlord, or Landlord's agents or employees, or the assets of Landlord or of Landlord's agents or employees, for breach of this Lease or otherwise, other than against Landlord's interest in the Complex of which the Premises are a part and in the uncollected rents, issues and profits thereof, 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 in no event shall Landlord or Landlord's agents or employees (or any of the officers, trustees, directors, partners, beneficiaries, joint venturers, members, stockholders or other principals or representatives, and the like, disclosed or undisclosed, thereof) 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 to take any other action which shall not involve the personal liability of Landlord to respond in monetary damages from Landlord's assets other than the Landlord's interest in said real estate, as aforesaid. In no event shall Landlord or Landlord's agents or employees (or any of the officers, trustees, directors, partners, beneficiaries, joint venturers, members, stockholders or other principals or representatives and the like, disclosed or undisclosed, thereof) ever be liable for consequential or incidental damages. Without limiting the foregoing, in no event shall Landlord or Landlord's agents or employees (or any of the officers, trustees, directors, partners, beneficiaries, joint venturers, members, stockholders or other principals or representatives and the like, disclosed or undisclosed, thereof) ever be liable for lost profits of Tenant. If by reason of Landlord's failure to acquire title to the real property of which the Premises are a part, Landlord shall be held to be in breach of this Lease, Tenant's sole and exclusive remedy shall be a right to terminate this Lease.

(c) Landlord shall not be deemed to be in default of its obligations under the Lease unless Tenant has given Landlord written notice of such default, and Landlord has failed to cure such default within thirty (30) days after Landlord receives such notice or such longer period of time as Landlord may reasonably require to cure such default. Except as otherwise expressly provided in this Lease, in no event shall Tenant have the right to terminate the Lease nor shall Tenant's obligation to pay Yearly Rent or other charges under this Lease abate based upon any default by Landlord of its obligations under the Lease.

(d) Except with respect to any liability which Tenant has to Landlord based upon any breach by Tenant of its obligations under Article 22: (i) in no event shall Tenant or Tenant's agents or employees (or any of the officers, trustees, directors, partners, beneficiaries, joint venturers, members, stockholders or other principals or

representatives and the like, disclosed or undisclosed, thereof) ever be liable for consequential or incidental damages, and (ii) in no event shall Tenant or Tenant's agents or employees (or any of the officers, trustees, directors, partners, beneficiaries, joint venturers, members, stockholders or other principals or representatives and the like, disclosed or undisclosed, thereof) ever be liable for lost profits of Landlord.

27. BILLS AND NOTICES

Any notice, consent, request, bill, demand or statement hereunder by either party to the other party shall be in writing and, if received at Landlord's or Tenant's address shall be deemed to have been duly given when either delivered or served personally or mailed in a postpaid envelope, deposited in the United States mail addressed to Landlord at its address as stated in Exhibit 1 and to Tenant at the Premises (or at Tenant's address as stated in Exhibit 1, if mailed prior to Tenant's occupancy of the Premises), or if any address for notices shall have been duly changed as hereinafter provided, if mailed as aforesaid to the party at such changed address. Either party may at any time change the address or specify an additional address for such notices, consents, requests, bills, demands or statements by delivering or mailing, as aforesaid, to the other party a notice stating the change and setting forth the changed or additional address, provided such changed or additional address is within the United States.

If Tenant is a partnership, Tenant, for itself, and on behalf of all of its partners, hereby appoints Tenant's Service Partner, as identified on Exhibit 1, to accept service of any notice, consent, request, bill, demand or statement hereunder by Landlord and any service of process in any judicial proceeding with respect to this Lease on behalf of Tenant and as agent and attorney-in-fact for each partner of Tenant.

All bills and statements for reimbursement or other payments or charges due from Tenant to Landlord hereunder shall be due and payable in full twenty (20) business days, unless herein otherwise provided, after submission thereof by Landlord to Tenant. Tenant's failure to make timely payment of any amounts indicated by such bills and statements, whether for work done by Landlord at Tenant's request, reimbursement provided for by this Lease or for any other sums properly owing by Tenant to Landlord, shall be treated as a default in the payment of rent, in which event Landlord shall have all rights and remedies provided in this Lease for the nonpayment of rent, subject to applicable notice and cure provisions.

28. PARTIES BOUND — SEIZIN OF TITLE

The covenants, agreements, terms, provisions and conditions of this Lease shall bind and benefit the successors and assigns of the parties hereto with the same effect as if mentioned in each instance where a party hereto is named or referred to, except that no violation of the provisions of Article 16 hereof shall operate to vest any rights in any successor or assignee of Tenant and that the provisions of this Article 28 shall not be construed as modifying the conditions of limitation contained in Article 21 hereof.

If, in connection with or as a consequence of the sale, transfer or other disposition of the real estate (land and/or Building, either or both, as the case may be) of which the Premises are a part, Landlord ceases to be the owner of the reversionary interest in the Premises, Landlord shall be entirely freed and relieved from the performance and observance thereafter of all covenants and obligations hereunder on the part of Landlord to be thereafter performed and observed, it being understood and agreed in such event (and it shall be deemed and construed as a covenant running with the land) that the person succeeding to Landlord's ownership of said reversionary interest shall thereupon and thereafter assume, and perform and observe, any and all of such covenants and obligations of Landlord.

29. MISCELLANEOUS

29.1 Separability. If any provision of this Lease or portion of such provision or the application thereof to any person or circumstance is for any reason held invalid or unenforceable, the remainder of the Lease (or the remainder of such provision) and the application thereof to other persons or circumstances shall not be affected thereby.

29.2 Captions, etc. The captions are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of this Lease nor the intent of any provisions thereof References to "State" shall mean, where appropriate, the District of Columbia and other Federal territories, possessions, as well as a state

of the United States.

29.3 Broker. Tenant represents and warrants that it has not directly or indirectly dealt, with respect to the leasing of space in the Building or Complex of which it is a part (called "Building, etc." in this Article 29.3) with any broker or had its attention called to the Premises or other space to let in the Building, etc. by anyone other than the brokers designated in Exhibit 1. Tenant agrees to defend, exonerate and save harmless and indemnify Landlord and anyone claiming by, through or under Landlord against any claims for a commission arising in connection with any breach of the foregoing representation and warranty, provided that Landlord shall be solely responsible for the payment of brokerage commissions to the broker, person or firm, if any, designated in Exhibit 1. Landlord represents and warrants that, in connection with the execution and delivery of the Lease, it has not directly or indirectly dealt with any broker other than the brokers designated on Exhibit 1. Landlord agrees to defend, exonerate and save harmless Tenant and anyone claiming by, through, or under Tenant against any claims arising in connection with any breach of the representation and warranty set forth in the immediately preceding sentence.

29.4 Arbitration. Any disputes relating to provisions or obligations in this Lease as to which a specific provision for a reference to arbitration is made herein shall be submitted to arbitration in accordance with the provisions of applicable state law (as identified on Exhibit 1), as from time to time amended. Arbitration proceedings, including the selection of an arbitrator, shall be conducted pursuant to the rules, regulations and procedures from time to time in effect as promulgated by the American Arbitration Association. Prior written notice of application by either party for arbitration shall be given to the other at least ten (10) days before submission of the application to the said Association's office in the City wherein the Building is situated (or the nearest other city having an Association office). The arbitrator shall hear the parties and their evidence. The decision of the arbitrator shall be binding and conclusive, and judgment upon the award or decision of the arbitrator may be entered in the appropriate court of law (as identified on Exhibit 1); and the parties consent to the jurisdiction of such court and further agree that any process or notice of motion or other application to the Court or a Judge thereof may be served outside the State wherein the Building is situated by registered mail or by personal service, provided a reasonable time for appearance is allowed. The costs and expenses of each arbitration hereunder and their apportionment between the parties shall be determined by the arbitrator in his award or decision. No arbitrable dispute shall be deemed to have arisen under this Lease prior to (i) the expiration of the period of twenty (20) days after the date of the giving of written notice by the party asserting the existence of the dispute together with a description thereof sufficient for an understanding thereof; and (ii) where a Tenant payment (e.g., Tax Share or Operating Expense Share under Article 9 hereof) is in issue, the amount billed in good faith by Landlord having been paid by Tenant.

29.6 Governing Law. This Lease is made pursuant to, and shall be governed by, and construed in accordance with, the laws of the State wherein the Building is situated and any applicable local municipal rules, regulations, by-laws, ordinances and the like.

29.7 Assignment of Rents. With reference to any assignment by Landlord of its interest in this Lease, or the rents payable hereunder, conditional in nature or otherwise, which assignment is made to or held by a bank, trust company, insurance company or other institutional lender holding a mortgage or ground lease on the Building, Tenant agrees:

(a) that the execution thereof by Landlord and the acceptance thereof by such mortgagee and/or ground lessor shall never be deemed an assumption by such mortgagee and/or ground lessor of any of the obligations of the Landlord thereunder, unless such mortgagee and/or ground lessor shall, by written notice sent to the Tenant, specifically otherwise elect; and

(b) that, except as aforesaid, such mortgagee and/or ground lessor shall be treated as having assumed the Landlord's obligations thereunder only upon foreclosure of such mortgagee's mortgage or deed of trust (or acceptance of a deed in lieu of foreclosure) or termination of such ground lessor's ground lease or the taking of possession of the Premises for the purposes of foreclosure after having given notice of its exercise of the option stated in Article 23 hereof to succeed to the interest of the Landlord under this Lease.

29.8 Representation of Authority. By his execution hereof each of the signatories on behalf of the respective parties hereby warrants and represents to the other that he is duly authorized to execute this Lease on behalf of such party. If Tenant is a corporation, Tenant hereby appoints the signatory whose name appears below on behalf of Tenant as Tenant's attorney-in-fact for the purpose of executing this Lease for and on behalf of Tenant.

29.9 Expenses Incurred by Landlord Upon Tenant Requests. Tenant shall, upon demand, reimburse Landlord for all reasonable third party, out-of-pocket expenses, including, without limitation, legal fees, incurred by Landlord in connection with all requests by Tenant for consents, approvals or execution of collateral documentation related to this Lease, including, without limitation, costs incurred by Landlord in the review and approval of Tenant's plans and specifications in connection with proposed alterations to be made by Tenant to the Premises, requests by Tenant to sublet the Premises or assign its interest in the Lease, the execution by Landlord of estoppel certificates requested by Tenant, and requests by Tenant for Landlord to execute waivers of Landlord's interest in Tenant's property in connection with third party financing by Tenant. Such costs shall be deemed to be additional rent under the Lease.

29.10 Survival. Without limiting any other obligation of the Tenant which may survive the expiration or prior termination of the term of the Lease, all obligations on the part of Landlord or Tenant to indemnify, defend, or hold the other harmless, as set forth in this Lease (including, without limitation, any obligations under Articles 13(d), 15.3, and 29.3) shall survive the expiration or prior termination of the term of the Lease with respect to events that occur before such expiration or prior termination of the term of the Lease.

29.11 Hazardous Materials. Landlord and Tenant agree as follows with respect to the existence or use of "Hazardous Material" in or on the Premises.

(a) Tenant, at its sole cost and expense, shall comply with all laws, statutes, ordinances, rules and regulations of any local, state or federal governmental authority having jurisdiction concerning environmental, health and safety matters (collectively, "Environmental Laws"), including, but not limited to, any discharge by Tenant or anyone for whom Tenant is legally responsible into the air, surface, water, sewers, soil or groundwater of any

Hazardous Material (as defined in Article 29.11(c)), whether within or outside the Premises within the Complex. Notwithstanding the foregoing, nothing contained in this Lease requires, or shall be construed to require, Tenant to incur any liability related to or arising from environmental conditions (i) for which the Landlord is responsible pursuant to the terms of this Lease, or (ii) which existed within the Premises or the Complex prior to the date Tenant took (in the case of the Existing Lab/Office Premises, Basement Premises and Storage Space) or takes (in the case of the Expansion Space) possession of the Premises.

(b) Tenant shall not cause or permit any Hazardous Material to be brought upon, kept or used in or about the Premises or otherwise in the Complex by Tenant, its agents, employees, contractors or invitees, without the prior written consent of Landlord, except for Hazardous Materials which are typically used in the operation of offices or laboratories and those Hazardous Materials identified on Exhibit 7, provided that such materials are stored, used and disposed of in strict compliance with all applicable Environmental Laws and with good scientific and medical practice. Landlord and Tenant agree that a certain number of control areas on each floor of the Premises have been allocated for use by Tenant for the storage of specified amounts of specified categories of Hazardous Materials as expressly designated on Exhibit 7A in the columns entitled “Merrimack Control Areas” and “Merrimack Allowance”. Tenant shall not exceed the storage amounts set forth in said Exhibit 7A that are allocated to Tenant. Tenant acknowledges that in order to accommodate Tenant’s needs as of the Execution Date, Landlord has allocated to Tenant storage capacity on the first (1st) floor of the Building based upon an additional 5,000 rentable square feet of premises than that leased by Tenant hereunder as of the Execution Date. Accordingly, Tenant acknowledges and agrees that in the event Tenant and Landlord, at some point after the date of this Lease, agree to expand the Premises demised to Tenant on the first (1st) floor of the Building, the storage amounts allocable to Tenant for the 1st floor as set forth in Exhibit 7A will not change if the additionally demised space is not greater than 5,000 rentable square feet. If the additionally demised space is greater than 5,000 rentable square feet then Tenant’s storage capacity as set forth on Exhibit 7A for the 1st floor will increase proportionately based upon a percentage determined by dividing Tenant’s additionally demised laboratory space in excess of 5,000 rentable square feet by the rentable square feet of all laboratory space on the first (1st) floor. Notwithstanding the foregoing, with respect to any of Tenant’s Hazardous Material which Tenant does not properly handle, store or dispose of in compliance with all applicable Environmental Laws and good scientific and medical practice, Tenant shall, upon written notice from Landlord, no longer have the right to bring such material into the buildings or the Complex until Tenant has demonstrated, to Landlord’s reasonable satisfaction, that Tenant has implemented programs to thereafter properly handle, store or dispose of such material.

(c) As used herein, the term “Hazardous Material” means any hazardous or toxic substance, material

or waste or petroleum derivative which is or becomes regulated by any Environmental Law, specifically including live organisms, viruses and fungi, medical waste, and so-called “biohazard” materials. The term “Hazardous Material” includes, without limitation, any material or substance which is (i) designated as a “hazardous substance” pursuant to Section 1311 of the Federal Water Pollution Control Act (33 U.S.C. Section 1317), (ii) defined as a “hazardous waste” pursuant to Section 1004 of the Federal Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. (42 U.S.C. Section 6903), (iii) defined as a “hazardous substance” pursuant to Section 101 of the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq. (42 U.S.C. Section 9601), (iv) defined as “hazardous substance” or “oil” under Chapter 2IE of the General Laws of Massachusetts, or (v) a so-called “biohazard” or medical waste, or is contaminated with blood or other bodily fluids; and “Environmental Laws” include, without limitation, the laws listed in the preceding clauses (i) through (iv).

(d) Any increase in the premium for necessary insurance on the Premises or the Complex which arises from Tenant’s use and/or storage of these Hazardous Materials shall be solely at Tenant’s expense. Tenant shall procure and maintain at its sole expense such additional insurance as may be necessary to comply with any requirement of any Federal, State or local government agency with jurisdiction as to Tenant’s operations at the Premises. Landlord hereby agrees that Tenant shall not be charged with any increase in insurance premiums based upon its use, in the Premises of the Hazardous Materials listed on Exhibit 7, so long as Tenant handles, stores, transports and disposes of the same in accordance with applicable Environmental Laws.

(e) Tenant hereby covenants and agrees to indemnify, defend and hold Landlord harmless from any and all claims, judgments, damages, penalties, fines, costs, liabilities or losses (collectively “Losses”) which Landlord may reasonably incur arising out of contamination of real estate, the Complex or other property not a part of the Premises, which contamination arises as a result of: (i) the presence of Hazardous Material in the Premises, the presence of which commences during the term of the Lease or, with respect only to the Existing Lab/Office Premises, Basement Premises and Storage Space, the term of the Prior Lease or any period of time when Tenant, or anyone claiming by, through or under Tenant occupies the Premises is caused or knowingly permitted by Tenant, or (ii) from a breach by Tenant of its obligations under this Article 29.11. This indemnification of Landlord by Tenant includes, without limitation, reasonable costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any federal, state or local governmental agency or political subdivision because of Hazardous Material present in the soil or ground water on or under the Premises based upon the circumstances identified in the first sentence of this Article 29.11(e). The indemnification and hold harmless obligations of Tenant under this Article 29.11(e) shall survive any termination of this Lease with respect to any act or omission which occurs during the term of this Lease or any period of time during which Tenant, or anyone claiming by, through or under Tenant continues to occupy the Premises. Without limiting the foregoing, if the presence of any Hazardous Material in the buildings or otherwise in the Complex caused or knowingly permitted by Tenant results in any contamination of the Premises, Tenant shall promptly take all actions at its sole expense as are necessary to return the Premises to a condition which complies with all Environmental Laws; provided that Landlord’s approval of such actions shall first be obtained, which approval shall not be unreasonably withheld so long as such actions, in Landlord’s reasonable discretion, would not potentially have any materially adverse long-term or short-term effect on the Premises, and, in any event, Landlord shall not withhold its approval of any proposed actions which are required by applicable Environmental Laws.

(f) On or before the date that Tenant, and anyone claiming by, through or under Tenant, vacates the Premises, and immediately prior to the time that Tenant delivers the Premises to Landlord, Tenant shall:

1. Cause the Premises to be decommissioned 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, cause the Premises to be released for unrestricted use by the Radiation Control Program of the Massachusetts Department of Public Health for the control of radiation, and deliver to Landlord the report of a certified industrial hygienist stating that he or she has examined the Premises and found no evidence that such portion contains Hazardous Materials, as defined in this Article 29.11, or is otherwise in violation of any Environmental Law, as defined in this Article 29.11 hereof

2. Provide to Landlord a copy of its most current chemical waste removal manifest and a certification from Tenant executed by an officer of Tenant that no Hazardous Materials or other potentially dangerous or harmful chemicals brought onto the Premises from and after the date that

Tenant first took occupancy of the Premises remain in the Premises.

