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

Form 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2018

or

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

For the transition period from to .

Commission file number: 001-34207

Dynavax Technologies Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

33-0728374
(IRS Employer
Identification No.)

**2929 Seventh Street, Suite 100
Berkeley, CA 94710-2753
(510) 848-5100**

(Address, including Zip Code, and telephone number, including area code, of the registrant's principal executive offices)

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

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

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

As of November 2, 2018, the registrant had outstanding 62,691,478 shares of common stock.

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DYNAVAX TECHNOLOGIES CORPORATION

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which are subject to a number of risks and uncertainties. All statements that are not historical facts are forward-looking statements, including statements about our ability to successfully commercialize HEPLISAV-B® and our anticipated level of sales of HEPLISAV-B®, our ability to successfully develop and timely obtain regulatory approval of SD-101 and DV281, and our other early stage compounds, our business, collaboration and regulatory strategy, our intellectual property position, our product development efforts, our ability to manufacture commercial supply and meet regulatory requirements, the timing of the introduction of our products, uncertainty regarding our capital needs and future operating results and profitability, anticipated sources of funds as well as our plans, objectives, strategies, expectations and intentions. These statements appear throughout this Quarterly Report on Form 10-Q and can be identified by the use of forward-looking language such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “future,” or “intend,” or the negative of these terms or other variations or comparable terminology.

Actual results may vary materially from those in our forward-looking statements as a result of various factors that are identified in “Item 1A—Risk Factors” and “Item 2—Management’s Discussion and Analysis of Financial Condition and Results of Operations” and elsewhere in this document. No assurance can be given that the risk factors described in this Quarterly Report on Form 10-Q are all of the factors that could cause actual results to vary materially from the forward-looking statements. All forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q. Readers should not place undue reliance on these forward-looking statements and are cautioned that any such forward-looking statements are not guarantees of future performance. We assume no obligation to update any forward-looking statements.

This Quarterly Report on Form 10-Q includes trademarks and registered trademarks of Dynavax Technologies Corporation. Products or service names of other companies mentioned in this Quarterly Report on Form 10-Q may be trademarks or registered trademarks of their respective owners. References herein to “we,” “our,” “us,” “Dynavax” or the “Company” refer to Dynavax Technologies Corporation and, where appropriate, its subsidiary Dynavax GmbH.

ITEM 1. FINANCIAL STATEMENTS

Dynavax Technologies Corporation
Condensed Consolidated Balance Sheets
(In thousands, except per share amounts)

	September 30, 2018 <u>(unaudited)</u>	December 31, 2017 <u>(Note 1)</u>
Assets		
Current assets:		
Cash and cash equivalents	\$ 38,712	\$ 26,584
Marketable securities available-for-sale	141,509	165,270
Accounts and other receivables	1,507	854
Inventories, net	12,452	312
Intangible assets, net	-	1,306
Prepaid expenses and other current assets	4,604	3,697
Total current assets	<u>198,784</u>	<u>198,023</u>
Property and equipment, net	16,933	16,619
Intangible assets, net	14,041	-
Goodwill	2,174	2,244
Restricted cash	622	629
Other assets	3,834	1,270
Total assets	<u>\$ 236,388</u>	<u>\$ 218,785</u>
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 4,089	\$ 4,539
Accrued research and development	6,003	4,359
Accrued liabilities	14,506	9,695
Other current liabilities	7,000	-
Total current liabilities	<u>31,598</u>	<u>18,593</u>
Long-term debt, net	100,319	-
Other long-term liabilities	7,458	643
Total liabilities	<u>139,375</u>	<u>19,236</u>
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Preferred stock: \$0.001 par value; 5,000 shares authorized at September 30, 2018 and December 31, 2017; no shares issued and outstanding at September 30, 2018 and December 31, 2017	-	-
Common stock: \$0.001 par value; 139,000 shares authorized at September 30, 2018 and December 31, 2017; 62,691 and 61,533 shares issued and outstanding at September 30, 2018 and December 31, 2017, respectively	63	62
Additional paid-in capital	1,124,892	1,107,693
Accumulated other comprehensive loss	(1,687)	(881)
Accumulated deficit	(1,026,255)	(907,325)
Total stockholders' equity	<u>97,013</u>	<u>199,549</u>
Total liabilities and stockholders' equity	<u>\$ 236,388</u>	<u>\$ 218,785</u>

See accompanying notes.

Dynavax Technologies Corporation
Condensed Consolidated Statements of Operations
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenues:				
Product revenue, net	\$ 1,461	\$ -	\$ 2,880	\$ -
Grant revenue	-	53	-	306
Total revenues	1,461	53	2,880	306
Operating expenses:				
Cost of sales - product	3,927	-	9,309	-
Cost of sales - amortization of intangible assets	3,823	-	8,538	-
Research and development	16,820	16,417	52,059	47,576
Selling, general and administrative	15,788	6,027	48,332	18,111
Restructuring	-	-	-	2,783
Total operating expenses	40,358	22,444	118,238	68,470
Loss from operations	(38,897)	(22,391)	(115,358)	(68,164)
Other income (expense):				
Interest income	1,047	429	2,940	809
Interest expense	(2,735)	-	(6,587)	-
Other income (expense), net	57	(166)	75	(378)
Net loss	\$ (40,528)	\$ (22,128)	\$ (118,930)	\$ (67,733)
Basic and diluted net loss per share	\$ (0.65)	\$ (0.38)	\$ (1.91)	\$ (1.36)
Weighted average shares used to compute basic and diluted net loss per share	62,650	57,650	62,250	49,785

Condensed Consolidated Statements of Comprehensive Loss
(In thousands)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net loss	\$ (40,528)	\$ (22,128)	\$ (118,930)	\$ (67,733)
Other comprehensive (loss) income, net of tax:				
Unrealized (loss) gain on marketable securities available-for-sale	(10)	14	(15)	(31)
Foreign currency translation adjustments	(167)	759	(791)	2,499
Total other comprehensive (loss) income	(177)	773	(806)	2,468
Total comprehensive loss	\$ (40,705)	\$ (21,355)	\$ (119,736)	\$ (65,265)

See accompanying notes.

Dynavax Technologies Corporation
Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2018	2017 (As Adjusted)
Operating activities		
Net loss	\$ (118,930)	\$ (67,733)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,511	2,456
Gain on disposal of property and equipment	-	(32)
Accretion of discounts on marketable securities	(1,146)	(104)
Reversal of deferred rent upon lease amendment	-	(209)
Stock compensation expense	17,135	10,844
Cost of sales - amortization of intangible assets	8,538	-
Non-cash interest expense	1,944	-
Changes in operating assets and liabilities:		
Accounts and other receivables	(653)	559
Inventories, net	(12,140)	-
Prepaid expenses and other current assets	(907)	(1,841)
Other assets	(2,564)	(936)
Accounts payable	2,377	(1,499)
Accrued liabilities and other long term liabilities	6,164	(1,274)
Net cash used in operating activities	<u>(97,671)</u>	<u>(59,769)</u>
Investing activities		
Acquisition of technology licenses	(11,000)	-
Purchases of marketable securities	(187,808)	(192,684)
Proceeds from maturities of marketable securities	212,700	78,298
Purchases of property and equipment, net	(2,838)	(374)
Net cash provided by (used in) investing activities	<u>11,054</u>	<u>(114,760)</u>
Financing activities		
Proceeds from long-term debt, net	99,000	-
Proceeds from issuance of common stock, net	-	169,187
(Tax withholding) proceeds from exercise of stock options and restricted stock awards, net	(529)	285
Proceeds from Employee Stock Purchase Plan	594	292
Net cash provided by financing activities	<u>99,065</u>	<u>169,764</u>
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(327)	596
Net increase (decrease) in cash, cash equivalents and restricted cash	12,121	(4,169)
Cash, cash equivalents and restricted cash at beginning of period	27,213	24,891
Cash, cash equivalents and restricted cash at end of period	<u>\$ 39,334</u>	<u>\$ 20,722</u>
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	\$ 4,643	\$ -
Release of accrual for litigation settlement and insurance recovery (Note 6)	<u>\$ -</u>	<u>\$ 4,050</u>
Non-cash investing and financing activities:		
Disposal of fully depreciated property and equipment	<u>\$ 199</u>	<u>\$ -</u>
Non-cash acquisition of technology license	<u>\$ 12,773</u>	<u>\$ -</u>
Common stock issuance costs - cash not paid as of period end	<u>\$ -</u>	<u>\$ 110</u>

See accompanying notes.

Dynavax Technologies Corporation
Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. Organization and Summary of Significant Accounting Policies

Dynavax Technologies Corporation (“we,” “our,” “us,” “Dynavax” or the “Company”), is a fully-integrated biopharmaceutical company focused on leveraging the power of the body’s innate and adaptive immune responses through toll-like receptor (“TLR”) stimulation. Our first commercial product, HEPLISAV-B® (Hepatitis B Vaccine (Recombinant), Adjuvanted), was approved by the United States Food and Drug Administration (“FDA”) in November 2017 for prevention of infection caused by all known subtypes of hepatitis B virus in adults age 18 years and older. We commenced commercial shipments of HEPLISAV-B in January 2018 and deployed our field sales force in late February 2018. Our development efforts are primarily focused on stimulating the innate immune response to treat cancer in combination with other immunomodulatory agents. Our lead investigational immuno-oncology products are SD-101, currently being evaluated in Phase 2 clinical studies, and DV281, in a Phase 1 safety study. We were incorporated in California in August 1996 under the name Double Helix Corporation, and we changed our name to Dynavax Technologies Corporation in September 1996. We reincorporated in Delaware in 2000.

Basis of Presentation

Our accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) for interim financial information and pursuant to the instructions to Form 10-Q and Article 10 of Regulation S-X. In our opinion, these unaudited condensed consolidated financial statements include all adjustments, consisting of normal recurring adjustments, which we consider necessary to present fairly our financial position and the results of our operations and cash flows. As permitted under those rules, certain footnotes or other financial information that are normally required by GAAP have been condensed or omitted. Interim-period results are not necessarily indicative of results of operations or cash flows to be expected for a full-year period or any other interim-period. The condensed consolidated balance sheet at December 31, 2017 has been derived from audited financial statements at that date, but excludes disclosures required by GAAP for complete financial statements.

The unaudited condensed consolidated financial statements and these notes should be read in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission (the “SEC”).

The unaudited condensed consolidated financial statements include the accounts of Dynavax and our wholly-owned subsidiary, Dynavax GmbH. All significant intercompany accounts and transactions among these entities have been eliminated from the condensed consolidated financial statements. We operate in one business segment: the discovery, development and commercialization of biopharmaceutical products.

Liquidity and Financial Condition

As of September 30, 2018, we had cash, cash equivalents and marketable securities of \$180.2 million. In addition, we have the right to borrow up to an additional \$75.0 million at our option on or before July 17, 2019 under our term loan agreement (“Loan Agreement”) with CRG Servicing LLC, subject to the satisfaction of a market capitalization requirement of \$300 million and customary closing conditions. During the nine months ended September 30, 2018, we used \$97.7 million of cash in operating activities and paid \$11.0 million in fees under patent license agreements relating to HEPLISAV-B.

We have incurred significant operating losses and negative cash flows from our operations since our inception and we expect to incur significant expenses and operating losses for the foreseeable future as we continue to invest in commercialization of HEPLISAV-B, clinical trials and other development, manufacturing and regulatory activities for our immuno-oncology product candidates and discovery research and development. Until we can generate a sufficient amount of revenue from product sales, we will need to finance our operations through strategic alliance and licensing arrangements and/or future public or private debt and equity financings. Adequate financing may not be available to us on acceptable terms, or at all.

Our ability to raise additional capital in the equity and debt markets, should we choose to do so, is dependent on a number of factors, including, but not limited to, the market demand for our common stock, which itself is subject to a number of development and business risks and uncertainties, our creditworthiness and the uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make informed estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes. Management's estimates are based on historical information available as of the date of the condensed consolidated financial statements and various other assumptions we believe are reasonable under the circumstances. Actual results could differ materially from these estimates.

Summary of Significant Accounting Policies

Revenue Recognition

On January 1, 2018, we adopted Accounting Standards Codification, ("ASC") 606, Revenue from Contracts with Customers, using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Under the modified retrospective method, results for the reporting period beginning January 1, 2018 are presented under ASC 606, while the cumulative effect of initially applying the guidance is reflected as an adjustment to the opening balance of retained earnings at January 1, 2018. Adoption of this ASC did not have a material impact on our consolidated financial statements as there were no remaining performance obligations under our license and collaboration agreements as of the adoption date.

While results for reporting periods beginning after January 1, 2018 are presented under ASC 606, prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior period. The accounting policy for revenue recognition for periods prior to January 1, 2018 is described in Note 1 of the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2017.

Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. We only apply the five-step model to contracts when it is probable that we will collect the consideration we are entitled to in exchange for the goods or services we transfer to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, we assess the goods or services promised within each contract and determine those that are performance obligations, and assess whether each promised good or service is distinct. We then recognize as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Product Revenue, Net

We sell our product to a limited number of wholesalers and specialty distributors in the U.S. (collectively, our "Customers"). Revenues from product sales are recognized when we have satisfied our performance obligation, which is the transfer of control of our product upon delivery to the Customer. The timing between the recognition of revenue for product sales and the receipt of payment is not significant. Because our standard credit terms are short-term and we expect to receive payment in less than one-year, there is no financing component on the related receivables. Overall, product revenue, net, reflects our best estimates of the amount of consideration to which we are entitled based on the terms of the contract. The amount of variable consideration is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur in a future period. If our estimates differ significantly from actuals, we will record adjustments that would affect product revenue, net in the period of adjustment.

Reserves for Variable Consideration

Revenues from product sales are recorded at the net sales price, which includes estimates of variable consideration such as product returns, chargebacks, discounts, rebates and other fees that are offered within contracts between us and our Customers, healthcare providers, and others relating to our product sales. We estimate variable consideration using either the most likely amount method or the expected value method, depending on the type of variable consideration and what method better predicts the amount of consideration we expect to receive. We take into consideration relevant factors such as industry data, current contractual terms, available information about Customers' inventory, resale and chargeback data and forecasted customer buying and payment patterns, in estimating each variable consideration. The variable consideration is recorded at the time product sales is recognized, resulting in a reduction in product revenue and a reduction in accounts receivable (if the Customer offsets the amount against its accounts receivable) or as an accrued liability (if we pay the amount through our accounts payable process). Variable consideration requires significant estimates, judgment and information obtained from external sources. The amount of variable consideration is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur in a future period. If our estimates differ significantly from actuals, we will record adjustments that would affect product revenue, net in the period of adjustment.

Product Returns: Consistent with industry practice, we offer our Customers a limited right of return based on the product's expiration date for product that has been purchased from us. We estimate the amount of our product sales that may be returned by our Customers and record this estimate as a reduction of revenue in the period the related product revenue is recognized. We consider several factors in the estimation of potential product returns including expiration dates of the product shipped, the limited product return rights, available information about Customers' inventory, shelf life of the product and other relevant factors.

Chargebacks: Our Customers subsequently resell our product to healthcare providers. In addition to distribution agreements with Customers, we enter into arrangements with healthcare providers that provide for chargebacks and discounts with respect to the purchase of our product. Chargebacks represent the estimated obligations resulting from contractual commitments to sell product to qualified healthcare providers at prices lower than the list prices charged to Customers who directly purchase the product from us. Customers charge us for the difference between what they pay for the product and the ultimate selling price to the qualified healthcare providers. These reserves are established in the same period that the related revenue is recognized, resulting in a reduction of product revenue and accounts receivable. Chargeback amounts are determined at the time of resale to the qualified healthcare provider by Customers, and we issue credits for such amounts generally within a few weeks of the Customer's notification to us of the resale. Reserves for chargebacks consists of credits that we expect to issue for units that remain in the distribution channel inventories at each reporting period end that we expect will be sold to qualified healthcare providers, and chargebacks for units that our Customers have sold to healthcare providers, but for which credits have not been issued.

Trade Discounts and Allowances: We provide our Customers with discounts which include early payment incentives that are explicitly stated in our contracts, and are recorded as a reduction of revenue in the period the related product revenue is recognized.

Distribution Fees: Distribution fees include fees paid to certain Customers for sales order management, data and distribution services. Distribution fees are recorded as a reduction of revenue in the period the related product revenue is recognized.

Inventories

Inventory is stated at the lower of cost or estimated net realizable value, on a first-in, first-out, or FIFO, basis. We primarily use actual costs to determine our cost basis for inventories. We consider regulatory approval of product candidates to be uncertain and product manufactured prior to regulatory approval may not be sold unless regulatory approval is obtained. As such, the manufacturing costs for product candidates incurred prior to regulatory approval are not capitalized as inventory but are expensed as research and development costs. We begin capitalization of these inventory related costs once regulatory approval is obtained.

HEPLISAV-B was approved by the FDA on November 9, 2017, at which time we began to capitalize inventory costs associated with HEPLISAV-B. Prior to FDA approval of HEPLISAV-B, all costs related to the manufacturing of HEPLISAV-B that could potentially be available to support the commercial launch of our products, were charged to research and development expense in the period incurred as there was no alternative future use. We periodically analyze our inventory levels, and will write down inventory that has become obsolete, inventory that has a cost basis in excess of its estimated realizable value and inventory in excess of expected sales requirements. Expired inventory will be disposed of and the related costs written off.

Intangible Assets

We record definite-lived intangible assets related to certain capitalized milestone and license payments. After determining that the pattern of future cash flows associated with the intangible assets could not be reliably estimated with a high level of precision, these assets are amortized on a straight-line basis over their remaining useful lives, which are estimated to be the remaining patent life. If our estimate of HEPLISAV-B's useful life is shorter than the remaining patent life, then the shorter period is used. We assess our intangible assets for impairment if indicators are present or changes in circumstance suggest that impairment may exist. No impairment of intangible assets has been identified during the nine months ended September 30, 2018.

Research and Development Expenses and Accruals

Research and development expenses include personnel and facility-related expenses, outside contracted services including clinical trial costs, manufacturing and process development costs, research costs and other consulting services and non-cash stock-based compensation. Research and development costs are expensed as incurred. Amounts due under contracts with third parties may be either fixed fee or fee for service, and may include upfront payments, monthly payments and payments upon the completion of milestones or receipt of deliverables. Non-refundable advance payments under agreements are capitalized and expensed as the related goods are delivered or services are performed.

We contract with third parties to perform various clinical trial activities in the on-going development of potential products. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows to our vendors. Payments under the contracts depend on factors such as the achievement of certain events, successful enrollment of patients, and completion of portions of the clinical trial or similar conditions. Our accrual for clinical trials is based on estimates of the services received and efforts expended pursuant to contracts with clinical trial centers and clinical research organizations. We may terminate these contracts upon written notice and we are generally only liable for actual effort expended by the organizations to the date of termination, although in certain instances we may be further responsible for termination fees and penalties. We estimate our research and development expenses and the related accrual as of each balance sheet date based on the facts and circumstances known to us at that time. There have been no material adjustments to the prior period accrued estimates for clinical trial activities through September 30, 2018.

Restructuring

Restructuring costs are comprised of severance costs related to workforce reductions. We recognize restructuring charges when the liability is incurred. Employee termination benefits are accrued at the date management has committed to a plan of termination and employees have been notified of their termination dates and expected severance payments.

Income Taxes

We account for income taxes using the asset and liability method, under which deferred tax assets and liabilities are determined based on the differences between the financial reporting and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Tax law and rate changes are reflected in income in the period such changes are enacted. The Company includes interest and penalties related to income taxes, including unrecognized tax benefits, within income tax expense.

On December 22, 2017, President Trump signed U.S. tax reform legislation, commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"), which became effective January 1, 2018. The Tax Act significantly changes the fundamentals of U.S. corporate income taxation by, among many other things, reducing the U.S. federal corporate income tax rate to 21%, converting to a territorial tax system, and creating various income inclusion and expense limitation provisions. We have performed a review of the Tax Act, and based on information available at September 30, 2018, recorded certain provisional amounts related to the revaluation of our deferred taxes and the realization of certain tax credit carryforwards. The accounting for these provisional amounts is expected to be completed within the one year measurement period allowed under Staff Accounting Bulletin 118. Due to insufficient guidance on certain aspects of the Tax Act, such as officers' compensation, as well as uncertainty around the GAAP treatment associated with many other parts of the Tax Act, such as the implementation of certain international provisions, we cannot be certain that all deferred tax assets and liabilities have been established for the future effects of the legislation. Therefore, the final accounting for these provisions is subject to change as further information becomes available and further analysis is complete. Additionally, given the uncertainty and complexity of these new international tax regimes, we are continuing to evaluate how these provisions will be accounted for under U.S. generally accepted accounting principles; therefore, we have not yet adopted an accounting policy for treating the effects of these provisions as either a component of income tax expense in the period the tax arises, or through adjusting our deferred tax assets and liabilities to account for the estimated future impact of the special international tax regimes.

Recent Accounting Pronouncements

Accounting Standards Update 2016-02

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, Leases (Topic 842) which requires a lessee to recognize a right-of-use asset and corresponding lease liability, measured at the present value of the lease payments, for all leases with a lease term greater than 12 months. In July 2018, the FASB issued ASU 2018-11, Targeted Improvements, which gives the option to apply the transition provisions of ASU 2016-02 at its adoption date instead of at the earliest comparative period presented in its financial statements. Also in July 2018, the FASB issued ASU 2018-10, Codification Improvements to Topic 842, Leases, which clarifies certain aspects of ASU 2016-02. We plan to adopt ASU 2016-02 on a modified retrospective basis on its adoption date of January 1, 2019 and elect the package of practical expedients upon transition. As we continue to evaluate the impact of the adoption of these standards, we anticipate recognition of additional assets and corresponding liabilities related to leases on our consolidated balance sheets.

Accounting Standards Update 2016-13

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses of Financial Instruments. The standard changes the methodology for measuring credit losses on financial instruments and the timing of when such losses are recorded. The ASU is effective for annual periods beginning after December 15, 2019 with early adoption permitted. We are currently evaluating the impact this standard will have on our consolidated financial statements.