(g) Landlord represents and warrants that, except as set forth in the Environmental Assessment Report referenced on Exhibit 12 attached hereto, Landlord is unaware of the existence of any Hazardous Material on the land or in the Building, including its interior, systems or structure (collectively, the "Property") which is in violation of applicable Environmental Laws (Tenant acknowledging that a portion of the Building and Complex are leased to tenants who use their premises for laboratory purposes). Landlord shall indemnify Tenant and hold it harmless against any claims, damages, losses or liabilities (including reasonable attorneys' fees) arising from any breach of the representations and warranties set forth in this Article 29.11(g) and from claims, damages, losses or liabilities arising in the event that Landlord, Landlord's agents, employees or contractors release Hazardous Materials onto the Complex.

(h) If any Hazardous Materials are discovered on the Property which are in violation of Environmental Law, then so long as Tenant is not responsible for the same in accordance with this Article 29.11, Landlord shall cause the same to be removed or remediated when, if, and in the manner required by applicable Environmental Law. Landlord may, if allowed by the provisions of Article 9.1(0, include the costs so incurred by Landlord in Operating Costs.

29.12 Patriot Act. Tenant represents and warrants to Landlord that:

(A) Tenant is not in violation of any Anti-Terrorism Law;

(B) Tenant is not, as of the date hereof:

(i) conducting any business or engaging in any transaction or dealing with any Prohibited Person, including the making or receiving of any contribution of funds, goods or services to or for the benefit of any Prohibited Person;

(ii) dealing in, or otherwise engaging in any transaction relating to, any property or interests in property blocked pursuant to Executive Order No. 13224; or

(iii) engaging in or conspiring to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate any of the prohibitions set forth in, any Anti-Terrorism Law; and

(C) Neither Tenant nor any of its affiliates, officers, directors, shareholders, members or lease guarantor, as applicable, is a Prohibited Person.

If at any time any of these representations becomes false, then it shall be considered a material default under this Lease.

As used herein, "Anti-Terrorism Law" is defined as any law relating to terrorism, anti-terrorism, money-laundering or anti-money laundering activities, including without limitation the United States Bank Secrecy Act, the United States Money Laundering Control Act of 1986, Executive Order No. 13224, and Title 3 of the USA Patriot Act, and any regulations promulgated under any of them. As used herein "Executive Order No. 13224" is defined as Executive Order No. 13224 on Terrorist Financing effective September 24, 2001, and relating to "Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism", as may be amended from time to time. "Prohibited Person" is defined as (i) a person or entity that is listed in the Annex to Executive Order No. 13224, or a person or entity owned or controlled by an entity that is listed in the Annex to Executive Order No. 13224; (ii) a person or entity with whom Landlord is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law; or (iii) a person or entity that is named as a "specially designated national and blocked person" on the most current list published by the U.S. Treasury Department Office of Foreign Assets Control at its official website, http://www.treas.gov/ofacklIsdn.pdf or at any replacement website or other official publication of such list. "USA Patriot Act" is defined as the "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001" (Public Law 107-56), as

may be amended from time to time.

29.13 Security Deposit. A. Tenant acknowledges that Landlord is unwilling to execute the Lease unless Tenant provides Landlord with additional security for Tenant's obligations under the Lease. Therefore, Tenant shall deliver to Landlord, on the date that Tenant executes and delivers the Lease to Landlord, an Irrevocable Standby Letter of Credit ("Letter of Credit") which shall be (1) in the form attached hereto as Exhibit 5, (2) issued by a bank reasonably acceptable to Landlord with minimum assets of Ten Billion Dollars ($10,000,000,000 00), upon which presentment may be made in Boston, Massachusetts (3) in an amount equal to Five Hundred Twenty-Eight Thousand One Hundred and Thirty and 84/100 ($528,130.84) Dollars and (4) for a term of one (1) year, subject to extension in accordance with the terms of the Letter of Credit. Notwithstanding the foregoing, Landlord hereby expressly approves Cambridge Savings Bank as an issuer of the Letter of Credit. Tenant shall, on or before the date thirty (30) days prior to the expiration of the term of such Letter of Credit, deliver to Landlord a new Letter of Credit satisfying the foregoing conditions ("Substitute Letter of Credit") in lieu of the Letter of Credit then being held by Landlord. The Letter of Credit shall be automatically renewable in accordance with the provisions of Exhibit 5; provided that if the issuer of such Letter of Credit gives notice of its election not to renew such Letter of Credit for any additional period pursuant thereto, Tenant shall be required to deliver a Substitute Letter of Credit satisfying the conditions hereof, on or before the date thirty (30) days prior to the expiration of the term of such Letter of Credit. Tenant agrees that it shall from time to time, as necessary, whether as a result of a draw on the Letter of Credit by Landlord pursuant to the terms hereof or as a result of the expiration of the Letter of Credit then in effect, renew or replace the original and any subsequent Letter of Credit so that a Letter of Credit, in the amount required hereunder, is in effect until a date which is at least sixty (60) days after the Termination Date of the Lease. If Tenant fails to furnish such renewal or replacement at least thirty (30) days prior to the stated expiration date of the Letter of Credit then held by Landlord, Landlord may draw upon such Letter of Credit and hold the proceeds thereof (and such proceeds need not be segregated) as a Security Deposit pursuant to the terms of this Article 29.13.

B. In the event that Tenant is in default of its obligations under the Lease, which default continues beyond the applicable notice and cure period set forth in Article 21.7, then the Landlord shall have the right, at any time after such event, without giving any further notice to Tenant, to draw down

from said Letter of Credit (Substitute Letter of Credit or Additional Letter of Credit, as defined below, as the case may be) (a) the amount necessary to cure such default or (b) if such default cannot reasonably be cured by the expenditure of money, the amount which, in Landlord's reasonable opinion, is necessary to satisfy Tenant's liability on account thereof. In the event of any such draw by the Landlord, Tenant shall, within fifteen (15) business days of written demand therefor, deliver to Landlord an additional Letter of Credit satisfying the foregoing conditions ("Additional Letter of Credit"), except that the amount of such Additional Letter of Credit shall be the amount of such draw. In addition, in the event of a termination of this Lease based upon the default of Tenant under the Lease, or a rejection of the Lease pursuant to the provisions of the Federal Bankruptcy Code (in connection with Tenant's bankruptcy), Landlord shall have the right to draw upon the Letter of Credit (from time to time, if necessary) to cover the full amount of damages and other amounts due from Tenant to Landlord under the Lease. Any amounts so drawn shall, at Landlord's election, be applied first to any unpaid rent and other charges which were due prior to the filing of the petition for protection under the Federal Bankruptcy Code. Tenant hereby covenants and agrees not to oppose, contest or otherwise interfere with any attempt by Landlord to draw down from said Letter of Credit including, without limitation, by commencing an action seeking to enjoin or restrain Landlord from drawing upon said Letter of Credit. Tenant also hereby expressly waives any right or claim it may have to seek such equitable relief in such an instance. In addition to whatever other rights and remedies it may have against Tenant if Tenant breaches its obligations under this paragraph, Tenant hereby acknowledges that it shall be liable for any and all damages which Landlord may suffer as a result of any such breach.

C. Upon request of Landlord or any (prospective) purchaser or mortgagee of the Building, Tenant shall, at its expense, cooperate with Landlord in obtaining an amendment to or replacement of any Letter of Credit which Landlord is then holding so that the amended or new Letter of Credit reflects the name of the new owner of the Building.

D. To the extent that Landlord has not previously drawn upon any Letter of Credit, Substitute Letter of Credit, Additional Letter of Credit or security deposit proceeds (collectively "Collateral") held by the Landlord, and to the extent that Tenant is not otherwise in default of its obligations under the Lease as of the termination date of the Lease, Landlord shall return such Collateral to Tenant on the termination of the term of the Lease.

E. In no event shall the proceeds of any Letter of Credit be deemed to be a prepayment of rent nor shall it be considered as a measure of liquidated damages.

29.14 Tenant's Option to Extend the Term of the Lease.

A. Provided Tenant is not in default of any of its obligations under the Lease beyond the applicable notice and cure periods, and that Merrimack Pharmaceuticals, Inc., itself and/or any Permitted Transferees (as defined in Article 16 of this Lease) are occupying at least sixty-five percent (65%) of the Total Rentable Area of the Premises then demised to Tenant, both at the time of the option exercise and at the time of commencement of the herein described extended term, Tenant shall have the option to extend the term of this Lease with respect to the entire Premises for either (a) one (1) additional five (5) year term by giving Landlord written notice no later than March 31, 2018 (the "Extension A Option") or (b) one (1) additional one (1) year term by giving Landlord written notice no later than December 31, 2016 (the Extension B Option")(each such notice being an "Extension Notice"). Upon the timely giving of such Extension Notice, the term of this Lease shall be deemed extended upon all of the terms and conditions of this Lease, except that Landlord shall have no obligation to construct or renovate the Premises or to provide any improvement allowances and that the Yearly Rent during such additional term shall be as hereinafter set forth. If Tenant fails to give timely notice, as aforesaid, Tenant shall have no further right to extend the term of this Lease, time being of the essence of this Article 29.14.

B. Yearly Rent

The Yearly Rent during the additional term shall be based upon the Fair Market Rental Value, as defined in Article 29.15 hereof, as of the commencement of the additional term, of the Premises then demised to Tenant. Landlord shall upon written request from Tenant, made on or after January 1, 2018, in the case of the Extension A Option, and on or after October 1, 2016, in the case of the Extension B Option, advise Tenant of Landlord's offer ("Landlord's Offer") as to the Yearly Rent which will be payable by Tenant during the additional term within fifteen (15) business days after Landlord receives such request from Tenant. If Tenant timely exercises its extension option, but Tenant does not accept Landlord's Offer in writing either in the Extension Notice or otherwise, then Tenant shall be deemed to have rejected Landlord's Offer. If Tenant timely exercises its extension option and Tenant either objects to Landlord's Offer, or Tenant is deemed to have objected to Landlord's Offer as aforesaid, then the term of the Lease shall be deemed extended, as aforesaid, the provisions of Article 29.15 shall apply to the determination of Fair Market Rental Value with Tenant submitting such Fair Market Rental Value determination to arbitrate as set forth in Article 29.15, and Landlord's Offer shall be deemed to be non-binding and without any force or effect. In the event Tenant exercises Extension B Option, in no event shall Yearly Rent be less than the Yearly Rent payable immediately prior to the commencement of the additional term.

C. Tenant shall have no further option to extend the term of the Lease other than the Extension A Option or Extension B Option provided in this Article 29.14.

D. Notwithstanding the fact that upon Tenant's exercise of the herein option to extend the term of the Lease such extension shall be self-executing, as aforesaid, the parties shall promptly execute a lease amendment reflecting such additional term after Tenant exercises the herein option, except that the Yearly Rent payable in respect of such additional term may not be set forth in said amendment. Subsequently, after such Yearly Rent is determined, the parties shall execute a written agreement confirming the same. The execution of such lease amendment shall not be deemed to waive any of the conditions to Tenant's exercise of its rights under this Article 29.14, unless otherwise specifically provided in such lease amendment.

29.15 Definition of Fair Market Rental Value.

A. "Fair Market Rental Value" shall be computed as of the date in question based upon the then current annual rental charge (i.e., the sum of Yearly Rent plus escalation and other charges), including provisions for subsequent increases and other adjustments for leases or agreements to lease then currently being negotiated, or executed for comparable space located in the Building and in comparable first-class office and laboratory buildings located in Kendall Square/East Cambridge, Massachusetts. In determining Fair Market Rental Value, the following factors, among others, shall be taken into account and given effect: the charges payable under this Lease (including Tax Share and Operating Expense Share), the construction allowances (or the Landlord's buildout expense) in leases then currently being negotiated or executed for comparable space (and the absence of any construction allowance or

landlord's buildout expense in connection with the extension of the Lease), free rent or other concessions in leases then currently being negotiated or executed for comparable space, size of premises, location of premises, lease term, condition of building, the condition of the premises and services provided by the Landlord.

B. Dispute as to Fair Market Rental Value

Landlord shall initially designate Fair Market Rental Value and Landlord shall furnish data in support of such designation (the parties hereby acknowledging that Landlord's Offer shall not be considered to be Landlord's designation of Fair Market Rental Value for the purposes of this Article 29.15B). If Tenant disagrees with Landlord's designation of a Fair Market Rental Value, Tenant shall have the right, by written notice given within thirty (30) days after Tenant has been notified of Landlord's designation, to submit such Fair Market Rental Value to arbitration. Fair Market Rental Value shall be submitted to arbitration as follows: Fair Market Rental Value shall be determined by impartial arbitrators, one to be chosen by the Landlord, one to be chosen by Tenant, and a third to be selected, if necessary, as below provided. The unanimous written decision of the two first chosen, without selection and participation of a third arbitrator, or otherwise, the written decision of a majority of three arbitrators chosen and selected as aforesaid, shall be conclusive and binding upon Landlord and Tenant. Notwithstanding the foregoing, if no two arbitrators agree upon the same Fair Market Rental Value, then the Fair Market Rental Value shall be the average of the closest Fair Market Rental Values determined by arbitrators, but if the three are equidistant, the middle one shall be used. Landlord and Tenant shall each notify the other of its chosen arbitrator within ten (10) days following the call for arbitration and, unless such two arbitrators shall have reached a unanimous decision within thirty (30) days after their designation, they shall so notify the President of the Boston Bar Association (or such organization as may succeed to said Boston Bar Association) and request him to select an impartial third arbitrator. Each arbitrator shall be a real estate broker or real estate appraiser with at least ten year's experience in dealing with laboratory and office properties in the Cambridge market, who is qualified to determine Fair Market Rental Value as herein defined. Such third arbitrator and the first two chosen shall, subject to commercial arbitration rules of the American Arbitration Association, hear the parties and their evidence and render their decision within thirty (30) days following the conclusion of such hearing and notify Landlord and Tenant thereof. Landlord and Tenant shall bear the expense of the third arbitrator (if any) equally. The decision of the arbitrators shall be binding and conclusive, and judgment upon the award or decision of the arbitrator may be entered in the appropriate court of law (as identified on Exhibit 1); and the parties consent to the jurisdiction of such court and further agree that any process or notice of motion or other application to the Court or a Judge thereof may be served outside the Commonwealth of Massachusetts by registered mail or by personal service, provided a reasonable time for appearance is allowed. If the dispute between the parties as to a Fair Market Rental Value has not been resolved before the commencement of Tenant's obligation to pay rent based upon such Fair Market Rental Value, then Tenant shall pay Yearly Rent and other charges under the Lease in respect of the premises in question based upon the Fair Market Rental Value designated by Landlord until either the agreement of the parties as to the Fair Market Rental Value, or the decision of the arbitrators, as the case may be, at which time Tenant shall pay any underpayment of rent and other charges to Landlord, or Landlord shall refund any overpayment of rent and other charges to Tenant.

29.16 Tenant's Right of First Offer. On the conditions (which conditions Landlord may waive, at its election, by written notice to Tenant at any time) that: (i) Tenant is not in default of its covenants and obligations under the Lease beyond the applicable notice and cure period, (ii) the Lease is then in full force and effect, and (iii) Merrimack Pharmaceuticals, Inc., itself and/or one (1) or more Permitted Transferees are occupying at least sixty-five percent (65%) of the Total Rentable Area of the Premises then demised to Tenant, both at the time that Landlord is required to give Landlord's Notice, as hereinafter defined, and as of the Term Commencement Date in respect of the RFO Premises, Tenant shall have the following continuous right to lease each RFO Premises, as hereinafter defined, when such RFO Premises become available for lease to Tenant, as hereinafter defined.

A. Definition of RFO Premises

"RFO Premises" shall be defined as any separately demised area in Building 600/650/700 and Building 200, when such area becomes available for lease, as hereinafter defined. For the purposes of this Article 29.16, an RFO Premises shall be deemed to be "available for lease to Tenant" if, during the term of this Lease (including any extension thereof), Landlord, in its sole judgment, determines that such area will become available for leasing to the general public (i.e. when Landlord determines that: (i) the then current tenant of such RFO Premises will vacate such RFO Premises, (ii) all Superior Rights, as hereinafter defined, in such area have either been irrevocably waived

or have lapsed unexercised, and when Landlord intends to offer such area for lease). Landlord shall not be required to provide a Landlord's Notice with regard to any RFO Premises that are "available for lease to Tenant" as of the Execution Date of this Lease until such time as such spaces are subsequently leased and thereafter become "available for lease to Tenant".

B. Definition of Superior Rights

Tenant's rights under this Article 29.16 are subject to and subordinate to: (i) all rights of extension, renewal, expansion, first offer, and first refusal which exist as of the Execution Date of the Lease and Landlord represents and warrants to Tenant that the tenants with existing rights of expansion, first offer and right of first refusal are as set forth on Exhibit 14 attached hereto, and (ii) Landlord's right to enter into an agreement with a tenant of any RFO Premises for the purposes of renewing or extending such tenant's lease, even if such tenant does not possess such rights in its lease.

C. Exercise of Right to Lease RFO Premises

Landlord shall give Tenant written notice ("Landlord's Notice") at the time that Landlord determines, as aforesaid, that an RFO Premises will become available for lease and that all Superior Rights in such RFO Premises, if any, have lapsed unexercised or have been irrevocably waived. Landlord's Notice shall set forth the exact location of the RFO Premises and the fair market terms and conditions upon which Landlord is willing to lease such RFO Premises (collectively, the "Fair Market Terms and Conditions"), which shall include, without limitation and in each case as may be applicable, Landlord's designation of the Fair Market Rental Value (as defined in Article 29.15 hereof) applicable to the RFO Premises, the terms regarding any free rent period(s) and other concessions, tenant improvement or construction allowances, the anticipated commencement date in respect of the RFO Premises, and the Termination Date in respect of the RFO Premises, as hereinafter defined. Tenant shall have the right, exercisable upon written notice ("Tenant's Exercise Notice") given to Landlord within twenty (20) days after the receipt of Landlord's Notice, to lease the RFO Premises. If Tenant desires to exercise its rights under this Section 29.16 but disagrees with the Fair Market Terms and Conditions designated by Landlord in Landlord's Notice, Tenant shall deliver the Tenant's Exercise Notice in the time period allotted herein and include Tenant's determination of Fair Market Terms and Conditions. In such event, Landlord and Tenant agree to negotiate in good faith for up to thirty (30) days thereafter to come to agreement on the Fair Market Terms and Conditions. In the event

the parties cannot reach agreement within said thirty (30) day period then the matter shall be submitted to arbitration in accordance with the provisions of Section 29.4 of the Lease. If Tenant fails to timely to give Tenant's Exercise Notice or declines to exercise its rights, Tenant shall have no further right to lease such RFO Premises pursuant to this Article 29.16, unless such RFO Premises again becomes available for lease to Tenant after the occupancy of the next tenant to lease such RFO Premises; in such event Landlord shall be free to lease the RFO Premises to a third party on substantially the same economic terms and conditions as the Fair Market Terms and Conditions contained in Landlord's Notice but in any event not less than 92.5% of such Fair Market Terms and Conditions, taken in the aggregate. In such event, within ten (10) days of Landlord's request therefor, Tenant shall execute a certificate confirming its election to decline to lease such RFO Space . Upon the Tenant's exercise of its rights hereunder and the determination of Fair Market Terms and Conditions, Landlord shall lease and demise to Tenant and Tenant shall hire and take from Landlord, such RFO Premises, upon all of the same terms and conditions of the Lease except as otherwise set forth below and in the Fair Market Terms and Conditions of Landlord's Notice.