Accounting Standards Update 2017-04

In January 2017, the FASB issued ASU No. 2017-04, Intangibles – Goodwill and Other (Topic 350), which simplifies the test for goodwill impairment by eliminating a previous requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge. The ASU is effective for annual periods beginning after December 15, 2019 with early adoption permitted. The adoption is not expected to have a material impact on our consolidated financial statements.

Accounting Standards Update 2018-13

In August 2018, the FASB issued ASU No. 2018-13, Fair Value Measurement (Topic 820), that eliminates, adds and modifies certain disclosure requirements of fair value measurements. Entities will no longer be required to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, but public companies will be required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements. The ASU is effective for annual periods beginning after December 15, 2019 with early adoption permitted. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

Accounting Standards Update 2018-15

In August 2018, the FASB issued ASU No. 2018-15, Intangibles – Goodwill and Other –Internal-Use Software (Subtopic 350-40). This ASU requires a customer in a cloud computing arrangement (i.e. hosting arrangement) that is a service contract to follow the internal-use software guidance in ASC 350-40 to determine which implementation costs to capitalize as assets or expense as incurred. ASC 350-40 requires that certain costs incurred during the application development stage be capitalized and other costs incurred during the preliminary project and post-implementation stages be expensed as incurred. The ASU is effective for annual periods beginning after December 15, 2019 with early adoption permitted. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

Accounting Standards Update 2016-18

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force). This ASU requires that the reconciliation of the beginning-of-period and end-of-period amounts shown in the statement of cash flows include cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. The amendment in this update is applied using a retrospective transition method to each period presented. The ASU is effective for annual periods beginning after December 15, 2017. We adopted ASU 2016-18 on January 1, 2018 and have presented comparable prior period cash, cash equivalents and restricted cash balances in the consolidated statements of cash flows reflecting the retrospective impact of this ASU. See Note 3.

2. Fair Value Measurements

We measure fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The accounting standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

- Level 1—Observable inputs, such as quoted prices in active markets for identical assets or liabilities;
- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities; therefore, requiring an entity to develop its own valuation techniques and assumptions.

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain assets or liabilities within the fair value hierarchy.

The carrying amounts of cash equivalents, accounts and other receivables, accounts payable and accrued liabilities are considered reasonable estimates of their respective fair value because of their short-term nature.

As of September 30, 2018, we measured the fair value of our \$7.0 million payment to Merck Sharpe & Dohme Corp., which is due in the first quarter of 2020, based on Level 3 inputs due to the use of unobservable inputs that cannot be corroborated by observable market data. We estimated the fair value of the liability using a discounted cash flow technique using the effective interest rate on our term loan. The liability had a fair value of \$6.2 million as of September 30, 2018.

Recurring Fair Value Measurements

The following table represents the fair value hierarchy for our financial assets (cash equivalents and marketable securities) measured at fair value on a recurring basis (in thousands):

	Level 1	Level 2	Level 3	Total
September 30, 2018				
Money market funds	\$ 22,697	\$ -	\$ -	\$ 22,697
U.S. treasuries	-	37,176	-	37,176
U.S. government agency securities	-	45,259	-	45,259
Corporate debt securities	-	70,574	-	70,574
Total	<u>\$ 22,697</u>	<u>\$ 153,009</u>	<u>\$ -</u>	<u>\$ 175,706</u>
December 31, 2017				
Money market funds	\$ 22,543	\$ -	\$ -	\$ 22,543
U.S. treasuries	-	45,534	-	45,534
U.S. government agency securities	-	86,820	-	86,820
Corporate debt securities	-	32,916	-	32,916
Total	<u>\$ 22,543</u>	<u>\$ 165,270</u>	<u>\$ -</u>	<u>\$ 187,813</u>

Money market funds are highly liquid investments and are actively traded. The pricing information on these investment instruments is readily available and can be independently validated as of the measurement date. This approach results in the classification of these securities as Level 1 of the fair value hierarchy.

U.S. treasuries, U.S. government agency securities and corporate debt securities are measured at fair value using Level 2 inputs. We review trading activity and pricing for these investments as of each measurement date. When sufficient quoted pricing for identical securities is not available, we use market pricing and other observable market inputs for similar securities obtained from various third party data providers. These inputs represent quoted prices for similar assets in active markets or these inputs have been derived from observable market data. This approach results in the classification of these securities as Level 2 of the fair value hierarchy.

There were no transfers between Level 1 and Level 2 during the nine months ended September 30, 2018.

3. Cash, Cash Equivalents, Restricted Cash and Marketable Securities

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheet that sum to the total of the same amounts shown in the condensed consolidated statements of cash flows:

	September 30, 2018	December 31, 2017
Cash and cash equivalents	\$ 38,712	\$ 26,584
Restricted cash	622	629
Total cash, cash equivalents and restricted cash shown in the condensed consolidated statements of cash flows	<u>\$ 39,334</u>	<u>\$ 27,213</u>

Due to the adoption of ASU 2016-18, we have presented below, comparable prior period cash, cash equivalents and restricted cash balances as presented in the condensed consolidated statement of cash flows:

	<u>September 30, 2017</u>	<u>December 31, 2016</u>
Cash and cash equivalents	\$ 20,096	\$ 24,289
Restricted cash	626	602
Total cash, cash equivalents and restricted cash shown in the condensed consolidated statements of cash flows	<u>\$ 20,722</u>	<u>\$ 24,891</u>

Restricted cash balances relate to certificates of deposit issued as collateral to certain letters of credit issued as security to our lease arrangements. See Note 6.

Cash, cash equivalents and marketable securities consist of the following (in thousands):

	<u>Amortized Cost</u>	<u>Unrealized Gains</u>	<u>Unrealized Losses</u>	<u>Estimated Fair Value</u>
September 30, 2018				
Cash and cash equivalents:				
Cash	\$ 4,515	\$ -	\$ -	\$ 4,515
Money market funds	22,697	-	-	22,697
U.S. treasuries	11,500	-	-	11,500
Total cash and cash equivalents	<u>38,712</u>	<u>-</u>	<u>-</u>	<u>38,712</u>
Marketable securities available-for-sale:				
U.S. treasuries	25,694	-	(18)	25,676
U.S. government agency securities	45,329	-	(70)	45,259
Corporate debt securities	70,580	2	(8)	70,574
Total marketable securities available-for-sale	<u>141,603</u>	<u>2</u>	<u>(96)</u>	<u>141,509</u>
Total cash, cash equivalents and marketable securities	<u>\$ 180,315</u>	<u>\$ 2</u>	<u>\$ (96)</u>	<u>\$ 180,221</u>
December 31, 2017				
Cash and cash equivalents:				
Cash	\$ 4,041	\$ -	\$ -	\$ 4,041
Money market funds	22,543	-	-	22,543
Total cash and cash equivalents	<u>26,584</u>	<u>-</u>	<u>-</u>	<u>26,584</u>
Marketable securities available-for-sale:				
U.S. treasuries	45,559	-	(25)	45,534
U.S. government agency securities	86,860	-	(40)	86,820
Corporate debt securities	32,931	-	(15)	32,916
Total marketable securities available-for-sale	<u>165,350</u>	<u>-</u>	<u>(80)</u>	<u>165,270</u>
Total cash, cash equivalents and marketable securities	<u>\$ 191,934</u>	<u>\$ -</u>	<u>\$ (80)</u>	<u>\$ 191,854</u>

The maturities of our marketable securities available-for-sale are as follows (in thousands):

	<u>September 30, 2018</u>	
	<u>Amortized Cost</u>	<u>Estimated Fair Value</u>
Mature in one year or less	\$ 141,603	\$ 141,509
Mature after one year through two years	-	-
	<u>\$ 141,603</u>	<u>\$ 141,509</u>

There were no realized gains or losses from the sale of marketable securities during the nine months ended September 30, 2018 and 2017.

We have classified our entire investment portfolio as available-for-sale and available for use in current operations and accordingly have classified all investments as short-term. Available-for-sale securities are carried at fair value based on inputs that are observable, either directly or indirectly, such as quoted market prices for similar securities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the securities, with unrealized gains and losses included in accumulated other comprehensive loss in stockholders' equity. Realized gains and losses and declines in value, if any, judged to be other than temporary on available-for-sale securities are included in interest income or expense. The cost of securities sold is based on the specific identification method. Management assesses whether declines in the fair value of investment securities are other than temporary. In determining whether a decline is other than temporary, management considers the following factors:

- Whether the investment has been in a continuous realized loss position for over 12 months;
- the duration to maturity of our investments;
- our intention and ability to hold the investment to maturity and if it is not more likely than not that we will be required to sell the investment before recovery of the amortized cost bases;
- the credit rating, financial condition and near-term prospects of the issuer; and
- the type of investments made.

To date, there have been no declines in fair value that have been identified as other than temporary.

4. Inventories

The following table presents inventories (in thousands):

	September 30, 2018	December 31, 2017
Raw materials	\$ 5,487	\$ -
Work-in-process	6,356	312
Finished goods	609	-
Total	<u>\$ 12,452</u>	<u>\$ 312</u>

5. Intangible Assets

Intangible assets are related to certain capitalized milestone and sublicense payments. The following table presents intangible assets (in thousands):

	September 30, 2018	December 31, 2017
Intangible assets	\$ 23,773	\$ 2,500
Less accumulated amortization	(9,732)	(1,194)
Total	<u>\$ 14,041</u>	<u>\$ 1,306</u>

We recorded \$3.8 million and \$8.5 million as cost of sales – amortization of intangible assets for the three and nine months ended September 30, 2018, respectively. See Note 7.

6. Commitments and Contingencies

We lease our facilities in Berkeley, California (“Berkeley Lease”), Emeryville, California and Düsseldorf, Germany.

On September 17, 2018, we entered into an Office/Laboratory Lease (“Lease”) for office and laboratory space located at 5959 Horton Street, Emeryville, California (“Premises”). Under the terms of the Lease, we will lease approximately 75,662 square feet in the Premises (“Rented Area”) at the rate of \$4.75 (“Base Rate”) multiplied by the Rented Area, paid on a monthly basis, starting on the earlier of our commencement of our business operations at the Premises or April 1, 2019 (“Commencement Date”). The Base Rate is subject to scheduled annual increases, and we are also responsible for certain operating expenses and taxes throughout the life of the Lease. In connection with the Lease, we are entitled to a tenant improvement allowance of up to \$8.3 million. The Lease has an initial term of 12 years, following the Commencement Date with an option to extend the lease for two successive five-year terms.

In connection with our execution of the Lease, on September 17, 2018, we entered into a Lease Termination Agreement to terminate the Berkeley Lease effective as of the date we vacate the Berkeley premises. The rent payable for the Berkeley Lease is subject to a “hold-over” increase should we not vacate prior to July 31, 2019.

Total net rent expense related to our operating leases for the three month periods ended September 30, 2018 and 2017, was \$0.8 million and \$0.7 million, respectively. Total net rent expense related to our operating leases for the nine month periods ended September 30, 2018 and 2017, was \$2.2 million and \$1.7 million, respectively. Deferred rent was \$1.1 million and \$0.6 million as of September 30, 2018 and December 31, 2017, respectively.

In February 2018, we entered into a \$175.0 million term loan agreement. Borrowings under the term loan agreement in the amount of \$101.2 million is payable at maturity on December 31, 2023, unless earlier prepaid. See Note 8.