D. Lease Provisions Applying to RFO Premises

The leasing to Tenant of each RFO Premises shall be upon all of the same terms and conditions of the Lease applicable to the Premises initially demised to Tenant ("Existing Premises"), except as modified by the Fair Market Terms and Conditions set forth in the Landlord's Notice (as determined in accordance with Section 29.16C. above) and except as otherwise set forth in the following:

1. Term Commencement Date

The Term Commencement Date in respect of such RFO Premises shall be the later of: (x) the anticipated commencement date in respect of such RFO Premises as set forth in Landlord's Notice, or (y) the date that Landlord delivers such RFO Premises to Tenant.

(2) Termination Date

The Termination Date in respect of such RFO Premises shall be coterminous with the termination date of the then existing Premises. Notwithstanding the foregoing, however, if Tenant's Exercise Notice is given at such time when there is less than thirty-six (36) months remaining in the term of the Lease then (a) if the RFO Premises that is the subject of Landlord's Notice is 20,000 rentable square feet or less then the Termination Date in respect of such RFO Premises shall be thirty-six (36) months from the commencement date for such RFO Premises and (b) if the RFO Premises that is the subject of Landlord's Notice is greater than 20,000 rentable square feet then the Termination Date in respect of such RFO Premises shall be forty-eight (48) months from the commencement date for such RFO Premises.

(3) Yearly Rent

The Yearly Rent in respect of such RFO Premises shall be based upon the Fair Market Rental Value, as defined and determined in accordance with Articles 29.15A and 29.15B and this Article 29.16.

E. *Execution of Lease Amendments*

Notwithstanding the fact that Tenant's exercise of the above described option to lease RFO Premises shall be self executing, as aforesaid, the parties hereby agree promptly to execute a lease amendment reflecting the addition of an RFO Premises, except that the Yearly Rent payable in respect of such RFO Premises and certain other terms and conditions may not be as set forth in such Amendment if same has yet to be determined. At the time that such Yearly Rent and any other remaining terms and conditions are determined, the parties shall execute a written agreement confirming the same. The execution of such lease amendment shall not be deemed to waive any of the conditions to Tenant's exercise of the herein option to lease the RFO Premises, unless otherwise specifically provided in such lease amendment.

F. In addition to Tenant's above-described option to lease RFO Premises, Landlord agrees to advise Tenant during the term of the Lease as to all spaces in the Building that Landlord expects to become available for lease to Tenant, as defined in Article 29.16A. Tenant shall not be deemed to have been granted any right to lease any premises in the Building pursuant to this Article 29.16F (the parties hereby acknowledging that the purposes of Landlord's advice pursuant to this Article 29.16F is to provide Tenant with current information).

29.17 Antenna Area

Tenant shall have the right to use the Antenna Area, as hereinafter defined, to install, maintain and use up to an aggregate of three satellite dishes antenna or other telecommunication devices (collectively, including associated wires and the like, referred to as "Antenna") for a period commencing as of the date that Tenant installs the Antenna in the Antenna Area ("Term Commencement Date in respect of the Antenna Area") and terminating as of termination of the term of the Lease of the Premises initially demised to Tenant. The "Antenna Area" shall be an area on the roof of the Building shown as "Antenna Area" on Exhibit 6 attached hereto. Tenant shall be permitted to use the Antenna Area solely for Antenna facilities installed in accordance with specifications approved by Landlord in advance (which approval shall not be unreasonably withheld, conditioned or delayed) utilizing a frequency or frequencies and transmission power identified in such approved specifications which Tenant will be installing in the Antenna Area and no other frequencies or transmission power shall be used by Tenant without Landlord's prior written consent. Such installation shall be designed in such manner as to be easily removable and so as not to damage the roof of the Building. The Antenna and any replacement shall be subject to Landlord's approval (which approval shall not be unreasonably withheld, conditioned or delayed). Tenant's use of the Antenna Area shall be upon all of the conditions of the Lease, except as follows:

A. Tenant shall have no obligation to pay Yearly Rent, Tax Share, or Operating Cost Share in respect of the Antenna Area.

B. Landlord shall have no obligation to provide any services to the Antenna facilities.

C. Tenant shall have no right to make any changes, alterations, signs, decoration, or other improvements (which changes, alterations, signs, decoration or other improvements, together with the Antenna, are

hereby collectively referred to as "Rooftop Installations") to the Antenna Area (other than installing the Antenna) without Landlord's prior written consent, which consent Landlord may hold it its sole discretion.

D. Tenant shall have no right of access to the roof of the Building unless Tenant has given Landlord reasonable advance notice and unless Tenant's representatives are accompanied by a representative of Landlord. Landlord shall provide Tenant with 24-hour access to the Antenna Area, subject to Landlord's reasonable security procedures and restrictions based on emergency conditions and to other causes beyond Landlord's reasonable control. Tenant shall give Landlord reasonable advance written notice of the need for access to the Antenna Area (except that such notice may be oral in an emergency), and Landlord must be present during any entry by Tenant onto the Antenna Area. Each notice for access shall be in the form of a work order referencing the lease and describing, as applicable, the date access is needed, the name of the contractor or other personnel requiring access, the name of the supervisor authorizing the access/work, the areas to which access is required, the Building common elements to be impacted (risers, electrical rooms, etc.) and the description of new equipment or other Rooftop Installations to be installed and evidence of Landlord's approval thereof. In the event of an emergency, such notice shall follow within five (5) days after access to the Antenna Area.

E. At the expiration or prior termination of Tenant's right to use the Antenna Area, Tenant shall remove all Rooftop Installations (including, without limitation, the Antenna) from the Antenna Area.

F. Tenant shall be responsible for the cost of repairing any damage to the roof of the Building caused by the installation or removal of any Rooftop Installations.

G. Tenant shall have no right to sublet the Antenna Area separate from a sublease of the Premises, or portion thereof, which is permitted pursuant to the provisions of this Lease.

H. No other person, firm or entity (including, without limitation, other tenants, licensees or occupants of the Building) shall have the right to benefit from the services provided by the Antenna other than Tenant and Tenant's permitted assignees and subtenants.

I. In the event that Landlord performs repairs to or replacement of the roof, Tenant shall, if and to the extent necessary for such repairs or replacements, at Tenant's cost, remove the Antenna until such time as Landlord has completed such repairs or replacements. Tenant recognizes that there may be an interference with Tenant's use of the Antenna in connection with such work. Landlord shall use reasonable efforts to complete such work as promptly as possible and to perform such work in a manner which will minimize or, if reasonably possible, eliminate any interruption in Tenant's use of the Antenna.

J. Any services required by Tenant in connection with Tenant's use of the Antenna Area or the Antenna shall be installed by Tenant, at Tenant's expense, subject to Landlord's prior approval, which approval shall not be unreasonably withheld, conditioned or delayed.

K. To the maximum extent permitted by law, all Rooftop Installations in the Antenna Area shall be at the sole risk of Tenant, and Landlord shall have no liability to Tenant in the event that any Rooftop Installations are damaged for any reason (except, subject to Article 19, to the extent arising from the negligence or willful misconduct of Landlord or Landlord's contractors (including subcontractors or agents).

L. Tenant shall take the Antenna Area "as-is" in the condition in which the Antenna Area is in as of the Term Commencement Date in respect of the Antenna Area.

M. Tenant shall comply with all applicable laws, ordinances and regulations in Tenant's use of the Antenna Area and the Antenna.

N. Landlord shall have the right, upon thirty (30) days notice to Tenant, to require Tenant to relocate the Antenna Area to another area ("Relocated Rooftop Area") on the roof of the Building suitable for the use of Rooftop Installations. In such event, Tenant shall, at Landlord's cost and expense, on or before the thirtieth (30th) day after Landlord gives such notice, relocate all of its Rooftop Installations from the Antenna Area to the Relocated Rooftop Area.

O. In addition to complying with the applicable construction provisions of the Lease, Tenant shall not install or operate Rooftop Installations in any portion of the Antenna Area until (x) Tenant shall have obtained Landlord's prior written approval, which approval will not be unreasonably withheld or delayed, of Tenant's plans and specifications for the placement and installation of the facilities, if any, connecting the Rooftop Installations in the Premises, and (y) Tenant shall have obtained and delivered to Landlord copies of all required governmental and quasi-governmental permits, approvals, licenses and authorizations necessary for the lawful installation, operation and maintenance of the Rooftop Installations. The parties hereby acknowledge and agree, by way of illustration and not limitation, that Landlord shall have the right to withhold its approval of Tenant's plans and specifications hereunder, and shall not be deemed to be unreasonable in doing so, if Tenant's intended placement or method of installation or operation of the Rooftop Installations (i) may subject other licensees, tenants or occupants of the Building, or other surrounding or neighboring landowners or their occupants, to signal interference, Tenant hereby acknowledging that a shield may be required in order to prevent such interference, (ii) does not minimize to the fullest extent practicable the obstruction of the views from the windows of the Building that are adjacent to the Rooftop Installations, if any, (iii) does not complement (in Landlord's sole judgment, which shall not, however, require Tenant to incur unreasonable expense) the design and finish of the Building, (iv) may damage the structural integrity of the Building or the roof thereof, or (v) may constitute a violation of any consent, approval, permit or authorization necessary for the lawful installation of the Rooftop Installations.

P. In addition to the indemnification provisions set forth in the Lease which shall be applicable to the Antenna Area, Tenant shall, to the maximum extent permitted by law, indemnify, defend, and hold Landlord, its agents, contractors and employees harmless from any and all claims, losses, demands, actions or causes of actions suffered by any person, firm, corporation, or other entity arising from Tenant's use of the Antenna Area, except, subject to Article 19, to the extent caused by the negligence or willful misconduct of Landlord or Landlord's contractors (including subcontractors) or agents.

Q. Landlord shall have the right to designate or identify the Rooftop Installations with or by a lease or license number (or other marking) and to place such number (or marking) on or near such Rooftop Installations.

29.18 Rooftop Mechanical Area

A. Without additional charge, except as set forth in this Article 29.18, Tenant, at its cost, shall be permitted to install, maintain and use heating, cooling and ventilating equipment ("HVAC Equipment") on the roof of the Building in the location shown on Exhibit 6. Tenant shall not install the HVAC Equipment without obtaining Landlord's prior written approval, which approval shall not be unreasonably withheld. If at any time Landlord, in its sole 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 HVAC Equipment (the "Screening"). The HVAC Equipment, its appurtenances and Screening, if any, shall be installed in accordance with the terms of this Lease (including, without limitation, Articles 12 and 13 hereof) and Landlord's approval of the precise location of the HVAC Equipment (if not installed in the location shown on Exhibit 6) on the roof of the Building (such area on the roof, as shown on Exhibit 6 or as otherwise approved by Landlord, being referred to herein as the "Rooftop Mechanical Area"), the manner in which the HVAC Equipment is lifted to, and installed on, the roof of the Building, and the manner in which the HVAC Equipment is connected to the Premises (which approval shall not be unreasonably withheld, conditioned or delayed).

B. Landlord agrees that Tenant, upon reasonable prior written notice to Landlord, shall have access to the roof of the Building and the Rooftop Mechanical Area for the purpose of installing, maintaining, repairing and removing the HVAC Equipment, the appurtenances and the Screening, if any, all of which shall be performed by Tenant or Tenant's authorized representative or contractors, which shall be approved by Landlord, at Tenant's sole cost and risk. It is agreed, however, that only authorized engineers, employees or properly authorized contractors of Tenant, or persons under their direct supervision, will be permitted to have access to the roof of the Building and the Rooftop Mechanical Area. Tenant further agrees to exercise firm control over the people requiring access to the roof of the Building and the Rooftop Mechanical Area in order to keep to a minimum the number of people having access to the roof of the Building and the Rooftop Mechanical Area and the frequency of their visits.

C. Tenant shall be responsible for the cost of all electricity consumed in connection with the operation of the HVAC Equipment and for the cost of installing a submeter, if required by Landlord, to measure such electrical consumption. Tenant, at its sole cost and expense, shall procure and maintain in full force and effect,

a contract (the "Service Contract") for the service, maintenance, repair and replacement of the HVAC Equipment with a HVAC service and maintenance contracting firm reasonably acceptable to Landlord. Tenant shall follow all reasonable recommendations of said contractor for the maintenance, repair and replacement of the HVAC Equipment. The Service Contract shall provide that the contractor shall perform inspections of the HVAC Equipment at intervals of not less than three (3) months and that having made such inspections, said contractor shall furnish a complete report of any defective conditions found to be existing with respect to the HVAC Equipment, together with any recommendations for maintenance, repair and/or replacement thereof. Said report shall be furnished to Tenant with a copy to Landlord.

D. The installation, maintenance, operation and removal of the HVAC Equipment, the appurtenances and the Screening, if any, is not permitted to damage the Building or the roof thereof, or interfere with the use of the Building and roof by Landlord. Tenant agrees to be responsible for any damage caused to the roof or any other part of the Building, which may be caused by Tenant or any of its agents or representatives. Tenant agrees to maintain all of the Tenant's HVAC Equipment placed on or about the roof or in any other part of the Building in proper operating condition and maintain same in satisfactory condition as to appearance and safety, as reasonably determined by Landlord. Such maintenance and operation shall be performed in a manner to avoid any interference with Landlord. Tenant agrees that at all times during the Term, it will keep the roof of the Building and the Rooftop Mechanical Area free of all trash or waste materials produced by Tenant or any Tenant Entities or contractors.

E. The HVAC Equipment, appurtenances, and Screening, if any, shall remain the property of Tenant until the expiration or earlier termination of this Lease, at which time they shall become the property of Landlord; provided, however, that Landlord may, at Landlord's option, which option shall be exercised by Landlord at the time that Landlord approves Tenant's plans therefor, require the Tenant, at Tenant's expense, to remove the HVAC Equipment, appurtenances and/or Screening at the expiration or sooner termination of the term of this Lease and restore the affected area(s) to the condition they were in prior to installation of such items, ordinary wear and tear excepted, including, without limitation, the patching of any holes in the roof membrane to match, as closely as possible, the color surrounding the area where the HVAC Equipment, appurtenances and Screening were attached. Landlord agrees to make such election at the time that Landlord approves Tenant's plans for such installations, etc., if Tenant requests in writing that Landlord make such election at the time that Tenant requests Landlord's approval of such installations, etc. If Tenant fails to remove such items and/or perform such restoration work required pursuant to this Article 29.18E, Landlord shall be entitled to do so, at Tenant's cost.

F. Tenant must provide Landlord with prior written notice of any installation, removal or repair on the roof of the Building and coordinate such work with Landlord in order to avoid voiding or otherwise adversely affecting any warranties granted to Landlord with respect to the roof. If necessary, Tenant, at its sole reasonable cost and expense, shall retain any contractor having a then existing warranty in effect on the roof to perform such work (to the extent that it involves the roof), or, at Tenant's option, to perform such work in conjunction with Tenant's contractor. If Landlord contemplates roof repairs that could affect Tenant's HVAC Equipment, Landlord shall formally notify Tenant at least thirty (30) days in advance (except in cases of an emergency) prior to the commencement of such contemplated work in order to allow Tenant to make other arrangements for such service.

G. Tenant specifically acknowledges and agrees that the terms and conditions of Article 16 of this Lease shall apply with full force and effect to the Rooftop Mechanical Area.

29.19 Parking. As of the Execution Date of the Lease, the Landlord will make available to Tenant eighty-two (82) monthly parking passes for use in the One Kendall Square Garage ("OKS Garage"). Tenant shall have no right to sublet, assign, or otherwise transfer said parking passes except in connection with a permitted assignment of this Lease or a permitted sublease of the Premises or a portion thereof. The rate for such passes during the term of the Lease to be paid for by Tenant shall be based upon market rates then charged in the Garage and in similar garages in the East Cambridge/Kendall Square market, as such rate may vary from time to time. The current rate for such passes as of the Execution Date is $225.00 per month. If, for any reason, Tenant shall fail timely to pay the charge for said parking passes, within ten (10) days after notice from Landlord, Tenant shall have no further right to such parking passes under this Article 29.19. In addition, during any time period when Tenant is in default beyond the expiration of any applicable notice and grace periods of its obligations under the Lease, Landlord shall have the right to withdraw Tenant's use of said parking passes. Said parking passes will be on an unassigned, non-reserved basis, and shall be subject to reasonable rules and regulations from time to time in force. If, as and when the Premises are expanded pursuant to the terms of this Lease, Landlord shall make available to Tenant one (1)

additional parking pass for each 1,000 rentable square feet of such expansion space. Accordingly, the number of available parking passes shall increase by nine (9) as of the Expansion Space I Commencement Date; by three (3) as of the Expansion Space II Commencement Date and by ten (10) as of the Expansion Space III Commencement Date.

29.20 Right of First Refusal. Subject only to the Superior Rights of NinePoint Medical Inc., provided this Lease is in full force and effect and Tenant is not in default hereunder, beyond any applicable notice and cure periods, if at any time during the Term of this Lease, Landlord shall receive a bona fide offer (the "Offer") from any third party to lease any of the space on the fifth (5th) floor in Building 600/650/700 that is vacant as of the Execution Date of this Lease, as such spaces are more particularly shown hatched on the plan attached hereto as Exhibit 9 (each such space may be referred to individually or collectively as the "ROFR Space"), and which Offer Landlord is prepared to accept, Landlord shall notify Tenant (the "Right of First Refusal Notice") of Landlord's intent to accept such Offer. The Right of First Refusal Notice shall include the terms of the Offer. Tenant shall have the right (the "Right of First Refusal"), exercisable by Tenant, within five (5) business days of Tenant's receipt of the Right of First Refusal Notice, to decline such Offer or accept the terms of the Offer, in writing, and within five (5) business days thereafter Landlord and Tenant shall enter into a supplemental agreement to the Lease pursuant to which Tenant shall lease the space which is the subject of the Offer under the terms and conditions specified in the Offer and this Lease. If the Offer includes space in addition to the ROFR Space then Tenant must elect to lease the entirety of the space in the Offer (including the ROFR Space) if Tenant exercises it rights to lease under this Section 29.20. Should Tenant decline the Offer or fail to accept the Offer in writing within five (5) business days of receipt of the Right of First Refusal Notice, then Landlord shall be free to lease such space to the offering third party upon the terms set forth in the Right of First Refusal Notice, and the Right of First Refusal under this Section 29.20 shall become null and void as to the particular space offered and within ten (10) days of Landlord's request therefor, Tenant shall execute a certificate confirming its election to decline to lease such ROFR Space; provided however, that if Landlord has not executed a lease for such space in accordance with the terms third-party Offer within six (6) months following the date on which Landlord's Right of First Refusal Notice is delivered to Tenant, then the terms of this Right of First Refusal shall revive and Landlord shall be required to again offer the ROFR Space to Tenant in accordance with the terms hereof prior to leasing same. If Tenant accepts the Offer, then Landlord shall lease the ROFR Space, to Tenant in accordance with the terms of the Offer. The foregoing Right of First Refusal is personal to and may only be exercised by Merrimack Pharmaceuticals, Inc., and/or any Permitted tenant Successor (as defined in Article 16 of this Lease) while occupying at least sixty-five percent (65%) of the Total Rentable Area of the Premises then demised to Tenant. No Right of First Refusal Notice shall contain terms or conditions which, due to their exclusive or particular application to the identity or business practice of the proposed lessee (as opposed to financial terms of general applicability) would by their inclusion in the proposed transaction render it impossible or commercially impracticable for Tenant to exercise its right to lease the ROFR Space on the terms set forth in such Right of First Refusal Notice. To the extent any such terms or conditions are contained in any Right of First Refusal Notice, Tenant shall have the right to provide Landlord with written notice of its objection to such terms and conditions, and shall thereafter (absent a good faith dispute by Landlord which may be submitted to arbitration in accordance with the provisions of Article 29.4) be entitled to exercise its rights of acceptance under this Section without regard to such terms or conditions, in which event they shall be deemed deleted from and inapplicable to the Right of First Refusal Notice accepted by Tenant.

29.21 Complex Fitness Center. Landlord acknowledges that it is undertaking to construct an approximately 3,000 square feet fitness center, with locker and shower facilities, on the first (1st) floor of Building 500 in the Complex which may be used by Complex tenants subject to applicable fees and rules and regulations to be developed by Landlord. Landlord shall complete construction of the aforesaid fitness center on or before January 1, 2013.

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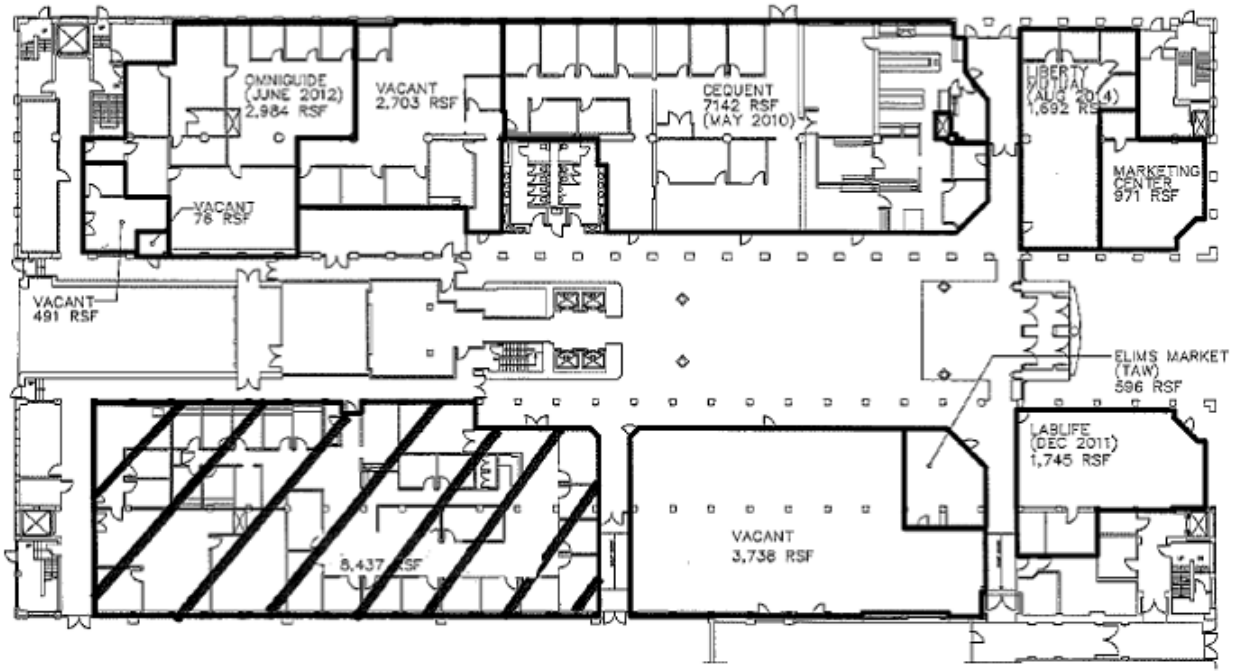
LANDLORD:	TENANT:
RB KENDALL FEE, LLC	MERRIMACK PHARMACEUTICALS, INC.
By: /s/ Robert L. Beal	By: /s/ William Sullivan
Robert L. Beal, its authorized signatory	Name: William Sullivan
	Title: CFO
	Hereunto duly authorized

Exhibit 2
Lease Plan (Existing Lab/Office Premises)

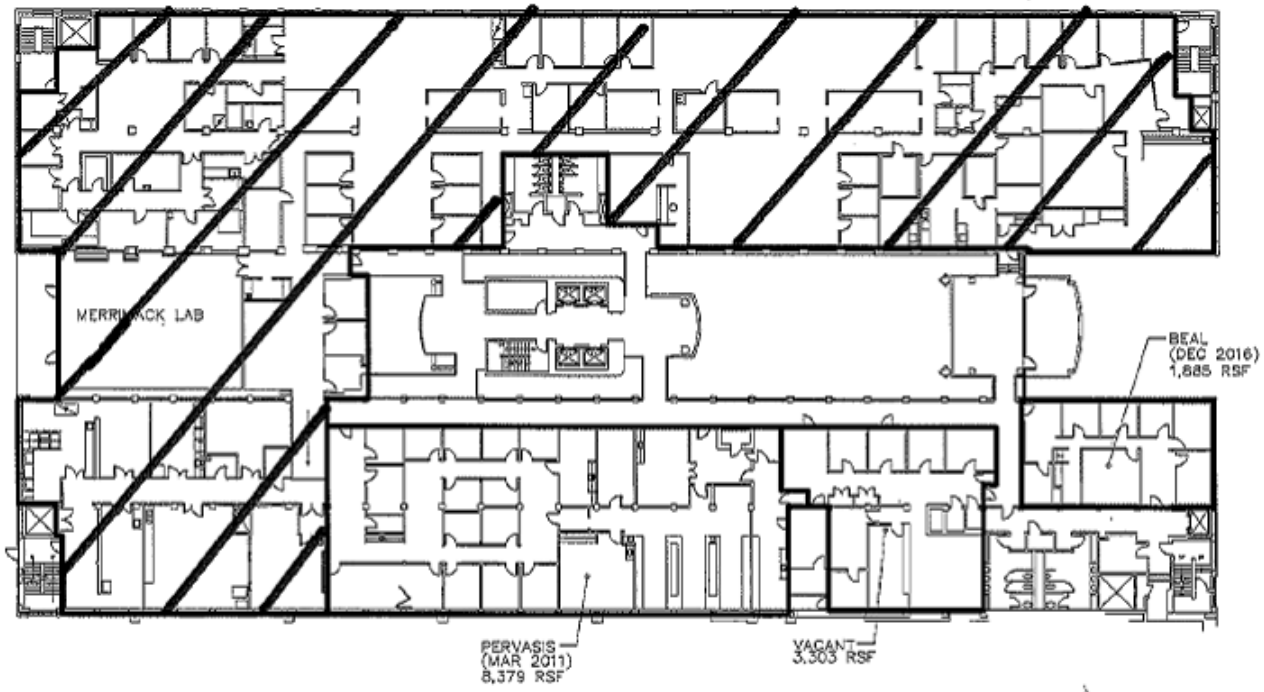


ONE KENDALL SQUARE – BUILDING 600, 650, 700 – 1ST FLOOR

ONE KENDALL SQUARE

(8,437 RSF)

1ST FLOOR SPACE

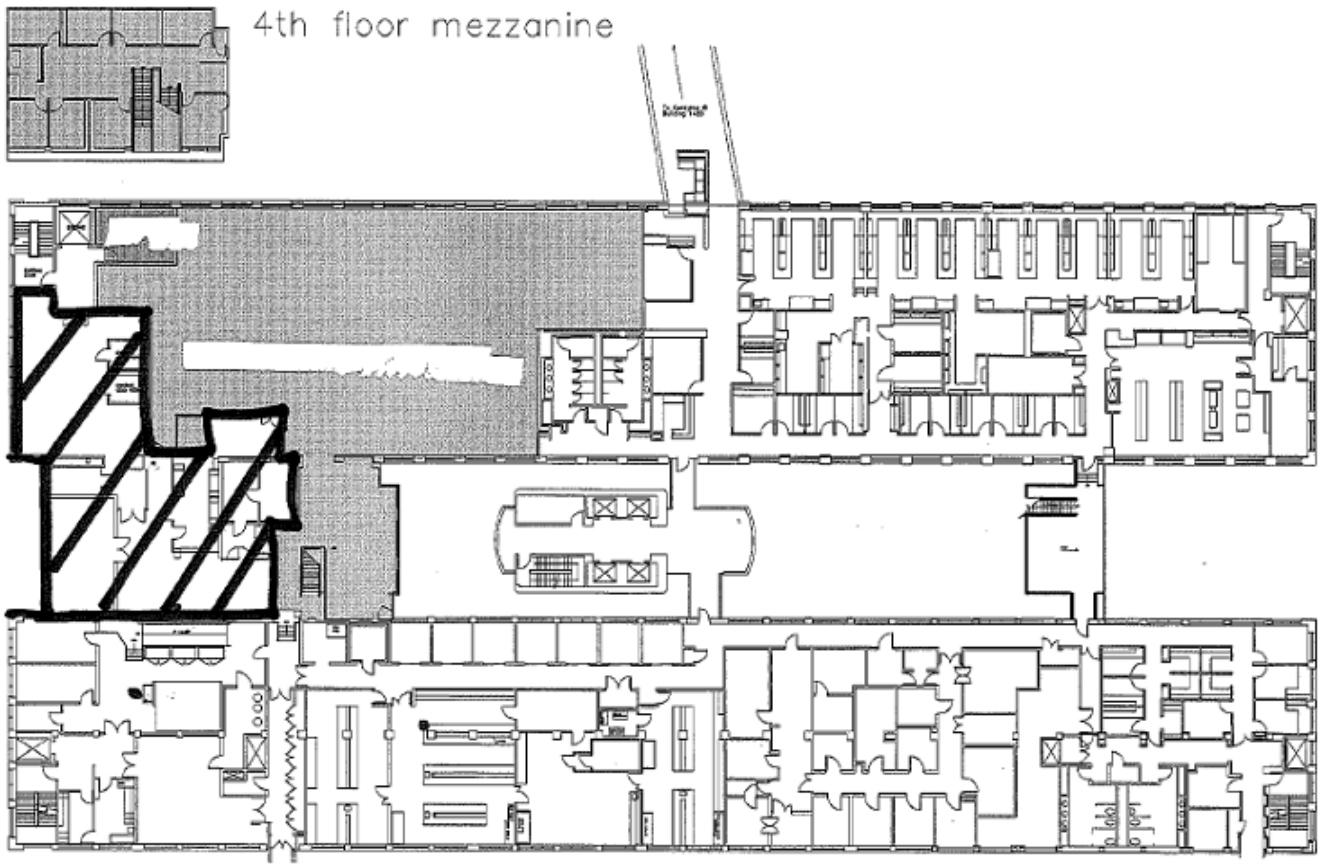


ONE KENDALL SQUARE – BUILDING 600, 650, 700 – 2ND FLOOR

(31,747 RSF)

ONE KENDALL SQUARE

2ND FLOOR SPACE



PROPOSED PREMISES

B700 ONE KENDALL SQUARE THE BEAL COMPANIES HARRISON MULHERN ARCHITECTS MAY 16, 2012

B650 4TH FLOOR 4,773 RSF

ADDITIONAL SPACE

ONE KENDALL SQUARE – BUILDING 700 – 4TH FLOOR

MEZZANINE SPACE · MEZZ (9,245 RSF)

ONE KENDALL SQUARE

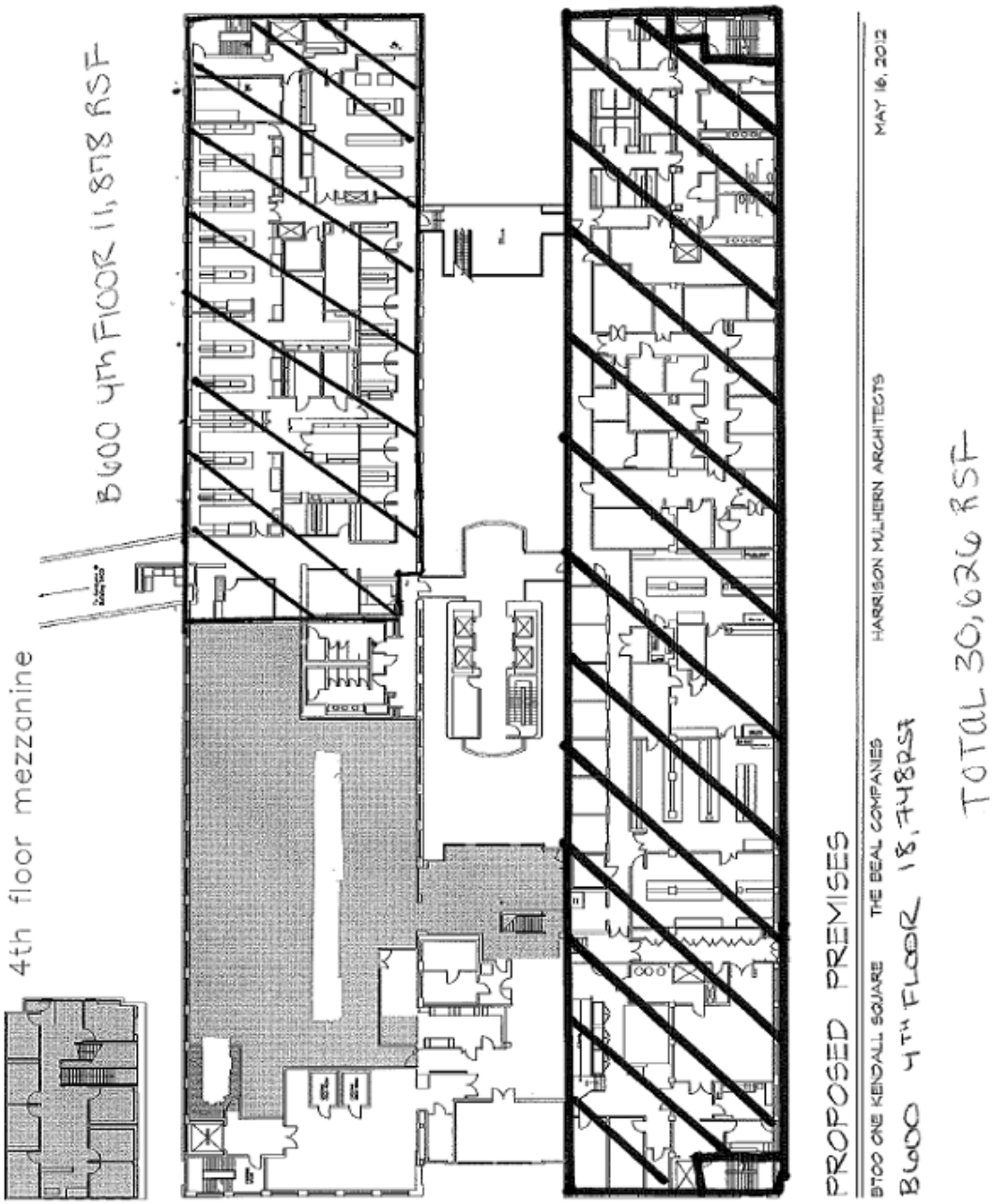


Exhibit 2A
Lease Plan (Basement Premises)

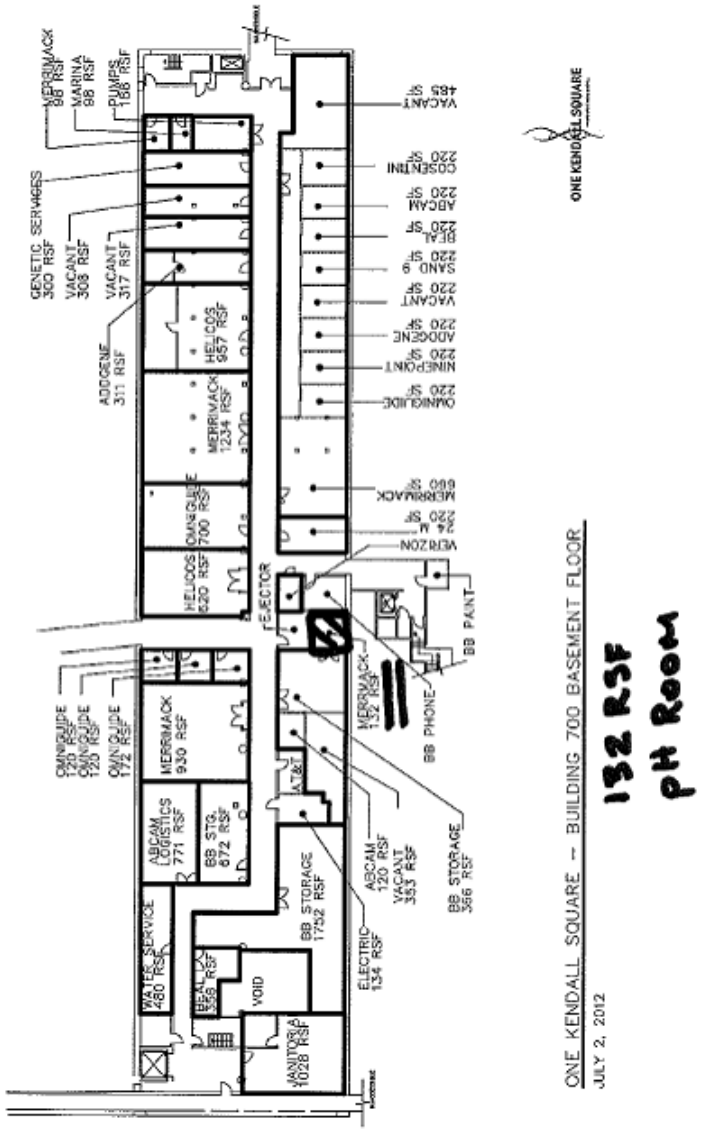


Exhibit 2B
Lease Plan (Storage Space)