In February 2018, we entered into a sublicense agreement with Merck Sharpe & Dohme Corp. Under the agreement, we are required to make future payments of \$7.0 million each in both 2019 and 2020. See Note 7.

We have entered into material long-term commitments with commercial manufacturers for the supply of HEPLISAV-B and SD-101. To the extent these long-term commitments are non-cancelable, they are reflected in the table below.

Future payments under the term loan agreement, sublicense agreement, minimum payments under the non-cancelable portion of our operating leases and non-cancelable purchase commitments at September 30, 2018, are as follows (in thousands):

Years ending December 31,	
2018 (remaining)	\$ 6,492
2019	15,211
2020	12,264
2021	5,151
2022	5,220
Thereafter	148,752
Total	\$ 193,090

In addition to the non-cancelable commitments included above, we have entered into contractual arrangements that obligate us to make payments to the contractual counterparties upon the occurrence of future events. In addition, in the normal course of operations, we have entered into license and other agreements and intend to continue to seek additional rights relating to compounds or technologies in connection with our discovery, manufacturing and development programs. Under the terms of the agreements, we may be required to pay future up-front fees, milestones and royalties on net sales of products originating from the licensed technologies, if any, or other payments contingent upon the occurrence of future events that cannot reasonably be estimated.

We rely on and have entered into agreements with research institutions, contract research organizations and clinical investigators as well as clinical and commercial material manufacturers. These agreements are terminable by us upon written notice. Generally, we are liable only for actual effort expended by the organizations at any point in time during the contract through the notice period.

From time to time, we may be involved in claims, suits, and proceedings arising from the ordinary course of our business, including actions with respect to intellectual property claims, commercial claims, and other matters. Such claims, suits, and proceedings are inherently uncertain and their results cannot be predicted with certainty. Regardless of the outcome, such legal proceedings can have an adverse impact on us because of legal costs, diversion of management resources, and other factors. In addition, it is possible that a resolution of one or more such proceedings could result in substantial damages, fines, penalties or orders requiring a change in our business practices, which could in the future materially and adversely affect our financial position, financial statements, results of operations, or cash flows in a particular period.

On September 7, 2016, we entered into a Stipulation of Settlement to settle the case entitled In re Dynavax Technologies Securities Litigation filed in 2013. The settlement, which was approved by the U.S. District Court for the Northern District of California on February 6, 2017, provided for a payment of \$4.1 million by us and results in a dismissal and release of all claims against all defendants, including us. The settlement was paid by our insurers in February 2017.

In conjunction with a financing arrangement with Symphony Dynamo, Inc. and Symphony Dynamo Holdings LLC (“Holdings”) in November 2009, we agreed to make contingent cash payments to Holdings equal to 50% of the first \$50 million from any upfront, pre-commercialization milestone or similar payments received by us from any agreement with any third party with respect to the development and/or commercialization of cancer and hepatitis C therapies originally licensed to Symphony Dynamo, Inc., including SD-101. We have made no payments and have not recorded a liability as of September 30, 2018.

7. Collaborative Research, Development and License Agreements

AstraZeneca

Pursuant to a research collaboration and license agreement with AstraZeneca AB (“AstraZeneca”), as amended, we discovered and performed initial clinical development of AZD1419, a TLR9 agonist product candidate for the treatment of asthma. In June 2016, all of our remaining performance obligations under our agreement with AstraZeneca were completed.

Under the terms of the agreement, as amended, we are eligible to receive up to approximately \$100 million in additional milestone payments, based on the achievement of certain development and regulatory objectives. Additionally, upon commercialization of AZD1419, we are eligible to receive tiered royalties ranging from the mid to high single-digits based on product sales of any products originating from the collaboration. We have the option to co-promote in the United States products arising from the collaboration, if any. AstraZeneca has the right to sublicense its rights upon our prior consent.

Absent early termination, the agreement will expire when all of AstraZeneca’s payment obligations expire. AstraZeneca has the right to terminate the agreement at any time upon prior written notice and either party may terminate the agreement early upon written notice if the other party commits an uncured material breach of the agreement.

Merck, Sharp & Dohme Corp.

In February 2018, we entered into a Sublicense Agreement (the “Sublicense Agreement”) with Merck Sharpe & Dohme Corp. (the “Sublicensor”). The Sublicense Agreement grants us, under certain non-exclusive U.S. patent rights controlled by the Sublicensor which relate to recombinant production of hepatitis B surface antigen, the right to manufacture, use, offer for sale, sell and import HEPLISAV-B in the United States and includes the right to grant further sublicenses. Under the terms of the Sublicense Agreement, we are obligated to pay \$21.0 million in three installments. The first installment of \$7.0 million was paid in February 2018 and the remaining two payments of \$7.0 million each are due in the first quarter of each of 2019 and 2020. The payments in 2019 and 2020 are classified on the condensed consolidated balance sheets as other current liabilities and other long-term liabilities, respectively. In February 2018, we recorded \$19.8 million as an intangible asset. At September 30, 2018, the intangible asset balance was \$14.0 million, net. See Note 5. The agreement continues in effect through April 2020, at which time the license becomes perpetual, irrevocable, fully paid-up and royalty free.

GlaxoSmithKline Biologicals SA

On July 12, 2018, we entered into a sublicense agreement with GlaxoSmithKline Biologicals SA (“GSK”). The GSK sublicense agreement grants us, under certain non-exclusive U.S. patent rights controlled by GSK, the right to manufacture, use, offer to sell, sell and import HEPLISAV-B in the United States and includes the right to grant further sublicenses. In consideration, we paid a \$1.5 million license fee to GSK in July 2018 and recorded this payment as an intangible asset. At September 30, 2018, the intangible asset has been fully amortized. See Note 5. In addition, we were obligated to pay GSK, royalties of 13% of net sales of HEPLISAV-B from December 1, 2017 through July 31, 2018 (“Royalty Term”). For the three months ended September 30, 2018, we recorded \$0.2 million of royalties in cost of sales – product in the condensed consolidated statements of operations.

Coley Pharmaceutical Group, Inc.

In June 2007, we entered into a license agreement with Coley Pharmaceutical Group, Inc. (“Coley”), under which Coley granted us a non-exclusive, royalty bearing license to patents, with the right to grant sublicenses for HEPLISAV-B (the “Coley Agreement”). We met one of the regulatory milestones upon FDA approval of HEPLISAV-B in November 2017 and paid \$2.5 million in January 2018 to Coley which is recorded as an intangible asset on the condensed consolidated balance sheets. See Note 5. The Coley Agreement terminated in February 2018, at which time the license became a perpetual, irrevocable, fully paid-up and royalty-free license. As of September 30, 2018, the \$2.5 million intangible asset has been fully amortized.

8. Long-Term Debt

On February 20, 2018, we entered into a \$175.0 million term loan agreement (“Loan Agreement”) with CRG Servicing LLC. The Loan Agreement provides for a \$175.0 million term loan facility, \$100.0 million of which was borrowed at closing (“Initial Term Loan”) and, subject to the satisfaction of certain market capitalization and other borrowing conditions, up to an additional \$75.0 million is available for borrowing at our option on or before July 17, 2019 (together with the Initial Term Loan, the “Term Loans”). Net proceeds from the Initial Term Loan were \$99.0 million. The Term Loans under the Loan Agreement bear interest at a rate equal to 9.5% per annum. At September 30, 2018, the effective interest rate was 10.1%. At our option, until September 30, 2023, a portion of the interest payments may be paid in kind, and thereby added to the principal. Through September 30, 2018, a portion of our interest was paid in kind, which increased the principal amount of the Term Loans to \$101.2 million. The Term Loans have a maturity date of December 31, 2023, unless earlier prepaid. The Term Loans and paid-in-kind interest will be entirely payable at maturity.

The obligations under the Loan Agreement are secured, subject to customary permitted liens and other agreed upon exceptions, by a perfected security interest in (i) all tangible and intangible assets of the Company and any future subsidiary guarantors, except for certain customary excluded property, and (ii) all of the capital stock owned by the Company and such future subsidiary guarantors (limited, in the case of the stock of certain non-U.S. subsidiaries of the Company and certain U.S. subsidiaries substantially all of whose assets consist of equity interests in non-U.S. subsidiaries, to 65% of the capital stock of such subsidiaries, subject to certain exceptions). The obligations under the Loan Agreement will be guaranteed by each of the Company's future direct and indirect subsidiaries (other than certain non-U.S. subsidiaries of the Company and certain U.S. subsidiaries substantially all of whose assets consist of equity interests in non-U.S. subsidiaries, subject to certain exceptions). The Loan Agreement contains customary covenants and requires us to comply with a \$15.0 million daily minimum combined cash and investment balance covenant and an annual revenue requirement starting in 2019 for sales of HEPLISAV-B.

The Term Loans may be prepaid by us at any time. If the Term Loans are prepaid prior to the second anniversary of the initial borrowing date, we are subject to a repayment premium of up to 7.0% of the principal amount prepaid, depending on the date of prepayment.

We recorded \$2.6 million and \$6.2 million of interest expense related to the Initial Term Loan during the three and nine months ended September 30, 2018, respectively.

9. Revenue Recognition

Our source of product revenue for nine months ended September 30, 2018, consists of sales of HEPLISAV-B in the U.S. The following table summarizes balances and activity in each of the product revenue allowance and reserve categories for the nine months ended September 30, 2018 (in thousands):

	Chargebacks, discounts and other fees	Returns	Total
Balance at December 31, 2017	\$ -	\$ -	\$ -
Provision related to current period sales	1,849	249	2,098
Credit or payments made during the period	(739)	-	(739)
Balance at September 30, 2018	<u>\$ 1,110</u>	<u>\$ 249</u>	<u>\$ 1,359</u>

At September 30, 2018, reserves for chargebacks and discounts totaling \$0.9 million were recorded as reductions of accounts receivable while the remaining reserves balances totaling \$0.5 million were recorded as accrued liabilities in the condensed consolidated balance sheets.

10. Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common shares outstanding during the period and giving effect to all potentially dilutive common shares using the treasury-stock method. For purposes of this calculation, outstanding options and stock awards are considered to be potentially dilutive common shares and are only included in the calculation of diluted net loss per share when their effect is dilutive. Stock options and stock awards totaling approximately 12,892,000 and 6,120,000 shares of common stock as of September 30, 2018 and 2017, respectively, were excluded from the calculation of diluted net loss per share for the three and nine months ended September 30, 2018 and 2017, because the effect of their inclusion would have been anti-dilutive. For periods in which we have a net loss and no instruments are determined to be dilutive, such as the three and nine months ended September 30, 2018 and 2017, basic and diluted net loss per share are the same.

11. Common Stock

Common Stock Outstanding

As of September 30, 2018, there were 62,691,478 shares of our common stock outstanding.

12. Equity Plans and Stock-Based Compensation

On May 31, 2018, our stockholders approved the 2018 Equity Incentive Plan (the “2018 EIP”). The 2018 EIP is intended to be the successor to and continuation of the Dynavax Technologies Corporation 2011 Equity Incentive Plan (the “2011 EIP”). The aggregate number of shares of our common stock that may be issued under the 2018 EIP (subject to adjustment for certain changes in capitalization) is comprised of the sum of (i) 5,000,000 newly reserved shares of common stock, (ii) 140,250 unallocated shares of common stock remaining available for grant under the 2011 EIP as of May 31, 2018, and (iii) 7,477,619 shares subject to outstanding stock awards granted under the 2011 EIP and the Dynavax Technologies Corporation 2017 Inducement Award Plan that may become available from time to time as set forth in the 2018 EIP.