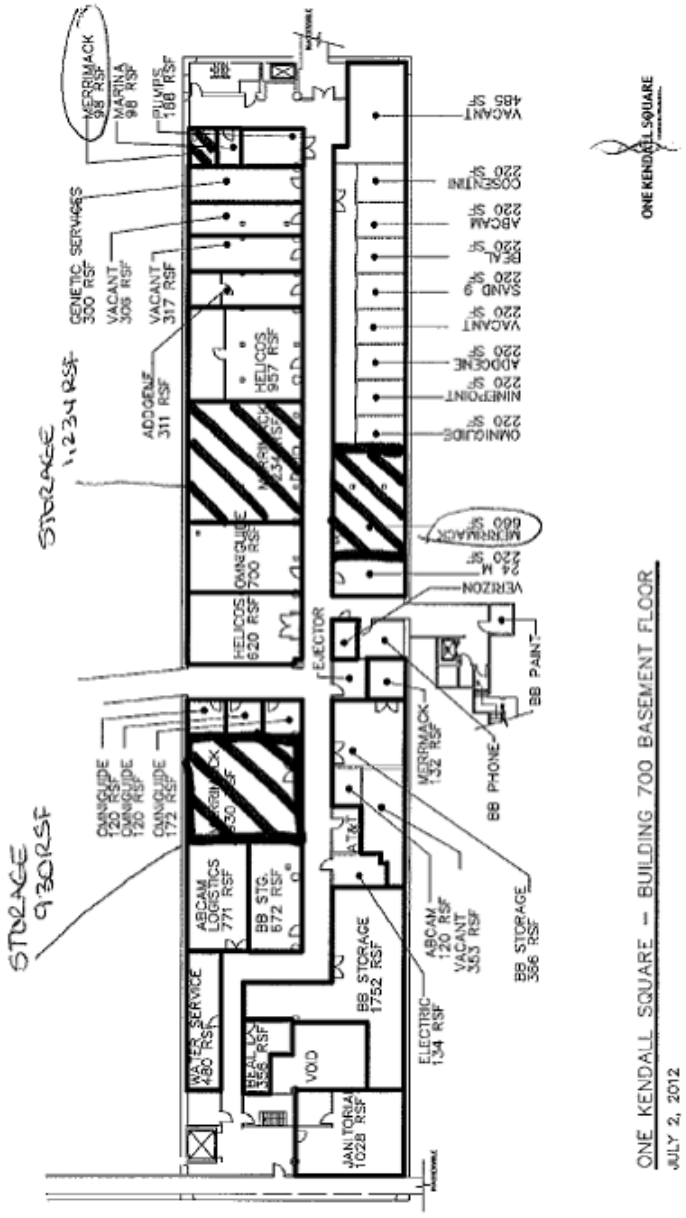
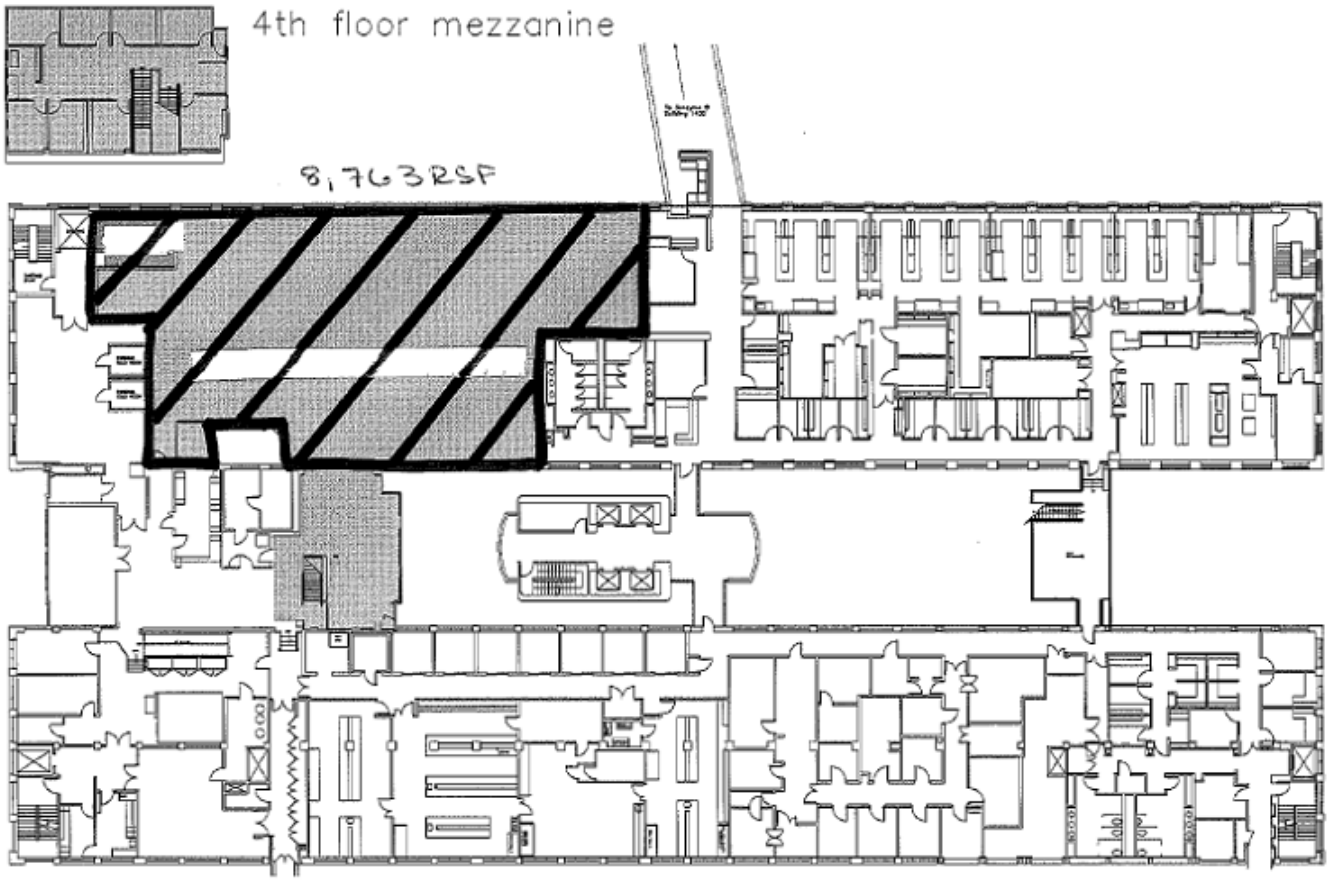
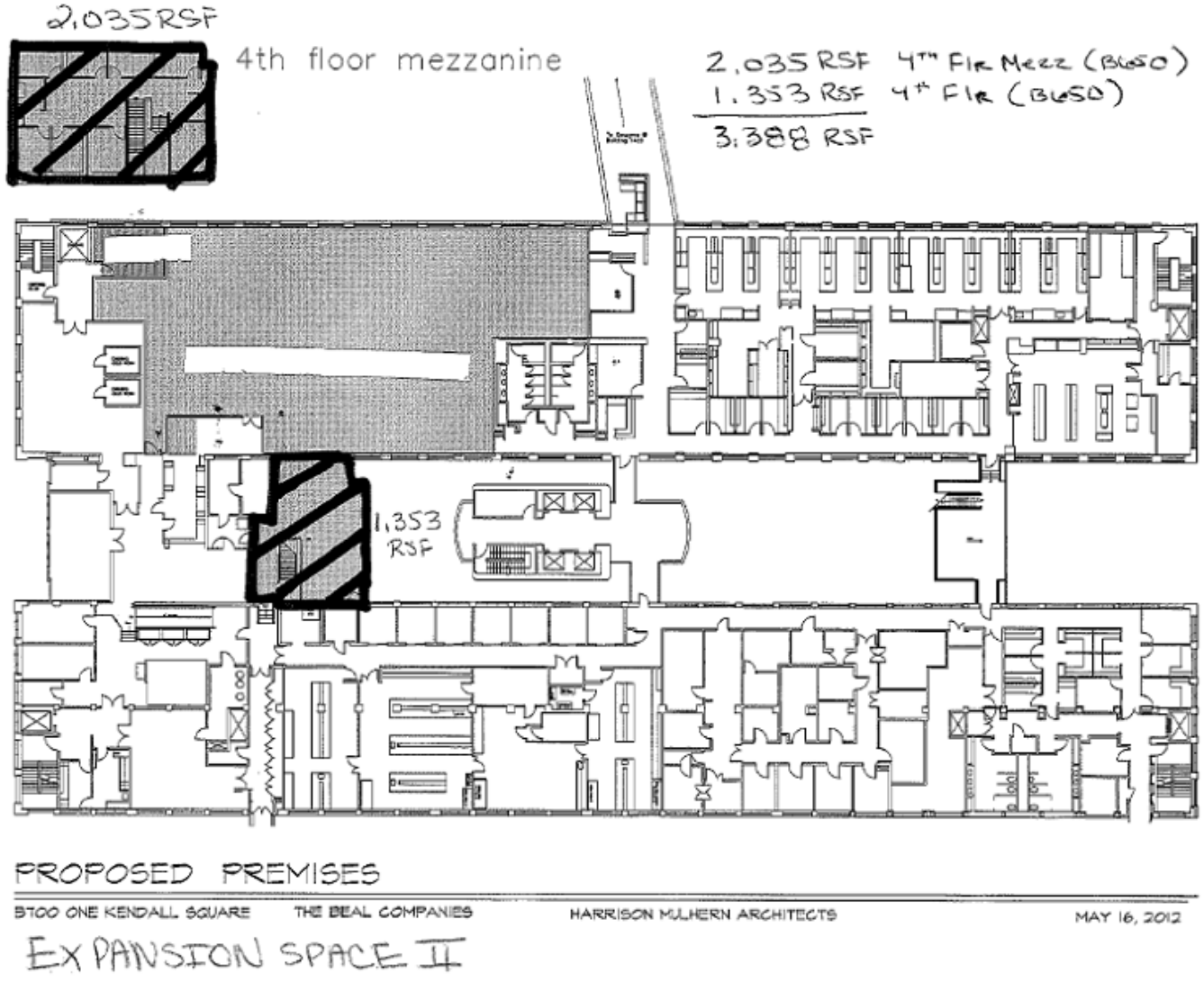


Exhibit 2C
Lease Plan (Expansion Space)


4th floor mezzanine
8,763RSF
PROPOSED PREMISES
B700 ONE KENDALL SQUARE
THE BEAL COMPANIES
HARRISON MULHERN ARCHITECTS
MAY 16, 2012
EXPANSION SPACE I


2,035 RSF
4th floor mezzanine
2,035 RSF 4TH FLR MEZZ (B650)
1,353 RSF 4TH FLR (B650)
3,388 RSF
1,353 RSF
PROPOSED PREMISES
B700 ONE KENDALL SQUARE
THE BEAL COMPANIES
HARRISON MULHERN ARCHITECTS
MAY 16, 2012
EXPANSION SPACE II

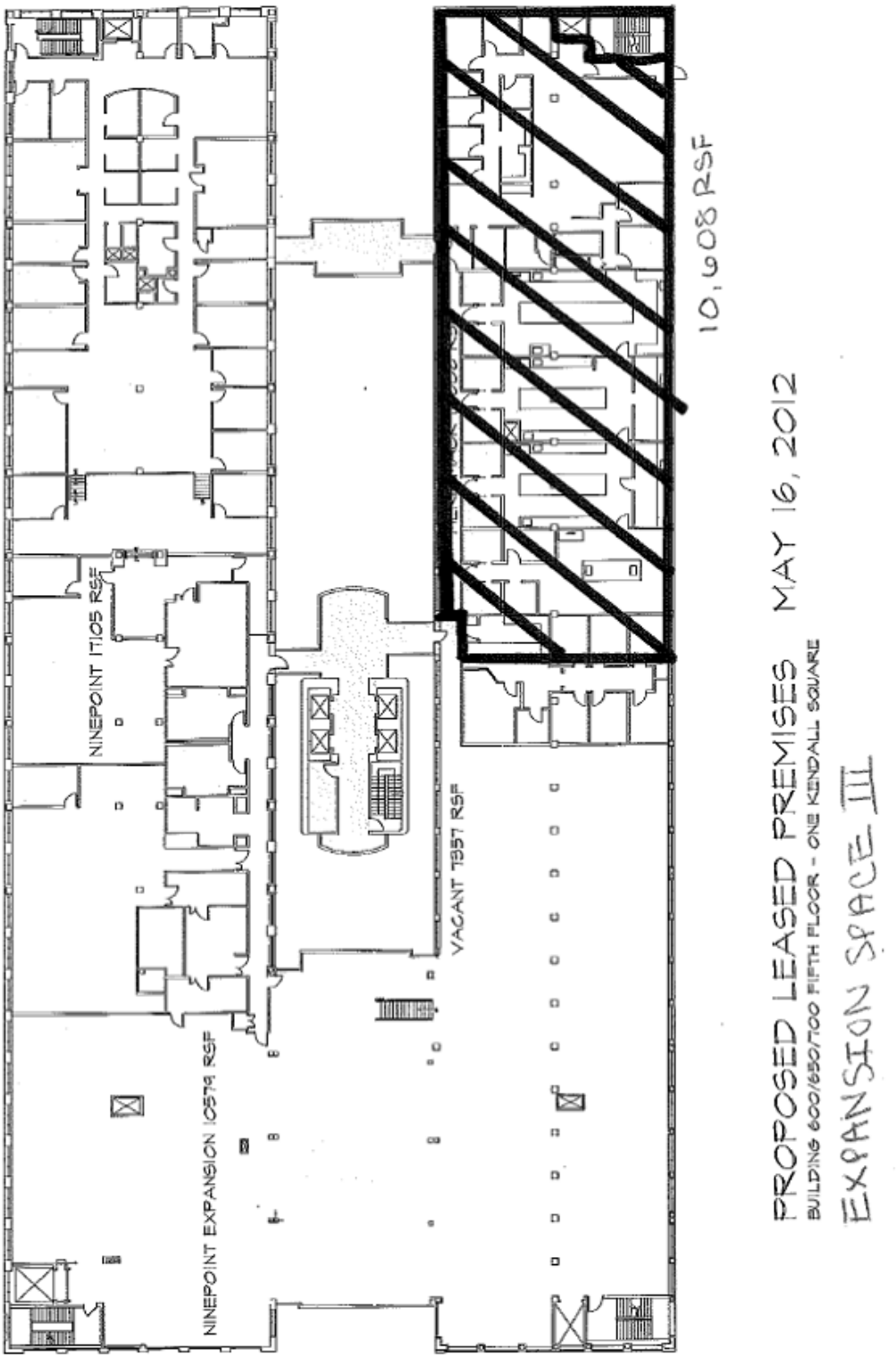


Exhibit 2D
Lease Plan (Chemical Storage Space)