Option activity under our stock-based compensation plans during the nine months ended September 30, 2018 was as follows (in thousands except per share amounts):

	Shares Underlying Outstanding Options (in thousands)	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2017	3,555	\$ 19.56		
Options granted	2,386	16.56		
Options exercised	(40)	11.95		
Options cancelled:				
Options forfeited (unvested)	(139)	13.89		
Options expired (vested)	(79)	30.61		
Balance at September 30, 2018	5,683	\$ 18.33	5.76	\$ 1,448
Vested and expected to vest at September 30, 2018	5,422	\$ 18.41	5.72	\$ 1,419
Exercisable at September 30, 2018	2,766	\$ 20.01	5.14	\$ 927

Restricted stock unit activity under our stock-based compensation plans during the nine months ended September 30, 2018 was as follows (in thousands except per share amounts):

	Number of Shares (In thousands)	Weighted-Average Grant-Date Fair Value
Non-vested as of December 31, 2017	2,443	\$ 6.01
Granted	452	16.04
Vested	(1,049)	5.91
Forfeited	(51)	7.79
Non-vested as of September 30, 2018	1,795	\$ 8.54

The aggregate intrinsic value of the restricted stock units outstanding as of September 30, 2018, based on our stock price on that date was \$22.3 million. Fair value of restricted stock units is determined at the date of grant using our closing stock price.

As of September 30, 2018, approximately 151,000 shares underlying stock options and approximately 12,500 restricted stock unit awards with performance-based vesting criteria were outstanding. Vesting criteria for 12,500 of the awards with performance-based vesting criteria were not probable as of September 30, 2018. We recognized stock-based compensation expense for awards with performance-based vesting criteria of \$0.4 million and \$1.1 million for the three month and nine month periods ended September 30, 2018, respectively.

Under our stock-based compensation plans, option awards generally vest over a three or four-year period contingent upon continuous service, and expire seven to ten years from the date of grant (or earlier upon termination of continuous service). The fair value-based measurement of each option is estimated on the date of grant using the Black-Scholes option valuation model.

The fair value-based measurements and weighted-average assumptions used in the calculations of these measurements are as follows:

	Stock Options		Stock Options		Employee Stock Purchase Plan	
	Three Months Ended		Nine Months Ended		Nine Months Ended	
	September 30,		September 30,		September 30,	
	2018	2017	2018	2017	2018	2017
Weighted-average fair value	\$ 9.36	\$ 8.11	\$ 10.91	\$ 4.73	\$ 8.30	\$ 3.05
Risk-free interest rate	2.8%	1.9%	2.6%	1.9%	2.4%	1.0%
Expected life (in years)	4.5	4.5	4.5	4.5	1.3	1.2
Volatility	0.9	0.9	0.9	0.9	1.1	1.0

Compensation expense is based on awards ultimately expected to vest and reflects estimated forfeitures. The components of stock-based compensation expense were (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
	2018	2017	2018	2017
Research and development	\$ 2,332	\$ 1,973	\$ 7,194	\$ 5,707
Selling, general and administrative	2,976	1,687	8,561	5,137
Cost of sales - product	443	-	1,085	-
Inventory	295	-	295	-
Total	\$ 6,046	\$ 3,660	\$ 17,135	\$ 10,844

As of September 30, 2018, the total unrecognized compensation cost related to non-vested equity awards including all awards with time-based vesting amounted to \$31.2 million, which is expected to be recognized over the remaining weighted-average vesting period of 2 years. Additionally, as of September 30, 2018, the total unrecognized compensation cost related to equity awards with performance-based vesting criteria amounted to \$0.7 million.

Employee Stock Purchase Plan

The 2014 Employee Stock Purchase Plan, as amended, (the "Purchase Plan") provides for the purchase of common stock by eligible employees and became effective on May 28, 2014. On May 31, 2018, our stockholders approved an amendment to the Purchase Plan to increase the aggregate number of shares of common stock authorized for issuance by 600,000. The purchase price per share is the lesser of (i) 85% of the fair market value of the common stock on the commencement of the offer period (generally, the sixteenth day in February or August) or (ii) 85% of the fair market value of the common stock on the exercise date, which is the last day of a purchase period (generally, the fifteenth day in February or August). For the nine months ended September 30, 2018, employees have acquired 125,193 shares of our common stock under the Purchase Plan and 573,034 shares of our common stock remained available for future purchases under the Purchase Plan.

13. Restructuring

In January 2017, we implemented organizational restructuring and cost reduction plans to align around our immuno-oncology business while allowing us to advance HEPLISAV-B through the FDA review and approval process. To achieve these cost reductions, we suspended manufacturing activities, commercial preparations and other long term investment related to HEPLISAV-B and reduced our global workforce by approximately 40 percent. In the first quarter of 2017 we recorded charges of \$2.8 million related to severance, other termination benefits and outplacement services. All of the \$2.8 million was paid in 2017.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management’s Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements that involve a number of risks and uncertainties. Our actual results could differ materially from those indicated by forward-looking statements as a result of various factors, including but not limited to, the period for which we estimate our cash resources are sufficient, the availability of additional funds, as well as those set forth under “Risk Factors” and those that may be identified from time to time in our reports and registration statements filed with the Securities and Exchange Commission.

The following discussion and analysis is intended to provide an investor with a narrative of our financial results and an evaluation of our financial condition and results of operations. This discussion should be read in conjunction with the unaudited Condensed Consolidated Financial Statements and related Notes included in Item 1 of this Quarterly Report on Form 10-Q and the Consolidated Financial Statements and related Notes and Management’s Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for the year ended December 31, 2017.

Overview

We are a fully-integrated biopharmaceutical company focused on leveraging the power of the body’s innate and adaptive immune responses through toll-like receptor (“TLR”) stimulation. Our first commercial product, HEPLISAV-B® (Hepatitis B Vaccine (Recombinant), Adjuvanted), was approved by the United States Food and Drug Administration (“FDA”) in November 2017 for prevention of infection caused by all known subtypes of hepatitis B virus in adults age 18 years and older. We commenced commercial shipments of HEPLISAV-B in January 2018 and deployed our field sales force in late February 2018. Our development efforts are primarily focused on stimulating the innate immune response to treat cancer in combination with other immunomodulatory agents.

Our lead investigational immuno-oncology product is SD-101. SD-101 is currently being evaluated in a Phase 2 clinical study in melanoma and in head and neck squamous cell carcinoma. We are conducting a research and clinical program intended to assess potential efficacy of SD-101 in a range of tumors and in combination with a range of treatments, including checkpoint inhibitors and other therapies.

Our second immuno-oncology product candidate is DV281, a novel investigational TLR9 agonist designed specifically for focused delivery to primary lung tumors and lung metastases as an inhaled aerosol. In October 2017, we announced initiation of dosing in a Phase 1b study of inhaled DV281, in combination with anti-PD-1 therapy, in patients with non-small cell lung cancer.

In addition to the research programs we are conducting and product candidates we are developing, we discovered and licensed to AstraZeneca AB (“AstraZeneca”) an inhaled TLR agonist, AZD1419, which is being developed by AstraZeneca for the treatment of asthma pursuant to a collaboration and license agreement. AstraZeneca initiated a Phase 2a trial in 2016.

Prior to 2018, our revenues consisted of amounts earned from collaborations, grants and fees from services and licenses. Product revenue will depend on our ability to successfully market HEPLISAV-B and our product candidates, if they are approved.

We expect to incur significant expenses and operating losses for the foreseeable future as we continue to invest in commercialization of HEPLISAV-B, clinical trials and other development, manufacturing and regulatory activities for our immuno-oncology product candidates and discovery research and development. Until we can generate a sufficient amount of revenue from product sales, we will need to finance our operations through strategic alliance and licensing arrangements and/or future public or private debt and equity financings. Adequate financing may not be available to us on acceptable terms, or at all. If adequate funds are not available when needed, we may need to delay, reduce the scope of or put on hold one or more programs while we seek strategic alternatives, which could have an adverse impact on our ability to achieve our intended business objectives.

Our ability to raise additional capital in the equity and debt markets, should we choose to do so, is dependent on a number of factors, including, but not limited to, the market demand for our common stock, which itself is subject to a number of development and business risks and uncertainties, our creditworthiness and the uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us. Raising additional funds through the issuance of equity or debt securities could result in dilution to our existing stockholders, increased fixed payment obligations, or both. In addition, these securities may have rights senior to those of our common stock and could include covenants that would restrict our operations.

Critical Accounting Policies and the Use of Estimates

The accompanying discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements and the related disclosures, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the balance sheet dates and the reported amounts of revenues and expenses for the periods presented. On an ongoing basis, we evaluate our estimates, assumptions and judgments described below that have the greatest potential impact on our condensed consolidated financial statements, including those related to revenue recognition, research and development activities and stock-based compensation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Accounting assumptions and estimates are inherently uncertain and actual results may differ materially from these estimates under different assumptions or conditions.

Revenue Recognition

On January 1, 2018, we adopted Accounting Standards Codification, (“ASC”) 606, Revenue from Contracts with Customers, using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Under the modified retrospective method, results for the reporting period beginning January 1, 2018 are presented under ASC 606, while the cumulative effect of initially applying the guidance is reflected as an adjustment to the opening balance of retained earnings at January 1, 2018. Adoption of this ASU did not have a material impact on our consolidated financial statements as there were no remaining performance obligations under our license and collaboration agreements as of the adoption date.

While results for reporting periods beginning after January 1, 2018 are presented under ASC 606, prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior period. The accounting policy for revenue recognition for periods prior to January 1, 2018 is described in Note 1 of the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2017.

Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. We only apply the five-step model to contracts when it is probable that we will collect the consideration we are entitled to in exchange for the goods or services we transfer to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, we assess the goods or services promised within each contract and determine those that are performance obligations, and assess whether each promised good or service is distinct. We then recognize as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Product Revenue, Net

We sell our product to a limited number of wholesalers and specialty distributors in the U.S. (collectively, our “Customers”). Revenues from product sales are recognized when we have satisfied our performance obligation, which is the transfer of control of our product upon delivery to the Customer. The timing between the recognition of revenue for product sales and the receipt of payment is not significant. Because our standard credit terms are short-term and we expect to receive payment in less than one-year, there is no financing component on the related receivables. Overall, product revenue, net, reflects our best estimates of the amount of consideration to which we are entitled based on the terms of the contract. The amount of variable consideration is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur in a future period. If our estimates differ significantly from actuals, we will record adjustments that would affect product revenue, net in the period of adjustment.