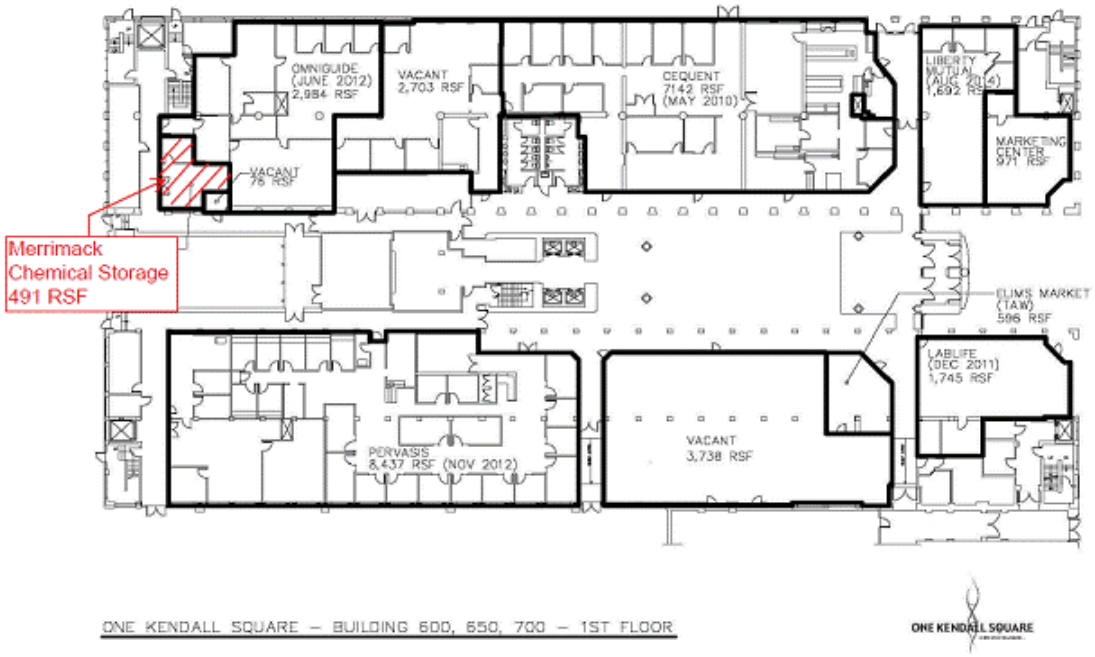


Exhibit 3
Plan of Complex

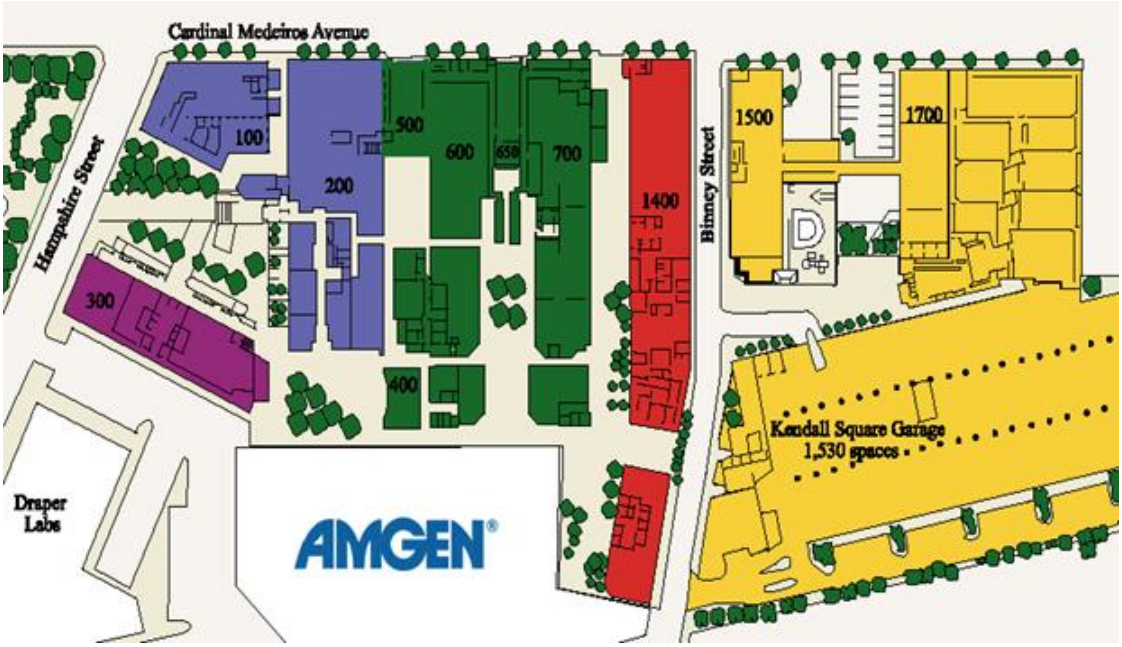


Exhibit 4
Landlord's Work

MERRIMACK EXPANSION BUILDING 600 650 700 4th Floor (8,763 rsf) 5th Floor (10,608 rsf) Mezzanine (3,388 rsf)			
DESCRIPTION:	*RESPONSIBILITY ALLOCATION*		
	LANDLORD	*TENANT*	
HEATING, VENTILATION, AIR CONDITIONING:			
Temperature control is provided by Heat Pumps fed with a tempered glycol loop. The glycol loop is tempered by two Base Building hot water boilers and cooling towers	X		PHASE 1
Glycol loop pipe risers and floor mains in Tenant Premises	X		PHASE 1
Glycol loop pipe distribution tie-ins within Tenant Premises		X	
Purchase of Heat Pump units within Tenant Premises. (Quantity based upon 1 ton per 400 rsf)	X		PHASE 2
Installation and Distribution of Heat Pump units supplied by Landlord within Tenant Premises.		X	
Boilers and/or Electric Reheat coils within Tenant Premises		X	
Building Management System (BMS) for common areas and Landlord infrastructure, which includes Heat Pumps and Condensor Water Loop that support common areas	X		PHASE 1
BMS (compatible with Landlord's system) within Tenant Premises and Tenant Infrastructure, which includes but is not limited to Dedicated MUA Unit, Dedicated Boiler, hot water/chilled water pumps, Server Room HVAC, etc.)		X	
Purchase and Drop of MUA Package Unit located on the roof. Provide Gas and Electrical Service and Connection to the Unit. Unit will provide up to 1.5 CFM per SF of 100% outdoor air to the lab portion of the Tenant's Premises. Lab portion of the premises is anticipated to be 50%	X		PHASE 3
Supply air duct distribution system including but not limited to: VAV boxes, equipment connections, insulation, air terminals, dampers, hangers, etc. within Tenant Premises		X	
Laboratory exhaust fans located on roof		X	
Vertical exhaust air duct risers located in shaft		X	
Exhaust air duct distribution, equipment connections, insulation, dampers, hangers, etc. within Tenant Premises		X	
Ventilation system for Base Building electrical closets	X		PHASE 1
Ventilation system for electrical closets within Tenant Premises		X	
Sound attenuation for MUA Unit on roof to comply with Cambridge Noise Ordinance as needed	X		PHASE 3
Sound attenuation for Tenant equipment to comply with Cambridge Noise Ordinance as needed		X	
Tenant Server Room HVAC (if needed)		X	
PLUMBING			
Domestic water service with backflow prevention and Base Building risers	X		PHASE 1
Domestic water distribution within Tenant Premises		X	
Tenant Metering and sub-metering at Tenant connection		X	
Sanitary waste and vent service risers	X		PHASE 1
Non-potable Hot water generation for Tenant Use		X	
Lab air compressor system for Tenant Use		X	

MERRIMACK EXPANSION BUILDING 600 650 700 4th Floor (8,763 rsf) 5th Floor (10,608 rsf) Mezzanine (3,388 rsf)			
DESCRIPTION:	***RESPONSIBILITY ALLOCATION***		
Compressed air pipe distribution in Tenant Premises for specific points of use		X	
Lab vacuum system for Tenant Use		X	
Lab vacuum pipe distribution in Tenant Premises for specific points of use		X	
Tepid water generator		X	
Tepid water pipe distribution in Tenant Premises		X	
RODI water generator		X	
RODI water pipe distribution in Tenant Premises for specific points of use		X	
Manifolds, piping, and other requirements including cylinders, not specifically mentioned above		X	
ELECTRICAL:			
Electrical utility service to switchgear in basement electrical room	X		PHASE 1
600 amp bus tap, 480v 3-phase for Tenant Premises and all associated equipment	X		PHASE 1
Allocation of bus power for Tenant use (w/sf): 15 watts/sf	X		PHASE 1
Sound attenuation for One generator to comply with Cambridge Noise Ordinance	X		PHASE 1
Installation of landlord supplied Automatic transfer switch for one 250 KW E-Gen for Tenant load		X	PHASE 1 (Landlord will supply)
Standby power distribution within Tenant Premises		X	
Lighting and power distribution for Tenant Premises		X	
Meter socket for Tenant bus tie-in	X		PHASE 1
Meter of 600 amp bus tap with 600 amp CT's.	X		PHASE 1
Common area life safety emergency lighting/signage	X		PHASE 1
Tenant Premises life safety emergency lighting/signage		X	
Tenant panels and transformers		X	
All distribution/tie-in's from generators to tenant premises		X	
NATURAL GAS:			
Natural gas service to Building (Added Quantity 2,000,000 MBH)	X		PHASE 1
Natural gas service to Premises and to Tenant Generator		X	
Natural Gas service and pressure regulator for Tenant equipment		X	
Natural gas piping from Tenant meter to Tenant Premises or Tenant Equipment areas		X	
Installation of NSTAR supplied meter for Tenant Premises	X		PHASE 2
Natural gas pipe distribution within Tenant Premises		X	
Natural gas pressure regulator vent pipe riser from valve location through roof as needed		X	
FIRE PROTECTION:			
Fire Service entrance including fire department connection, alarm valve, and flow protection	X		PHASE 1
Primary distribution and sprinkler heads adequate to support ordinary hazard (with upturned heads)	X		PHASE 1
All run outs, drop heads, and related equipment within Tenant Premises		X	
Modification of sprinkler piping and head locations to suite Tenant layout and hazard index		X	
Fire extinguisher cabinets at common areas	X		PHASE 1
Fire extinguisher cabinets in Tenant Premises		X	
Base Building fire alarm system with devices in common areas	X		PHASE 1

MERRIMACK EXPANSION BUILDING 600 650 700 4th Floor (8,763 rsf) 5th Floor (10,608 rsf) Mezzanine (3,388 rsf)			
DESCRIPTION:	*RESPONSIBILITY ALLOCATION*		
Fire alarm sub panels and devices for Tenant Premises with integration into Base Building system		X	
Alteration to fire alarm system to facilitate Tenant program, subject to Landlord review and approval		X	
Fire proofing of the structural steel and corrogated metal flooring above Expansion Premises' as required by code	X		PHASE 1
COMMON AREAS:			
Accessible Main Entrance	X		PHASE 1
First Floor renovated Lobby	X		PHASE 1
Upper level elevator lobbies on floors with multiple Tenants	X		PHASE 1
Common Area restrooms	X		PHASE 1
Janitors closets in common areas	X		PHASE 1
Electrical closets in common areas	X		PHASE 1
IDF connected to secondary demarcation room	X		PHASE 1
Primary demarcation room	X		PHASE 1
Loading Dock area	X		PHASE 1
Doors, frames, and hardware at common areas	X		PHASE 1
Five (5) hydraulic passenger elevators with 2,500 lb. capacity	X		PHASE 1
Two (2) hydraulic freight elevator with 4,000 lb. capacity	X		PHASE 1
TENANT AREAS:			
Demising costs - including demising walls, power and other utility separation and the creation of any building common areas or corridors	X		PHASE 1- ALL DEMISING/SEPERATION PHASE 4- FINISHES OF COMMON AREA/CORRIDOR
Repair / replace any failed glass/broken windows in Expansion Space I, II, III, except for the three (3) large make up air vents that shall remain in place in Expansion Space I.	X		PHASE 3
Demolition and removal of existing improvements and obsolete components including HVAC equipment, ducting and piping in Expansion Spaces I, II, and III and specifically including the cinder block walls of former acid neutralization room in Expansion Space I.	X		PHASE 1
Demolition and removal of all unused and/or obsolete components located in existing vertical shafts that serve the Expansion Premises	X		PHASE 1
Floor repairs / leveling where needed	X		PHASE 1
Inside face of exterior walls - slab-to-slab insulation and sheetrock, window sills		X	
Finishes at inside face of exterior walls		X	
Electrical closets within Tenant Premises		X	
Tel/data rooms for interconnection with Tenant tel/data		X	
Tenant Kitchen areas		X	
Partitions, ceilings, flooring, painting, finishes, doors, frames, hardware, millwork, casework, etc.		X	
Fixed or moveable casework		X	
Laboratory Equipment including but not limited to biosafety cabinets, autoclaves, glass washers		X	
Chemical Fume Hoods		X	
Shaft enclosures for Base Building systems' risers	X		PHASE 1
Shaft enclosures for Tenant risers		X	
Furnish and install Building standard blinds for all windows	X		PHASE 4
Interior Window Treatments		X	
TELEPHONE / DATA:			

MERRIMACK EXPANSION BUILDING 600 650 700 4th Floor (8,763 rsf) 5th Floor (10,608 rsf) Mezzanine (3,388 rsf)			
DESCRIPTION:	***RESPONSIBILITY ALLOCATION***		
Underground local exchange carrier service to primary demarcation room in basement	X		PHASE 1
Service from primary demarcation room to secondary demarcation room	X		PHASE 1
Intermediate distribution frame rooms in Tenant Premises		X	
Pathways from secondary demarcation room to intermediate distribution frame rooms, where applicable		X	
Tenant tel/data rooms		X	
Pathways from secondary demarcation room directly into Tenant tel/data rooms		X	
Tel/data cabling from secondary demarcation room to intermediate distribution frame rooms		X	
Tel/data cabling from secondary demarcation room to Tenant tel/data rooms		X	
Fiber optic service for Tenant use		X	
Tel/data infrastructure including but not limited to servers, computers, phone systems, switches, routers, MUX panels, equipment racks, ladder racks, etc.		X	
Provisioning of circuits and service from service providers		X	
Audio visual systems and support		X	
Station cabling from Tenant tel/data room to all Tenant locations, within the suite and exterior to the suite, if needed		X	
STRUCTURE:			
Concrete column & beam slab construction with live load capacity of 100-125 lb/psi	X		PHASE 1
Structural enhancements for specific tenant load requirements subject to Landlord review and approval		X	
Floor to floor heights ranging from 14' 9" to 15'	X		PHASE 1
Utility risers for Tenant utilities, subject to Landlord review and approval		X	
ROOFING & EXTERIOR:			
EDPM Rubber Roofing System	X		PHASE 1
Roof penetrations for Base Building equipment/systems	X		PHASE 1
Roof penetrations for Tenant equipment/systems		X	
Walkway pads for Base Building equipment	X		PHASE 1
Walkway pads for Tenant equipment		X	
Roofing alterations due to Tenant changes subject to Landlord review and approval		X	
Building exterior consisting of concrete and glass exterior	X		PHASE 1
Aluminum frames and insulated windows	X		PHASE 1
Main Building entrances	X		PHASE 1
Loading Dock double doors	X		PHASE 1
SECURITY:			
Card access at Building entries	X		PHASE 1
Tenant card access into or within Tenant Premises on separate Tenant installed and managed system		X	
Tenant video camera coverage of Tenant Premises on separate Tenant installed and managed system		X	
24/7 roving security at complex located in the Building 200 Lobby	X		PHASE 1
SITE WORK:			
Perimeter sidewalks, street curbs, miscellaneous site furnishings, landscaping and parking	X		PHASE 1
Telephone service to main demarcation room from local exchange carrier	X		PHASE 1

MERRIMACK EXPANSION BUILDING 600 650 700 4th Floor (8,763 rsf) 5th Floor (10,608 rsf) Mezzanine (3,388 rsf)			
DESCRIPTION:	RESPONSIBILITY ALLOCATION		
Domestic sanitary sewer connection to street	X		PHASE 1
Roof storm drainage	X		PHASE 1
NStar primary and secondary electrical service	X		PHASE 1
NStar gas service	X		PHASE 1
Domestic water service to Building	X		PHASE 1
Fire Protection water service to Building	X		PHASE 1

Exhibit 5
Form of Letter of Credit

IRREVOCABLE STANDBY LETTER OF CREDIT NO.

DATE:

BENEFICIARY*:*
RB KENDALL FEE, LLC
c/o Beal and Company, Inc.
177 Milk Street
Boston, MA 02109
AS “LANDLORD”

APPLICANT:

Building
One Kendall Square, MA 02139
AS “TENANT”

AMOUNT: US $ (AND 00/100 U.S. DOLLARS)

EXPIRATION DATE:

LOCATION: AT OUR COUNTERS IN BOSTON, MASSACHUSETTS

DEAR SIR/MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. IN YOUR FAVOR AVAILABLE BY YOUR DRAFT DRAWN ON US AT SIGHT IN THE FORM OF EXHIBIT "B" ATTACHED AND ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

1. THE ORIGINAL OF THIS LETTER OF CREDIT AND ALL AMENDMENT(S), IF ANY.
2. A DATED CERTIFICATION FROM THE BENEFICIARY SIGNED BY AN AUTHORIZED OFFICER OR AGENT, FOLLOWED BY ITS DESIGNATED TITLE, STATING THE FOLLOWING:

(A) "THE AMOUNT REPRESENTS FUNDS DUE AND OWING TO US FROM APPLICANT PURSUANT TO THAT CERTAIN LEASE BY AND BETWEEN BENEFICIARY, AS LANDLORD, AND APPLICANT, AS TENANT."

OR

(B) "WE HEREBY CERTIFY THAT WE HAVE RECEIVED NOTICE FROM BANK THAT LETTER OF CREDIT NO. WILL NOT BE RENEWED, AND THAT WE HAVE NOT RECEIVED A REPLACEMENT OF THIS LETTER OF CREDIT FROM APPLICANT SATISFACTORY TO US AT LEAST THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE OF THIS LETTER OF CREDIT."

THE LEASE AGREEMENT MENTIONED ABOVE IS FOR IDENTIFICATION PURPOSES ONLY AND IT IS NOT INTENDED THAT SAID LEASE AGREEMENT BE INCORPORATED HEREIN OR FORM PART OF THIS LETTER OF CREDIT.

OUR OBLIGATION UNDER THIS CREDIT SHALL NOT BE AFFECTED BY ANY CIRCUMSTANCES, CLAIM OR DEFENSE, REAL OR PERSONAL, OF ANY PARTY AS TO THE ENFORCEABILITY OF THE LEASE BETWEEN YOU AND TENANT, IT BEING UNDERSTOOD THAT OUR OBLIGATION SHALL BE THAT OF A PRIMARY OBLIGOR AND NOT THAT OF A SURETY, GUARANTOR OR ACCOMMODATION MAKER. IF YOU DELIVER THE WRITTEN CERTIFICATE REFERENCED ABOVE TO US, (I) WE SHALL HAVE NO OBLIGATION TO DETERMINE WHETHER ANY OF THE STATEMENTS THEREIN ARE TRUE, (II) OUR OBLIGATIONS HEREUNDER SHALL NOT BE AFFECTED IN ANY MANNER WHATSOEVER IF THE STATEMENTS MADE IN SUCH CERTIFICATE ARE UNTRUE IN WHOLE OR IN PART, AND (III) OUR OBLIGATIONS HEREUNDER SHALL NOT BE AFFECTED IN ANY MANNER WHATSOEVER IF TENANT DELIVERS INSTRUCTIONS OR CORRESPONDENCE TO WHICH EITHER (A) DENIES THE TRUTH OF THE STATEMENT SET FORTH IN THE CERTIFICATE REFERRED TO ABOVE, OR (B) INSTRUCTS US NOT TO PAY BENEFICIARY ON THIS CREDIT FOR ANY REASON WHATSOEVER.

PARTIAL AND MULTIPLE DRAWS ARE ALLOWED. EXCEPT AS EXPRESSLY SET FORTH HEREIN, THIS LETTER OF CREDIT MUST ACCOMPANY ANY DRAWINGS HEREUNDER FOR ENDORSEMENT OF THE DRAWING AMOUNT AND WILL BE RETURNED TO THE BENEFICIARY UNLESS IT IS FULLY UTILIZED.

DRAFT(S) AND DOCUMENTS MUST INDICATE THE NUMBER AND DATE OF THIS LETTER OF CREDIT.