Reserves for Variable Consideration

Revenues from product sales are recorded at the net sales price, which includes estimates of variable consideration such as product returns, chargebacks, discounts, rebates and other fees that are offered within contracts between us and our Customers, healthcare providers, and others relating to our product sales. We estimate variable consideration using either the most likely amount method or the expected value method, depending on the type of variable consideration and what method better predicts the amount of consideration we expect to receive. We take into consideration relevant factors such as industry data, current contractual terms, available information about Customers' inventory, resale and chargeback data and forecasted customer buying and payment patterns, in estimating each variable consideration. The variable consideration is recorded at the time product sales is recognized, resulting in a reduction in product revenue and a reduction in accounts receivable (if the Customer offsets the amount against its accounts receivable) or as an accrued liability (if we pay the amount through our accounts payable process). Variable consideration requires significant estimates, judgment and information obtained from external sources. The amount of variable consideration is included in the net sales price only to the extent that it is probable that a significant reversal in the amount of the cumulative revenue recognized will not occur in a future period. If our estimates differ significantly from actuals, we will record adjustments that would affect product revenue, net in the period of adjustment.

Product Returns: Consistent with industry practice, we offer our Customers a limited right of return based on the product's expiration date for product that has been purchased from us. We estimate the amount of our product sales that may be returned by our Customers and record this estimate as a reduction of revenue in the period the related product revenue is recognized. We consider several factors in the estimation of potential product returns including expiration dates of the product shipped, the limited product return rights, available information about Customers' inventory, shelf life of the product and other relevant factors.

Chargebacks: Our Customers subsequently resell our product to healthcare providers. In addition to distribution agreements with Customers, we enter into arrangements with healthcare providers that provide for chargebacks and discounts with respect to the purchase of our product. Chargebacks represent the estimated obligations resulting from contractual commitments to sell product to qualified healthcare providers at prices lower than the list prices charged to Customers who directly purchase the product from us. Customers charge us for the difference between what they pay for the product and the ultimate selling price to the qualified healthcare providers. These reserves are established in the same period that the related revenue is recognized, resulting in a reduction of product revenue and accounts receivable. Chargeback amounts are determined at the time of resale to the qualified healthcare provider by Customers, and we issue credits for such amounts generally within a few weeks of the Customer's notification to us of the resale. Reserves for chargebacks consists of credits that we expect to issue for units that remain in the distribution channel inventories at each reporting period end that we expect will be sold to qualified healthcare providers, and chargebacks for units that our Customers have sold to healthcare providers, but for which credits have not been issued.

Trade Discounts and Allowances: We provide our Customers with discounts which include early payment incentives that are explicitly stated in our contracts, and are recorded as a reduction of revenue in the period the related product revenue is recognized.

Distribution Fees: Distribution fees include fees paid to certain Customers for sales order management, data and distribution services. Distribution fees are recorded as a reduction of revenue in the period the related product revenue is recognized.

Results of Operations

Revenues

Prior to 2018, revenues consisted of amounts earned from collaborations, grants and fees from services and licenses and royalty payments. Commercial shipments of HEPLISAV-B commenced in January 2018, resulting in product revenue in the three and nine months ended September 30, 2018.

The following is a summary of our revenues (in thousands, except for percentages):

Revenues:	Three Months Ended September 30,		Increase (Decrease) from 2017 to 2018		Nine Months Ended September 30,		Increase (Decrease) from 2017 to 2018	
	2018	2017	\$	%	2018	2017	\$	%
Product revenue, net	\$ 1,461	\$ -	\$ 1,461	NM	\$ 2,880	\$ -	\$ 2,880	NM
Grant revenue	-	53	(53)	NM	-	306	(306)	NM
Total revenues	<u>\$ 1,461</u>	<u>\$ 53</u>	<u>\$ 1,408</u>	NM	<u>\$ 2,880</u>	<u>\$ 306</u>	<u>\$ 2,574</u>	NM

Product revenue, net, reflects sales of HEPLISAV-B of \$1.5 million and \$2.9 million for the three and nine months ended September 30, 2018, respectively. We commenced commercial shipments of HEPLISAV-B in January 2018 and deployed our field sales force in February 2018. Initial efforts focused on ensuring market access to enable healthcare providers to purchase HEPLISAV-B, including obtaining payer coverage and securing contracts with group purchasing organizations, physician buying groups, and federal government entities. Sales efforts are focused on advancing HEPLISAV-B through the complex approval and procurement processes in large institutional accounts across the country. During the third quarter of 2018, several key accounts made positive decisions to make HEPLISAV-B available in their networks. Based on progress in obtaining these approvals and our experience with the often protracted time required for implementation and procurement by customers, we expect quarterly sales will increase in the fourth quarter and next year as healthcare providers complete their reviews and operational activities required to switch to the new 2-dose regimen provided by HEPLISAV-B.

Revenue from product sales is recorded at the net sales price which includes estimates of product returns, chargebacks, discounts, rebates and other fees. Overall, product revenue, net, reflects our best estimates of the amount of consideration to which we are entitled based on the terms of the contract. Actual amounts of consideration ultimately received may differ from our estimates. If actual results in the future vary from our estimates, we will adjust these estimates, which would affect net product revenue and earnings in the period such variances become known.

Cost of Sales - Product

Cost of sales - product reflects costs of \$3.9 million and \$9.3 million for the three and nine months ended September 30, 2018, respectively. Included in cost of sales - product are inventory reserves and certain fill, finish and overhead costs for HEPLISAV-B incurred after FDA approval. Cost of sales-product also includes costs at our manufacturing facility in Dusseldorf which were previously included in research and development expense. These charges are a result of costs associated with resuming operating activities at the Dusseldorf manufacturing facility after receiving regulatory approval of pre-filled syringes (“PFS”) of HEPLISAV-B in late March 2018. We expect these charges to cost of sales to diminish in future periods as we resume ongoing commercial production at our Dusseldorf facility. Prior to FDA approval of HEPLISAV-B vials, all costs related to the manufacturing of HEPLISAV-B, that could potentially be available to support the commercial launch of our products, were charged to research and development expense in the period incurred as there was no alternative future use. We expect to use inventory previously expensed to research and development over approximately the next six months. Excluding the costs associated with resuming operating activities in Dusseldorf, we expect our cost of sales of HEPLISAV-B to increase as a percentage of net sales in future periods as we produce and then sell inventory that reflects the full cost of manufacturing the product.

Cost of Sales - Amortization of Intangible Assets

Cost of sales - amortization of intangible assets of \$3.8 million and \$8.5 million for three and nine months ended September 30, 2018, respectively, consists of amortization of the intangible asset recorded as a result of a regulatory milestone and sublicense fees to Coley Pharmaceutical Group, Inc. (“Coley”), Merck Sharpe & Dohme Corp. (“Merck”) and GlaxoSmithKline Biologicals SA (“GSK”) upon or after FDA approval of HEPLISAV-B in November 2017. At September 30, 2018, the intangible assets related to Coley and GSK have been fully-amortized. At September 30, 2018, the intangible asset related to Merck of \$14.0 million has an estimated remaining useful life through the patent expiration date in April 2020.

Research and Development Expense

Research and development expense consists, primarily, of compensation and related personnel costs (which include benefits, recruitment, travel and supply costs), outside services, allocated facility costs and non-cash stock-based compensation. Outside services consist of costs associated with clinical development, preclinical discovery and development, regulatory filings and research, including fees and expenses incurred by contract research organizations, clinical study sites, and other service providers and costs of manufacturing product candidates prior to approval. Prior to FDA approval, we recorded costs of acquiring, developing and manufacturing HEPLISAV-B as research and development expense. The following is a summary of our research and development expense (in thousands, except for percentages):

	Three Months Ended September 30,		Increase (Decrease) from 2017 to 2018		Nine Months Ended September 30,		Increase (Decrease) from 2017 to 2018	
	2018	2017	\$	%	2018	2017	\$	%
Research and Development:								
Compensation and related personnel costs	\$ 7,025	\$ 6,587	\$ 438	7%	\$ 23,136	\$ 21,305	\$ 1,831	9%
Outside services	6,435	5,705	730	13%	17,103	14,331	2,772	19%
Facility costs	1,028	2,152	(1,124)	(52)%	4,626	6,233	(1,607)	(26)%
Non-cash stock-based compensation	2,332	1,973	359	18%	7,194	5,707	1,487	26%
Total research and development	\$ 16,820	\$ 16,417	\$ 403	2%	\$ 52,059	\$ 47,576	\$ 4,483	9%

Compensation and related personnel costs and non-cash stock-based compensation increased in the three and nine month periods ended September 30, 2018 due to an overall increase in headcount to support the ongoing development of SD-101 and earlier stage oncology programs. Outside services increased, primarily, due to the ongoing development of SD-101.

For the three and nine month periods ended September 30, 2018 and as a result of the regulatory approval of PFS of HEPLISAV-B in late March 2018, costs incurred at our Dusseldorf facility to resume operating activities were charged to cost of sales – product, while costs incurred to manufacture HEPLISAV-B for commercial sale were accounted for as inventory. For the comparative prior year periods, facility costs, which include an overhead allocation of occupancy and related expenses, included full operating costs of our Dusseldorf facility.

We expect research and development spending to increase in connection with the discovery, development and manufacturing of our product candidates, particularly SD-101 and DV281.

Selling, General and Administrative Expense

Selling, general and administrative expense consists primarily of compensation and related costs for our commercial support personnel, medical education professionals and personnel in executive and other administrative functions, including legal, finance and information technology; costs for outside services such as costs for sales and marketing, post-marketing studies of HEPLISAV-B, accounting, commercial development, consulting, business development, investor relations and insurance; legal costs that include corporate and patent-related expenses; allocated facility costs and non-cash stock-based compensation.

The following is a summary of our selling, general and administrative expense (in thousands, except for percentages):

	Three Months Ended September 30,		Increase (Decrease) from 2017 to 2018		Nine Months Ended September 30,		Increase (Decrease) from 2017 to 2018	
	2018	2017	\$	%	2018	2017	\$	%
Selling, General and Administrative:								
Compensation and related personnel costs	\$ 4,132	\$ 1,771	\$ 2,361	133%	\$ 11,695	\$ 5,771	\$ 5,924	103%
Outside services	7,539	1,574	5,965	379%	24,071	4,336	19,735	455%
Legal costs	458	718	(260)	(36)%	2,336	2,063	273	13%
Facility costs	683	277	406	147%	1,669	804	865	108%
Non-cash stock-based compensation	2,976	1,687	1,289	76%	8,561	5,137	3,424	67%
Total selling, general and administrative	\$ 15,788	\$ 6,027	\$ 9,761	162%	\$ 48,332	\$ 18,111	\$ 30,221	167%

For both the three and nine months ended September 30, 2018 compared to 2017, compensation and related personnel costs and non-cash stock-based compensation increased, primarily, due to an increase in employee headcount to support HEPLISAV-B commercial activities. Outside services increased due to an overall increase in HEPLISAV-B sales, marketing and commercial activities, including full-deployment of a contract sales force, post-marketing studies and consultants for commercial development services. We currently expect to convert from a contract sales force to a sales organization directly employed by us during the second quarter of 2019 and expect the conversion to be approximately cash neutral. Facility costs, which includes an overhead allocation primarily comprised of occupancy and related expenses, increased due to an overall higher facility-related costs and an increase in headcount.

Restructuring

In January 2017, we implemented organizational restructuring and cost reduction plans to align around our immuno-oncology business while allowing us to advance HEPLISAV-B through the FDA review and approval process. To achieve these cost reductions, we suspended manufacturing activities, commercial preparations and other long term investment related to HEPLISAV-B and reduced our global workforce by approximately 40 percent. In the first quarter of 2017 we recorded charges of \$2.8 million related to severance, other termination benefits and outplacement services. All of the \$2.8 million was paid in 2017.