THIS LETTER OF CREDIT SHALL BE AUTOMATICALLY EXTENDED FOR AN ADDITIONAL PERIOD OF ONE YEAR, WITHOUT AMENDMENT, FROM THE PRESENT OR EACH FUTURE EXPIRATION DATE UNLESS AT LEAST SIXTY (60) DAYS PRIOR TO THE THEN CURRENT EXPIRATION DATE WE NOTIFY YOU BY REGISTERED MAIL/OVERNIGHT COURIER SERVICE AT THE ABOVE ADDRESSES THAT THIS LETTER OF CREDIT WILL NOT BE EXTENDED BEYOND THE CURRENT EXPIRATION DATE. IN NO EVENT SHALL THIS LETTER OF CREDIT BE AUTOMATICALLY EXTENDED BEYOND SIX (6) MONTHS BEYOND LEASE EXPIRATION.

THIS LETTER OF CREDIT MAY BE TRANSFERRED WITHOUT COST TO THE BENEFICIARY, ONE OR MORE TIMES BUT IN EACH INSTANCE TO A SINGLE BENEFICIARY AND ONLY IN THE FULL AMOUNT AVAILABLE TO BE DRAWN UNDER THE LETTER OF CREDIT AT THE TIME OF THE TRANSFER AND ONLY BY THE ISSUING BANK UPON OUR RECEIPT OF THE ATTACHED "EXHIBIT A" DULY COMPLETED AND EXECUTED BY THE BENEFICIARY AND ACCOMPANIED BY THE ORIGINAL LETTER OF CREDIT AND ALL AMENDMENTS, IF ANY.

ALL DEMANDS FOR PAYMENT SHALL BE MADE BY PRESENTATION OF THE ORIGINAL APPROPRIATE DOCUMENTS PRIOR TO 10:00 A.M. E.S.T. TIME, ON A BUSINESS DAY AT OUR OFFICE (THE "BANK'S OFFICE") AT:

BOSTON, MASSACHUSETTS , ATTENTION: OR BY FACSIMILE TRANSMISSION AT: (617) - ; AND SIMULTANEOUSLY UNDER TELEPHONE ADVICE TO: (617) - , ATTENTION: WITH ORIGINALS TO FOLLOW BY OVERNIGHT COURIER SERVICE.

PAYMENT AGAINST CONFORMING PRESENTATIONS HEREUNDER SHALL BE MADE BY BANK DURING NORMAL BUSINESS HOURS OF THE BANK'S OFFICE WITHIN ONE (1) BUSINESS DAY AFTER PRESENTATION.

WE HEREBY AGREE WITH THE DRAWERS, ENDORSERS AND BONAFIDE HOLDERS THAT THE DRAFTS DRAWN UNDER AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT SHALL BE DULY HONORED UPON PRESENTATION TO THE DRAWEE, IF NEGOTIATED ON OR BEFORE THE EXPIRATION DATE OF THIS CREDIT.

THIS LETTER OF CREDIT IS SUBJECT TO THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS (1993 REVISION), INTERNATIONAL CHAMBER OF COMMERCE, PUBLICATION NO. 500.

AUTHORIZED SIGNATURE AUTHORIZED SIGNATURE

EXHIBIT "A"

DATE:

TO:

RE: STANDBY LETTER OF CREDIT
NO. ISSUED BY
ATTN: L/C AMOUNT:

LADIES AND GENTLEMEN:

FOR VALUE RECEIVED, THE UNDERSIGNED BENEFICIARY HEREBY IRREVOCABLY TRANSFERS TO:

(NAME OF TRANSFEREE)
(ADDRESS)

ALL RIGHTS OF THE UNDERSIGNED BENEFICIARY TO DRAW UNDER THE ABOVE LETTER OF CREDIT UP TO ITS AVAILABLE AMOUNT AS SHOWN ABOVE AS OF THE DATE OF THIS TRANSFER.

BY THIS TRANSFER, ALL RIGHTS OF THE UNDERSIGNED BENEFICIARY IN SUCH LETTER OF CREDIT ARE TRANSFERRED TO THE TRANSFEREE. TRANSFEREE SHALL HAVE THE SOLE RIGHTS AS BENEFICIARY THEREOF, INCLUDING SOLE RIGHTS RELATING TO ANY AMENDMENTS, WHETHER INCREASES OR EXTENSIONS OR OTHER AMENDMENTS, AND WHETHER NOW EXISTING OR HEREAFTER MADE. ALL AMENDMENTS ARE TO BE ADVISED DIRECT TO THE TRANSFEREE WITHOUT NECESSITY OF ANY CONSENT OF OR NOTICE TO THE UNDERSIGNED BENEFICIARY.

THE ORIGINAL OF SUCH LETTER OF CREDIT IS RETURNED HEREWITH, AND WE ASK YOU TO ENDORSE THE TRANSFER ON THE REVERSE THEREOF, AND FORWARD IT DIRECTLY TO THE TRANSFEREE WITH YOUR CUSTOMARY NOTICE OF TRANSFER.

SINCERELY,

(BENEFICIARY'S NAME)

SIGNATURE OF BENEFICIARY

SIGNATURE AUTHENTICATED

(NAME OF BANK)

AUTHORIZED SIGNATURE

EXHIBIT "B"

DATE: REF. NO.

AT SIGHT OF THIS DRAFT

PAY TO THE ORDER OF US$

USDOLLARS

DRAWN UNDER BANK, BOSTON, MASSACHUSETTS, STANDBY LETTER OF CREDIT NUMBER NO.
DATED

TO: BANK

, MA

(BENEFICIARY'S NAME)

Authorized Signature

Exhibit 6
Location of Antenna Area and Rooftop Mechanical Area

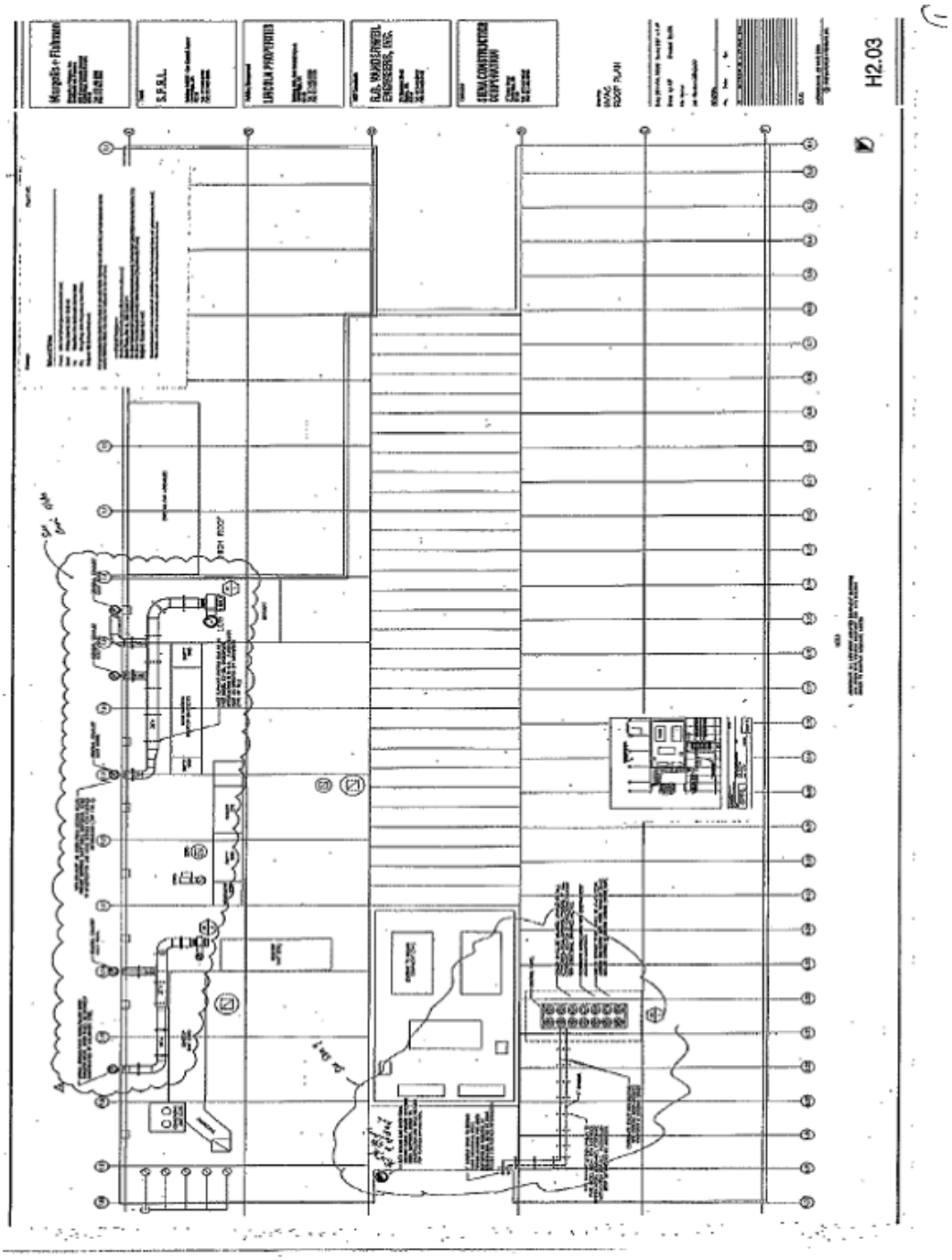


Exhibit 7
List of Materials

List of Hazardous Materials Used by Merrimack Pharmaceuticals

Type of Hazard	Name	Quantities up to
Chemical (flammables, corrosive, toxic)	Isopropanol	400 L
	Ethanol	200 L
	Methanol	30 L
	Acetonitrile	30 L
	Acetone	4 L
	Xylene	16 L
	Toluene	4 L
	Acetic Acid	16 L
	Hydrochloric Acid, 37%	16 L
	Hydrochloric Acid, 1N	120 L
	Hydrochloric Acid, 10N	120 L
	Sodium Hydroxide, 1N	1000 L
	Sodium Hydroxide, 10N	500 L
	Sulfuric Acid, 100%	4 L
	Sulfuric Acid, 2N	10 L
	Phosphoric Acid	12 L
	Chloroform	20 L
	Formaldehyde Solutions	40 L
	Paraformaldehyde, solid	300 g
	Tetrahydrofuran	2 L
	Ethylenediamine	
	Ethyl Ether	2 L
	Hydrozine Chloride	2 L
	Diethylamine	4 L
	Triethylamine	4 L
Cytotoxic Chemotherapeutic drugs		
	Doxorubicin	10 kg
	Irinotecan	10 kg
	Other oncology drugs (cisplatin, carboplatin, 5-Fluoracil, Wortmannin and others)	<10 g each
	Hormones and hormone anagonists (estrogen, tamoxifen, testosterone, anti-androgens)	<10 g each
Radioisotopes	Hydrogen-3	20 mCi
	Carbon-14	20 mCi
	Sulfur-35	30 mCi
	Copper-64	50 mCi
	Gallium-67	10 mCi
	Indium -111	10 mCi
	Iodine-125 (bound only)	30 mCi
	Technicium-99m	30 mCi
Controlled Substances	Ketamine	(we are licensed but are not in the possession of any)
Biological Hazardous Materials	Human Tissues, human blood and blood components that may contain Blood Borne Pathogens	N/A
	Human origin cells (Risk Group 2 agents)	N/A

	Lenti- and retroviruses for molecular biology purposes (Risk Group 2 agents)	N/A
	Bacterial, yeast and mammalian cells used for protein expression (Risk Group 1 agents)	N/A
Waste		
	Chemical Waste: waste is mixed (if compatible), collected, stored and shipped according to MA and federal regulations; Merrimack is Small Quantity Waste Generator)	<1000 gal at any given time
	Biological waste: mixed solid biologicals	
	Radiation Waste : mixed solids contaminated with long half-life isotopes	

Exhibit 7A
Allowable Quantities

See attached.

Basement

Liquids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
1A	30	60	60	0	0.75	3	1	2	0	0	0	gallons
1B & 1C	120	240	240	0	0.75	3	1	2	0	0	0	gallons
Combined Class 1	120	240	240	0	0.75	3	1	2	0	0	0	gallons
Class 2	120	240	240	480	0.75	3	1	2	360	0	720	gallons
Class 3A	330	660	660	1320	0.75	3	1	2	990	0	1980	gallons
Class 3B	13200	26400	26400	52800	0.75	3	1	2	39600	0	79200	gallons

Gas & Solids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
Flammable Gas	1000 ft3 at STP	2000	1000	2000	0.75	3	1	2	1500	0	3000	ft3 at STP
Flammable Solid	125 lbs	250	125	250	0.75	3	1	2	187.5	0	375	lbs
Pyrophoric Material	4 lbs	4	4	4	0.75	3	1	2	3	0	6	lbs
Unstable Class 4	1 lbs	1	1	1	0.75	3	1	2	0.75	0	1.5	lbs
Unstable Class 3	5 lbs	10	5	10	0.75	3	1	2	7.5	0	15	lbs
Unstable Class 2	50 lbs	100	50	100	0.75	3	1	2	75	0	150	lbs
Unstable Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.75	3	1	2	No Limit	0	No Limit	lbs
Water Reactive Class 3	5 lbs	10	5	10	0.75	3	1	2	7.5	0	15	lbs
Water Reactive Class 2	50 lbs	100	50	100	0.75	3	1	2	75	0	150	lbs
Water Reactive Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.75	3	1	2	No Limit	0	No Limit	lbs

1st Floor

Liquids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
1A	30	60	60	120	1	4	2	2	240	0	240	gallons
1B & 1C	120	240	240	480	1	4	2	2	960	35	925	gallons
Combined Class 1	120	240	240	480	1	4	2	2	960	0	960	gallons
Class 2	120	240	240	480	1	4	2	2	960	0	960	gallons
Class 3A	330	660	660	1320	1	4	2	2	2640	0	2640	gallons
Class 3B	13200	26400	26400	52800	1	4	2	2	105600	0	105600	gallons

Gas & Solids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
Flammable Gas	1000 ft3 at STP	2000	1000	2000	1	4	2	2	4000	0	4000	ft3 at STP
Flammable Solid	125 lbs	250	125	250	1	4	2	2	500	0	500	lbs
Pyrophoric Material	4 lbs	4	4	4	1	4	2	2	8	0	8	lbs
Unstable Class 4	1 lbs	1	1	1	1	4	2	2	2	0	2	lbs

Unstable Class 3	5 lbs	10	5	10	1	4	2	2	20	0	20	lbs
Unstable Class 2	50 lbs	100	50	100	1	4	2	2	200	0	200	lbs
Unstable Class 1	No Limit lbs	No Limit	No Limit	No Limit	1	4	2	2	No Limit	0	No Limit	lbs
Water Reactive Class 3	5 lbs	10	5	10	1	4	2	2	20	0	20	lbs
Water Reactive Class 2	50 lbs	100	50	100	1	4	2	2	200	0	200	lbs
Water Reactive Class 1	No Limit lbs	No Limit	No Limit	No Limit	1	4	2	2	No Limit	0	No Limit	lbs

2nd Floor

Liquids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	Cambridge BioLabs	OTHER AVAILABLE	
1A	30	60	60	120	0.75	3	2	1	180	0	90	gallons
1B & 1C	120	240	240	480	0.75	3	2	1	720	0	360	gallons
Combined Class 1	120	240	240	480	0.75	3	2	1	720	41	319	gallons
Class 2	120	240	240	480	0.75	3	2	1	720	0	360	gallons
Class 3A	330	660	660	1320	0.75	3	2	1	1980	0	990	gallons
Class 3B	13200	26400	26400	52800	0.75	3	2	1	79200	0	39600	gallons

Gas & Solids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	Cambridge BioLabs	OTHER AVAILABLE	
Flammable Gas	1000 ft3 at STP	2000	1000	2000	0.75	3	2	1	3000	0	1500	ft3 at STP
Flammable Solid	125 lbs	250	125	250	0.75	3	2	1	375	0	187.5	lbs
Pyrophoric Material	4 lbs	4	4	4	0.75	3	2	1	6	0	3	lbs
Unstable Class 4	1 lbs	1	1	1	0.75	3	2	1	1.5	0	0.75	lbs
Unstable Class 3	5 lbs	10	5	10	0.75	3	2	1	15	0	7.5	lbs
Unstable Class 2	50 lbs	100	50	100	0.75	3	2	1	150	0	75	lbs
Unstable Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.75	3	2	1	No Limit	0	No Limit	lbs
Water Reactive Class 3	5 lbs	10	5	10	0.75	3	2	1	15	0	7.5	lbs
Water Reactive Class 2	50 lbs	100	50	100	0.75	3	2	1	150	0	75	lbs
Water Reactive Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.75	3	2	1	No Limit	0	No Limit	lbs

3rd Floor

Liquids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
1A	30	60	60	120	0.5	2	0	2	0	0	120	gallons
1B & 1C	120	240	240	480	0.5	2	0	2	0	0	480	gallons
Combined Class 1	120	240	240	480	0.5	2	0	2	0	0	480	gallons
Class 2	120	240	240	480	0.5	2	0	2	0	0	480	gallons
Class 3A	330	660	660	1320	0.5	2	0	2	0	0	1320	gallons
Class 3B	13200	26400	26400	52800	0.5	2	0	2	0	0	52800	gallons

Gas & Solids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
Flammable Gas	1000 ft3 at STP	2000	1000	2000	0.5	2	0	2	0	0	2000	ft3 at STP
Flammable Solid	125 lbs	250	125	250	0.5	2	0	2	0	0	250	lbs
Pyrophoric Material	4 lbs	4	4	4	0.5	2	0	2	0	0	4	lbs

Unstable Class 4	1 lbs	1	1	1	0.5	2	0	2	0	0	1	lbs
Unstable Class 3	5 lbs	10	5	10	0.5	2	0	2	0	0	10	lbs
Unstable Class 2	50 lbs	100	50	100	0.5	2	0	2	0	0	100	lbs
Unstable Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.5	2	0	2	No Limit	0	No Limit	lbs
Water Reactive Class 3	5 lbs	10	5	10	0.5	2	0	2	0	0	10	lbs
Water Reactive Class 2	50 lbs	100	50	100	0.5	2	0	2	0	0	100	lbs
Water Reactive Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.5	2	0	2	No Limit	0	No Limit	lbs

4th Floor

Liquids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
1A	30	60	60	120	0.125	2	2	0	30	0	0	gallons
1B & 1C	120	240	240	480	0.125	2	2	0	120	0	0	gallons
Combined Class 1	120	240	240	480	0.125	2	2	0	120	0	0	gallons
Class 2	120	240	240	480	0.125	2	2	0	120	0	0	gallons
Class 3A	330	660	660	1320	0.125	2	2	0	330	0	0	gallons
Class 3B	13200	26400	26400	52800	0.125	2	2	0	13200	0	0	gallons

Gas & Solids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
Flammable Gas	1000 ft3 at STP	2000	1000	2000	0.125	2	2	0	500	0	0	ft3 at STP
Flammable Solid	125 lbs	250	125	250	0.125	2	2	0	62.5	0	0	lbs
Pyrophoric Material	4 lbs	4	4	4	0.125	2	2	0	1	0	0	lbs
Unstable Class 4	1 lbs	1	1	1	0.125	2	2	0	0.25	0	0	lbs
Unstable Class 3	5 lbs	10	5	10	0.125	2	2	0	2.5	0	0	lbs
Unstable Class 2	50 lbs	100	50	100	0.125	2	2	0	25	0	0	lbs
Unstable Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.125	2	2	0	No Limit	0	No Limit	lbs
Water Reactive Class 3	5 lbs	10	5	10	0.125	2	2	0	2.5	0	0	lbs
Water Reactive Class 2	50 lbs	100	50	100	0.125	2	2	0	25	0	0	lbs
Water Reactive Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.125	2	2	0	No Limit	0	No Limit	lbs

5th Floor

Liquids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
1A	30	60	60	120	0.125	2	0.5	1.5	7.5	0	22.5	gallons
1B & 1C	120	240	240	480	0.125	2	0.5	1.5	30	0	90	gallons
Combined Class 1	120	240	240	480	0.125	2	0.5	1.5	30	0	90	gallons
Class 2	120	240	240	480	0.125	2	0.5	1.5	30	0	90	gallons
Class 3A	330	660	660	1320	0.125	2	0.5	1.5	82.5	0	247.5	gallons
Class 3B	13200	26400	26400	52800	0.125	2	0.5	1.5	3300	0	9900	gallons

Gas & Solids

Class	Baseline Permitted Storage	Adjusted for 100% A.S.	Adjusted for 100% Cabinets	Adjusted for both A.S. & Cab.	% Above or Below Grade	Total Control Areas	Merrimack Control Areas	Remaining Control Areas	MERRIMACK ALLOWANCE	OTHER USAGE	OTHER AVAILABLE	
Flammable Gas	1000 ft3 at STP	2000	1000	2000	0.125	2	0.5	1.5	125	0	375	ft3 at STP
Flammable Solid	125 lbs	250	125	250	0.125	2	0.5	1.5	15.625	0	46.875	lbs
Pyrophoric	4 lbs	4	4	4	0.125	2	0.5	1.5	0.25	0	0.75	lbs

Material												
Unstable Class 4	1 lbs	1	1	1	0.125	2	0.5	1.5	0.0625	0	0.1875	lbs
Unstable Class 3	5 lbs	10	5	10	0.125	2	0.5	1.5	0.625	0	1.875	lbs
Unstable Class 2	50 lbs	100	50	100	0.125	2	0.5	1.5	6.25	0	18.75	lbs
Unstable Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.125	2	0.5	1.5	No Limit	0	No Limit	lbs
Water Reactive Class 3	5 lbs	10	5	10	0.125	2	0.5	1.5	0.625	0	1.875	lbs
Water Reactive Class 2	50 lbs	100	50	100	0.125	2	0.5	1.5	6.25	0	18.75	lbs
Water Reactive Class 1	No Limit lbs	No Limit	No Limit	No Limit	0.125	2	0.5	1.5	No Limit	0	No Limit	lbs

Exhibit 8
Included Equipment

1. All Hoods and casework
   A. MOTTO Equipment Corp (6') Hood Model # 74 in QC Lab.
   B. VWR Scientific Product (5') Hood in PD Downstream Lab.
   C. Baker Sterile Guard Hood, Class II Type A/B3 PD in Upstream Lab.
   D. Walk-in Cold Room 10X20 Controlled Environment Structures in QC Lab.
   E. Walk –in Cold Room 16x12 Controlled Environment Structures in Ware House S&R
   F. Busch Mink/Air Energy Vacuum System 1104BV Serial # U103305985/Tank #PSP023XB

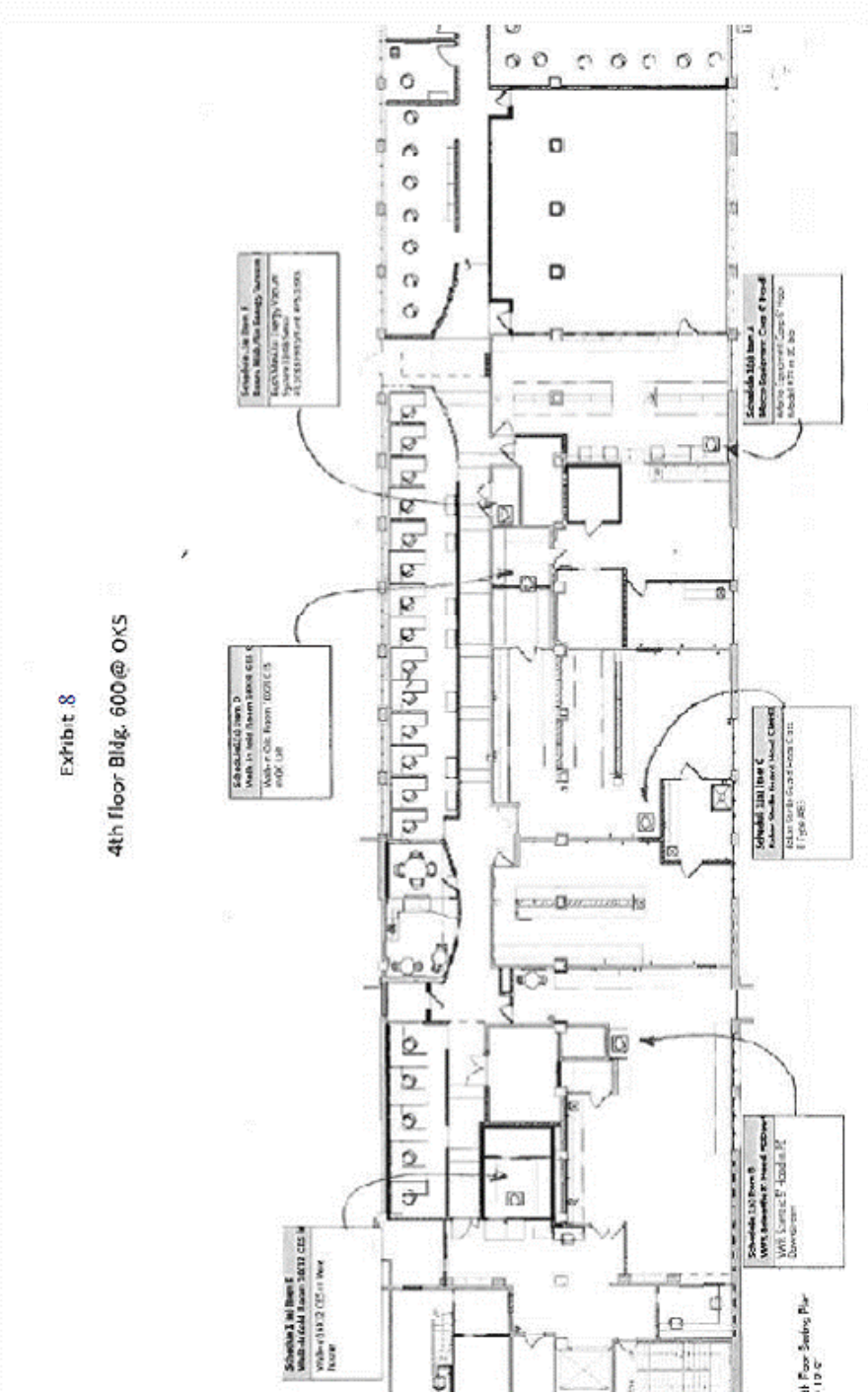


Exhibit 8A
Tenant's Removable Property

Installed fixtures or equipment that has been paid for directly by Tenant that may include:

Autoclaves
Cagewashers
Glasswashers
Refrigerators
Biosafety cabinets
NMR equipment
RODI pure water skids, Less 2nd floor Bldg. 700
Video and Audio Systems
Sever systems and Racks
Specialty Systems and Equipment Related to Science, e.g.; Bio Reactors, Gas Systems, Pasteurizers Steam Systems, pertaining to manufacturing only
Incubators

NOTE: Any items that have been paid for out of Landlord's Contribution will not be considered part of Tenant's Removable Property and shall remain in the Premises at the expiration or earlier termination of the Lease.

Exhibit 9
Plan Showing ROFR Space

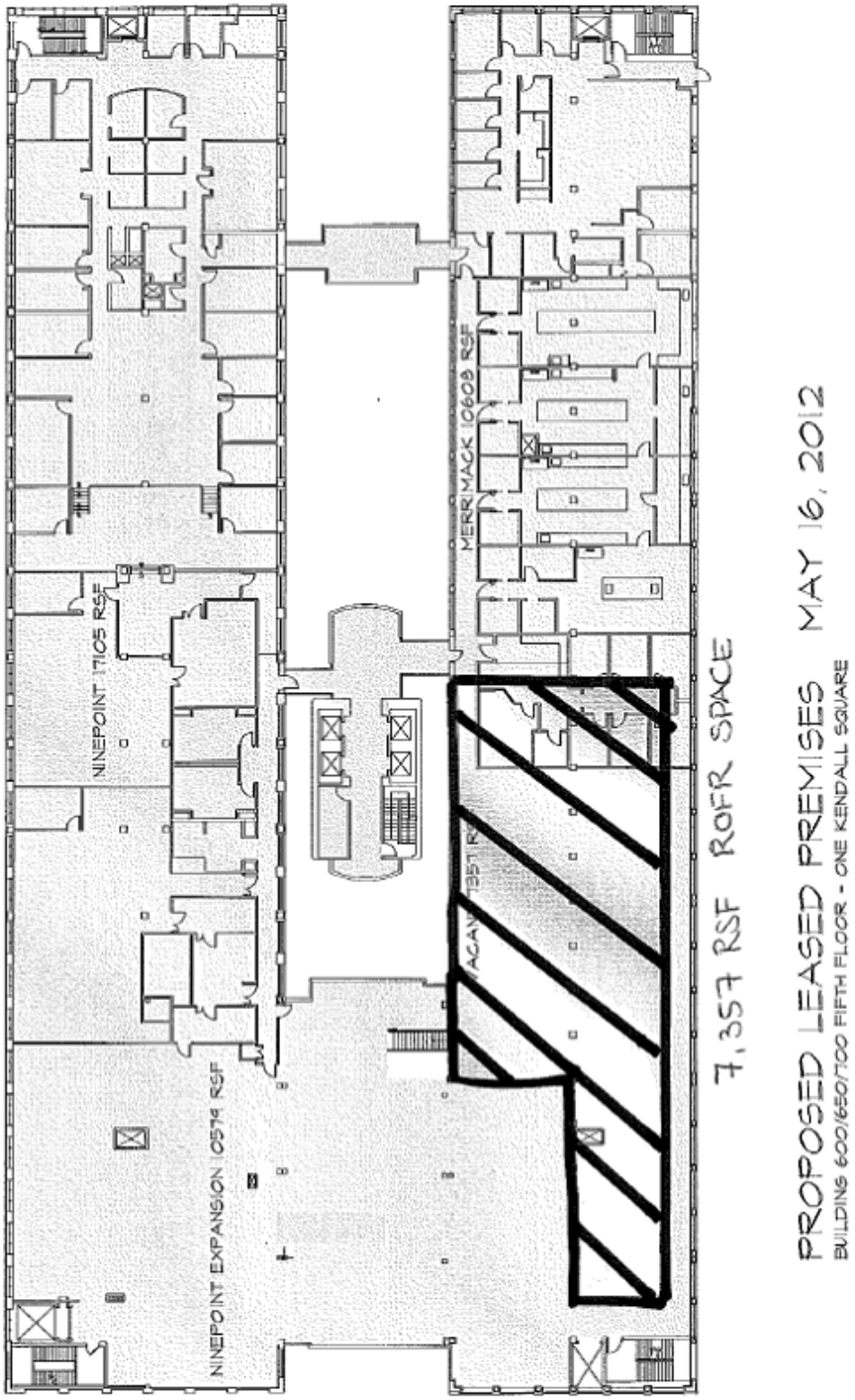


Exhibit 10
Decommissioning Reports

Genzyme Decommissioning Report Phase 2 Memo Dated March 7, 2008, and attachments
Genzyme Post Departure Environmental Report- Dated May 13, 2008, prepared by Vitale & Hopcroft Associates
Foundation Medicine Summary Letter dated June 10, 2011, prepared by Triumvirate Environmental

Exhibit 11
Additional Dunnage

Roof Drainage
For Additional
Generator
(See Photo Attached)
11

Exhibit 12
Environmental Assessment Report

“Phase I Environmental Site Assessment” prepared by GEI Consultants dated January 16, 2006

Exhibit 13
Non-Exclusive Signage Location

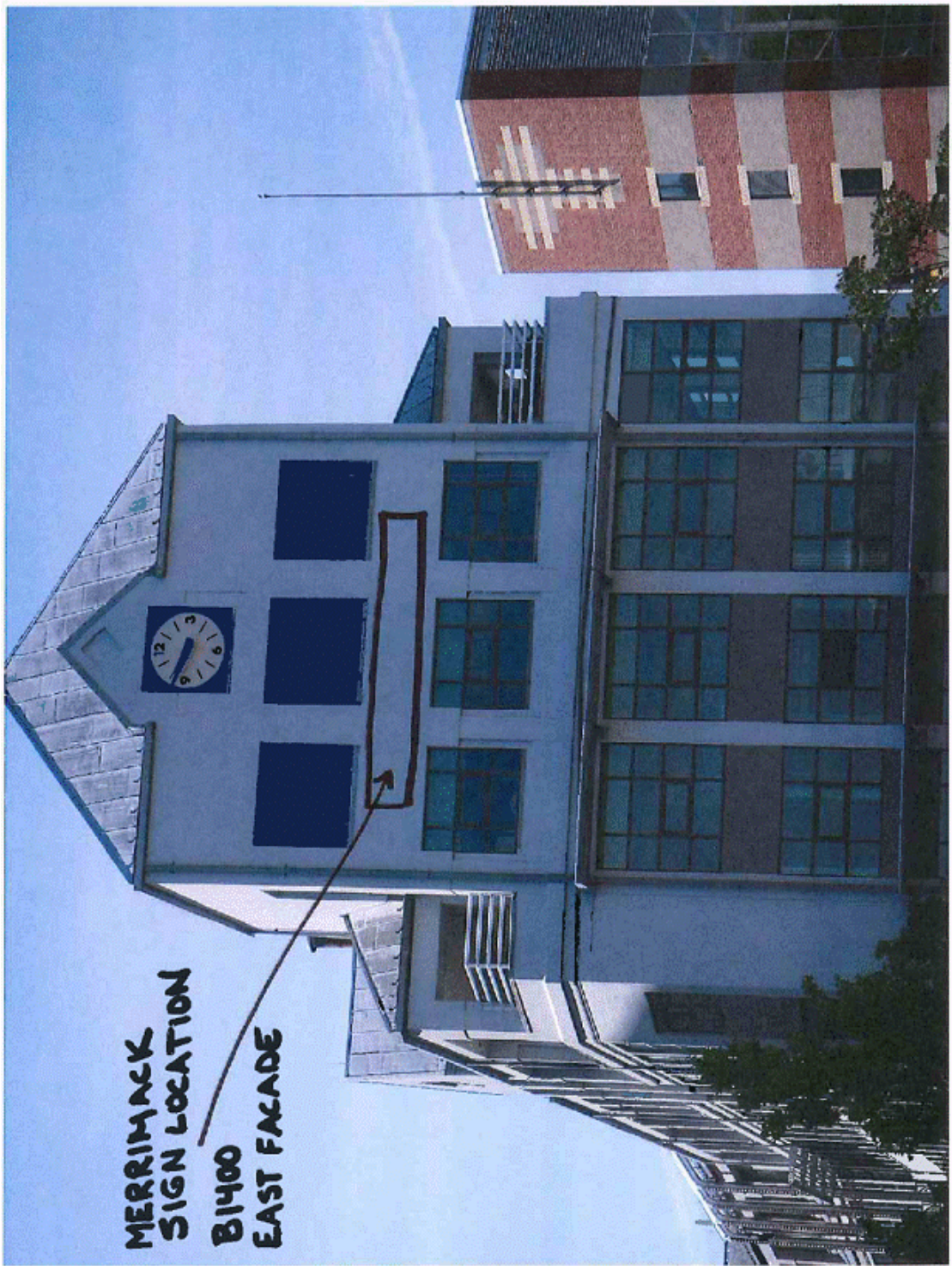


Exhibit 14
Superior Rights

Building 600/700	
NinePoint Medical, Inc.	ROFO on contiguous space on 5th Floor at Building 600/700
Building 200	
Tetra Tech Inc.	ROFO on any adjacent space on 2nd Floor of Building 200. Not less than 18 months left on term. Impacted spaces: 3,404 rsf Lab (currently vacant); 5,589 rsf office (Quanta)
Next Jump, Inc.	ROFO on contiguous space on 4th Floor of Building 200. Impacted spaces: 5,000 rsf office (Ascent)
Abcam Inc.	ROFO on any space on 3rd Floor of Building 200.

Exhibit 31.1

CERTIFICATIONS

I, Robert J. Mulroy, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Merrimack Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 14, 2012

/s/ Robert J. Mulroy
Robert J. Mulroy
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATIONS

I, William A. Sullivan, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Merrimack Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 14, 2012

/s/ William A. Sullivan
William A. Sullivan
Chief Financial Officer and Treasurer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Merrimack Pharmaceuticals, Inc. (the "Company") for the period ended September 30, 2012 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Robert J. Mulroy, President and Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 14, 2012

/s/ Robert J. Mulroy
Robert J. Mulroy
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Merrimack Pharmaceuticals, Inc. (the "Company") for the period ended September 30, 2012 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, William A. Sullivan, Chief Financial Officer and Treasurer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 14, 2012

/s/ William A. Sullivan
William A. Sullivan
Chief Financial Officer and Treasurer
(Principal Financial Officer)