Interest Income, Interest Expense and Other Income (Expense), Net

Interest income is reported net of amortization of premiums and discounts on marketable securities and realized gains and losses on investments. Interest expense includes the stated interest and accretion of discount and end of term fee related to our long-term debt agreement entered into in February 2018. Other income (expense), net includes gains and losses on foreign currency transactions and disposal of property and equipment.

The following is a summary of our interest income, interest expense and other income (expense), net (in thousands, except for percentages):

	Three Months Ended		Increase		Nine Months Ended		Increase	
	September 30,		(Decrease) from		September 30,		(Decrease) from	
	2018	2017	\$	%	2018	2017	\$	%
Interest income	\$ 1,047	\$ 429	\$ 618	144%	\$ 2,940	\$ 809	\$ 2,131	263%
Interest expense	\$ (2,735)	\$ -	\$ 2,735	NM	\$ (6,587)	\$ -	\$ 6,587	NM
Other income (expense), net	\$ 57	\$ (166)	\$ 223	134%	\$ 75	\$ (378)	\$ 453	120%

Interest income for three and nine months ended September 30, 2018 increased due to a higher average investment balance. We began incurring interest expense for the three and nine months ended September 30, 2018 due to the \$100.0 million we borrowed on February 20, 2018 under a term loan agreement with CRG Servicing LLC. The change in other income (expense), net is primarily due to foreign currency transactions resulting from fluctuations in the value of the Euro compared to the U.S. dollar.

Liquidity and Capital Resources

As of September 30, 2018, we had \$180.2 million in cash, cash equivalents and marketable securities. Since our inception, we have relied primarily on the proceeds from public and private sales of our equity securities, borrowings, government grants and revenues from collaboration agreements to fund our operations. Our funds are currently invested in money market funds, U.S. treasuries, U.S. government agency securities and corporate debt securities.

In February 2018, we entered into a \$175.0 million term loan agreement (“Loan Agreement”) with CRG Servicing LLC. The Loan Agreement provides for a \$175.0 million term loan facility, \$100.0 million of which was borrowed at closing and, subject to the satisfaction of certain market capitalization and other borrowing conditions, up to an additional \$75.0 million is available for borrowing at our option on or before July 17, 2019. The loans have a maturity date of December 31, 2023, unless prepaid earlier.

During the nine months ended September 30, 2018, we used \$97.7 million of cash for our operations primarily due to our net loss of \$118.9 million, of which \$29.0 million consisted of non-cash charges such as stock-based compensation, amortization of intangible assets, depreciation and amortization, non-cash interest expense and accretion and amortization on marketable securities. By comparison, during the nine months ended September 30, 2017, we used \$59.8 million of cash for our operations primarily due to a net loss of \$67.7 million, of which \$13.0 million consisted of non-cash charges such as stock-based compensation, depreciation and amortization, reversal of deferred rent upon lease amendment and accretion and amortization on marketable securities. We also recorded charges of \$2.8 million primarily related to severance, resulting from implementation of organizational restructuring and cost reduction plans in January 2017. Cash used in our operations during the first nine months of 2018 increased by \$37.9 million. Net cash

used in operating activities is impacted by changes in our operating assets and liabilities due to timing of cash receipts and expenditures.

During the nine months ended September 30, 2018, net cash provided by investing activities was \$11.1 million compared to \$114.8 million in net cash used in investing activities for the nine months ended September 30, 2017. Cash provided by investing activities during the first nine months of 2018 included \$24.9 million of net proceeds from maturities of marketable securities compared with \$114.4 million of net purchases of marketable securities during the first nine months of 2017. Cash provided by investing activities during the first nine months of 2018 also included \$11.0 million of milestone and sublicense payments to Coley, Merck and GSK. Cash used in net purchases of property plant and equipment increased by \$2.5 million during the first nine months of 2018 compared to the same period in 2017. The increase is, primarily, due to the installation of facility improvements and purchases of laboratory equipment at our corporate headquarters and purchases of manufacturing equipment for our facility in Dusseldorf.

During the nine months ended September 30, 2018 and 2017, net cash provided by financing activities was \$99.1 million and \$169.8 million, respectively. Cash provided by financing activities in the first nine months of 2018 included net proceeds of \$99.0 million from the Loan Agreement. Cash provided by financing activities in the first nine months of 2017 included net proceeds of \$169.2 million from the issuance of common stock under our underwritten public offering in August 2017 and our 2015 at market issuance sales agreement.

We expect to incur significant expenses and operating losses for the foreseeable future as we continue to invest in commercialization of HEPLISAV-B, clinical trials and other development, manufacturing and regulatory activities for our immuno-oncology product candidates and discovery research and development. We expect that cash used in operating and investing activities may fluctuate in future periods as a result of a number of factors, including fluctuations in our operating results, working capital requirements and capital deployment decisions, including costs to construct tenant improvements at our new office and laboratory location. We currently estimate that we have sufficient cash resources to meet our anticipated cash needs through at least the next 12 months based on cash and cash equivalents and marketable securities on hand as of September 30, 2018, together with anticipated revenues and the remaining \$75.0 million we currently intend to borrow by the end of the second quarter of 2019 under the Loan Agreement. We anticipate quarterly HEPLISAV-B sales will increase next year and that the product should reach break-even on an operating basis by the fourth quarter of 2019. Until we can generate a sufficient amount of revenue from product sales, we will need to finance our operations through strategic alliance and licensing arrangements and/or future public or private debt and equity financings. Adequate financing may not be available to us on acceptable terms, or at all. If adequate funds are not available when needed, we may need to delay, reduce the scope of or put on hold one or more programs while we seek strategic alternatives. Our ability to raise additional capital in the equity and debt markets, should we choose to do so, is dependent on a number of factors, including, but not limited to, the market demand for our common stock, which itself is subject to a number of development and business risks and uncertainties, our creditworthiness and the uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us. Raising additional funds through the issuance of equity or debt securities could result in dilution to our existing stockholders, increased fixed payment obligations, or both. In addition, these securities may have rights senior to those of our common stock and could include covenants that would restrict our operations.

Contractual Obligations

On September 17, 2018, we entered into an Office/Laboratory Lease (“Lease”), for an aggregate of 75,662 square feet of office and laboratory space located at 5959 Horton Street, Emeryville, California. We are obligated to make lease payments totaling \$61.2 million over the Lease term. We are also obligated to pay for operating expenses and taxes. In connection with our execution of the Lease, we entered into a Lease Termination Agreement to terminate the lease of our Berkeley, California office and laboratory space effective as of the date we vacate the Berkeley premises. See Note 6 in the accompanying Notes to the Condensed Consolidated Financial Statements for a description of the Lease and Lease Termination Agreement.

In February 2018, we entered into a \$175.0 million term loan agreement. Principal amount due under the term loan agreement at September 30, 2018 is \$101.2 million payable at maturity on December 31, 2023, unless prepaid earlier.

In February 2018, we entered into a sublicense agreement with Merck Sharpe & Dohme Corp. Under the agreement, we are required to make future payments of \$7.0 million each in both 2019 and 2020.

We enter into long-term purchase commitments with commercial manufacturers for the supply of HEPLISAV-B and SD-101. To the extent these long-term commitments are non-cancelable, our total future purchase commitments at September 30, 2018 are \$9.2 million.

There were no other material changes to the contractual obligations previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017.

Off-balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined by rules enacted by the Securities and Exchange Commission and, accordingly, no such arrangements are likely to have a current or future effect on our financial position.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

During the nine months ended September 30, 2018, there were no material changes to our market risk disclosures as set forth in Part II, Item 7A, “Quantitative and Qualitative Disclosures About Market Risk” in our Annual Report on Form 10-K for the year ended December 31, 2017.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of disclosure controls and procedures

We maintain disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”)) that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Principal Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can only provide reasonable, not absolute, assurance of achieving the desired control objectives.

Based on their evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report, our management, with participation of our Chief Executive Officer and our Chief Financial Officer, concluded that our disclosure controls and procedures are effective and were operating at the reasonable assurance level to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission rules and forms.

(b) Changes in internal controls

There have been no changes in our internal controls over financial reporting as defined in Rule 13a – 15(f) under the Exchange Act during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

ITEM 1. LEGAL PROCEEDINGS

From time to time in the ordinary course of business, Dynavax receives claims or allegations regarding various matters, including employment, vendor and other similar situations in the conduct of our operations.

On November 18, 2016, two substantially similar securities class action complaints were filed in the U.S. District Court for the Northern District of California against the Company and two of its executive officers, in *Soontjens v. Dynavax Technologies Corporation et. al.*, (“*Soontjens*”) and *Shumake v. Dynavax Technologies Corporation et al.*, (“*Shumake*”). The *Soontjens* complaint alleges that between March 10, 2014 and November 11, 2016, the Company and certain of its executive officers violated Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder, in connection with statements related to HEPLISAV-B. The *Shumake* complaint alleges violations of the same statutes related to the same subject, but between January 7, 2016 and November 11, 2016. The plaintiffs in both actions are seeking an unspecified amount of damages and attorneys’ fees and costs. On January 17, 2017, these two actions and all related actions that subsequently may be filed in, or transferred to, the District Court were consolidated into a single case entitled *In re Dynavax Technologies Securities Litigation*. On January 31, 2017, the court appointed lead plaintiff and lead counsel. Lead plaintiff filed a consolidated amended complaint on March 17, 2017. Defendants’ filed a motion to dismiss the consolidated amended complaint on May 1, 2017. On September 12, 2017, the District Court granted Defendants’ motion to dismiss, but gave lead plaintiff an opportunity to amend his complaint. On October 3, 2017, plaintiff filed a Second Amended Complaint. Defendants filed a motion to dismiss the Second Amended Complaint on November 3, 2017. A hearing on Defendants’ motion to dismiss was set for January 23, 2018, but the hearing was vacated by the Court on January 18, 2018. On April 24, 2018, the Court reset the hearing on Defendants’ motion to dismiss for May 8, 2018. On June 4, 2018, Defendants’ motion to dismiss was granted and the case was dismissed with prejudice. On July 3, 2018, lead plaintiff filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit. Lead plaintiff’s opening appellate brief is currently due on November 13, 2018.

On January 18, 2017, the Company was made aware of a derivative complaint that a purported stockholder of the Company intended to file in the Superior Court of California for the County of Alameda against certain of the Company’s current executive officers and directors (the “*MacDonald* Complaint”). The *MacDonald* Complaint was apparently filed on February 16, 2017, although the Company was not provided a copy of it until March 15, 2017. Additionally, on January 19, 2017, another purported stockholder of the Company filed a separate derivative complaint in the Superior Court of California for the County of Alameda against the same officers and directors who were named in the *MacDonald* Complaint (the “*Shumake* Complaint”). Both complaints generally allege that the defendants caused or allowed the Company to issue materially misleading statements and/or omit material information regarding HEPLISAV-B and the clinical trial related thereto and otherwise mismanaged the clinical trial related to HEPLISAV-B. The complaints seek unspecified monetary damages, including restitution from defendants, corporate governance changes, attorneys’ fees and costs, and other relief. Defendants were never served with the *Shumake* Complaint. On June 23, 2017, the plaintiff voluntarily dismissed the *Shumake* Complaint without prejudice. Defendants filed a demurrer in the *MacDonald* case seeking to dismiss the lawsuit on June 19, 2017. On July 26, 2017, pursuant to a stipulation between the parties, the state court stayed the *MacDonald* case pending the final resolution of the 2016 securities class action, *In re Dynavax Technologies Securities Litigation*.

On December 1, 2017, the purported stockholder of the Company who filed, and then later voluntarily dismissed, the state court *Shumake* Complaint, filed a substantially similar purported stockholder derivative complaint in the U.S. District Court for the Northern District of California (the “*Federal Shumake* Action”). On February 13, 2018, pursuant to a stipulation between the parties, the District Court stayed the *Federal Shumake* Action pending the final resolution of the 2016 securities class action, *In re Dynavax Technologies Securities Litigation*.

Both the *Federal Shumake* Action and *MacDonald* action remain stayed pending the appeal of the 2016 securities class action, *In re Dynavax Technologies Securities Litigation*, to the Ninth Circuit.

The Company believes that it has meritorious defenses and intends to defend these lawsuits vigorously. However, the lawsuits are subject to inherent uncertainties, the actual costs may be significant, and we may not prevail. We believe we are entitled to coverage under our relevant insurance policies with respect to these lawsuits, but coverage could be denied or prove to be insufficient.

ITEM 1A. RISK FACTORS

Various statements in this Quarterly Report on Form 10-Q are forward-looking statements concerning our future efforts to obtain regulatory approval, timing of development activities, commercialize approved products, expenses, revenues, liquidity and cash needs, as well as our plans and strategies. These forward-looking statements are based on current expectations and we assume no obligation to update this information. Numerous factors could cause our actual results to differ significantly from the results described in these forward-looking statements, including the following risk factors. We have marked with an asterisk (*) those risks described below that reflect material changes from, or additions to, the risks described under Part 1, Item 1A "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2017 that was filed with the Securities and Exchange Commission on March 8, 2018.

Risks Related to our Business and Capital Requirements

We have launched HEPLISAV-B in the United States and we have personnel experienced with marketing drug products, but we have not previously commercialized a product. While we have recently established full commercial capabilities, given that this is our first marketed product, there is a risk that we may not achieve and sustain commercial success for HEPLISAV-B.

We have established sales, marketing and distribution capabilities and commercialized HEPLISAV-B in the U.S. Successful commercialization of HEPLISAV-B will require significant resources and time and, while Dynavax personnel are experienced with respect to the marketing of prescription drug products, because HEPLISAV-B is the company's first marketed product, there is a risk that we may not successfully commercialize HEPLISAV-B. In addition, successful commercialization of HEPLISAV-B will require that we negotiate and enter into contracts with wholesalers, distributors, group purchasing organizations, and other parties, and that we maintain those contractual relationships. There is a risk that we may not complete or maintain or timely enter into all of these important contracts and thus our commercialization may not be successful. Moreover, we expect that significant resources will need to be invested in order to successfully market, sell and distribute HEPLISAV-B for use with diabetes patients. The Centers for Disease Control and Prevention ("CDC") and the CDC's Advisory Committee on Immunization Practices ("ACIP") recommend that patients with diabetes, one of our targeted patient populations, receive hepatitis B vaccinations and while the potential number of recommended vaccine adult patients is larger, we are unable to predict how many of those may receive HEPLISAV-B.

In addition to the risk with building and maintaining our own commercial capabilities and with contracting, other factors that may inhibit our efforts to successfully commercialize HEPLISAV-B include:

- whether we are able to recruit and retain adequate numbers of effective sales and marketing personnel;
- whether we are able to access key healthcare providers to discuss HEPLISAV-B;
- whether we can compete successfully as a new entrant in established distribution channels for vaccine products; and
- whether we will maintain sufficient funding to cover the costs and expenses associated with creating and sustaining a capable sales and marketing organization and related commercial infrastructure.

If we are not successful, we may be required to collaborate or partner with a third party pharmaceutical or biotechnology company with existing products. To the extent we determine to rely on other pharmaceutical or biotechnology companies or third party contract organizations with established sales, marketing and distribution capabilities to market HEPLISAV-B, we will need to establish and maintain collaboration arrangements, and we may not be able to enter into these arrangements on acceptable terms or for a period of time that may be required to establish HEPLISAV-B in the market. To the extent that we enter into co-promotion or other arrangements, any revenues we receive will depend upon the efforts of third parties, which may not be successful and are only partially in our control. In that event, our product revenues may be lower than if we marketed and sold our products directly with the highest priority.

If we, or our partners, if any, are not successful in setting our marketing, pricing and reimbursement strategies, recruiting and maintaining effective sales and marketing personnel or in building and maintaining the infrastructure to support commercial operations, we will have difficulty successfully commercializing HEPLISAV-B, which would adversely affect our business and financial condition. To the extent our commercialization of HEPLISAV-B is not successful and we must partner with and rely upon the efforts of other pharmaceutical or biotechnology companies with established sales, marketing and distribution systems to market HEPLISAV-B, we will need to establish and maintain partnership arrangements, and we may not be able to enter into these arrangements on acceptable terms or at all. To the extent that we enter into co-promotion or other arrangements, certain revenues we receive will depend upon the efforts of third parties, which may not be successful and are only partially in our control.

We face uncertainty regarding coverage, pricing and reimbursement and the practices of third party payors, which may make it difficult or impossible to sell our products or product candidates on commercially reasonable terms.

In both domestic and foreign markets, our ability to achieve profitability will depend in part on the negotiation of a favorable price and the availability of appropriate reimbursement from third party payors, in particular for HEPLISAV-B, where existing products are already marketed. In the U.S., pricing for hepatitis B vaccines is currently stable and reimbursement is favorable as private and public payors recognize the value of prophylaxis in this setting given the high costs of potential morbidity and mortality, and we have achieved coverage with most third party payors. However, there is a risk that some payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include HEPLISAV-B. Thus, there can be no assurance that HEPLISAV-B will achieve and sustain stable pricing and favorable reimbursement. Our ability to successfully obtain and retain market share and achieve and sustain profitability will be significantly dependent on the market's acceptance of a price for HEPLISAV-B sufficient to achieve profitability, and future acceptance of such pricing.

Third party payors are increasingly challenging the price and cost-effectiveness of medical products and services, and pricing and reimbursement decisions may not allow our future products to compete effectively with existing competitive products. Because we intend to offer products, if approved, that involve new technologies and new approaches to treating disease, the willingness of third party payors to reimburse for our products is uncertain. We will have to charge a price for our products that is sufficient to enable us to recover our considerable investment in product development and our operating costs. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to achieve profitability, and such unavailability could harm our future prospects and reduce our stock price.

Also, there has been heightened governmental scrutiny recently in the U.S. over pharmaceutical pricing practices in light of the rising cost of prescription drugs and biologics. Such scrutiny has resulted in several recent Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. At the federal level, the Trump administration's budget proposal for fiscal year 2019 contains further drug price control measures that could be enacted during the 2019 budget process or in other future legislation, including, for example, measures to permit Medicare Part D plans to negotiate the price of certain drugs under Medicare Part B, to allow some states to negotiate drug prices under Medicaid, and to eliminate cost sharing for generic drugs for low-income patients. While any proposed measures will require authorization through additional legislation to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs. At the state level, legislatures have become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, and restrictions on certain product access. In some cases, such legislation and regulations have been designed to encourage importation from other countries and bulk purchasing. There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future or the effect any such initiatives may have on our business.

We are dependent on the commercial success of HEPLISAV-B and the success of our development stage products including SD-101, which depend on regulatory approval. Failure to maintain or obtain regulatory approvals could require us to discontinue operations.

Beyond HEPLISAV-B, our pipeline consists of early stage oncology product candidates, and early stage development is inherently risky. Even if we have early indications of success in clinical development, in order to be able to market our products in the U.S., we must obtain approval from the FDA, and corresponding applications to foreign regulatory agencies must be approved by those agencies before we may sell the product in their respective geographic area. Obtaining FDA marketing approval and corresponding foreign applications is highly uncertain and we may fail to obtain approval. The FDA review process is extensive, lengthy, expensive and uncertain, and the FDA or foreign regulatory agencies may delay, limit or deny approval of our application for many reasons, including: whether the data from our clinical trials or the development program are satisfactory to the FDA or foreign regulatory agency; disagreement with the number, design, size, conduct or implementation of our clinical trials or proposed post-marketing study, or a conclusion that the data fails to meet statistical or clinical significance or safety requirements; acceptability of data generated at our clinical trial sites that are monitored by third party contract research organizations ("CROs"); and deficiencies in our manufacturing processes or facilities or those of our third party contract manufacturers and suppliers, if any. For example, we received Complete Response Letters from the FDA for HEPLISAV-B in 2013 and 2016 before obtaining approval in November 2017.

In February 2014, we announced our withdrawal of our Marketing Authorization Application ("MAA") for approval of HEPLISAV-B to the EMA, in part because the required time frame for response under the MAA procedure was not long enough to permit the collection of the necessary clinical data. Our ability to market HEPLISAV-B outside the United States, such as in Europe, is dependent upon our receiving regulatory approval, which can be costly and time consuming, and there is a risk that one or more regulatory bodies may require that we conduct additional clinical trials and/or take other measures which will take time and require that we incur expense. In addition, there is the risk that we may not receive approval in one or more jurisdictions.

In addition, we obtain guidance from regulatory authorities on certain aspects of our clinical development activities and seek to comply with written guidelines provided by the authorities. These discussions and written guidelines are not binding obligations on the part of the regulatory authorities and the regulatory authorities may require additional patient data or studies to be conducted. Regulatory authorities may revise or retract previous guidance during the course of a clinical trial or after completion of the trial. The authorities may also disqualify a clinical trial from consideration in support of approval of a potential product if they deem the guidelines have not been met. The FDA or foreign regulatory agencies may determine our clinical trials or other data regarding safety, efficacy or consistency of manufacture or compliance with Good Manufacturing Practice (“GMP”) regulations are insufficient for regulatory approval.

We are subject to ongoing FDA post-marketing obligations concerning HEPLISAV-B, which may result in significant additional expense, and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with HEPLISAV-B.

Our HEPLISAV-B regulatory approval is subject to certain post-marketing obligations and commitments to the FDA. We must conduct an observational comparative study of HEPLISAV-B to another hepatitis B vaccine to assess occurrence of acute myocardial infarction; must conduct an observational surveillance study to evaluate the incidence of new onset immune-mediated diseases, herpes zoster and anaphylaxis; and must establish a pregnancy registry to provide information on outcomes following pregnancy exposure to HEPLISAV-B. These studies will require significant effort and resources, and failure to timely conduct these studies to the satisfaction of FDA could result in withdrawal of our Biologics License Application (“BLA”) approval. The results of post-marketing studies may also result in additional warnings or precautions for the HEPLISAV-B label or expose additional safety concerns that may result in product liability and withdrawal of the product from the market, which would have a material adverse effect on our business, results of operations, financial condition and prospects.

In addition, the manufacturing processes, labelling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for HEPLISAV-B are subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with current GMPs, Good Clinical Practice (“GCP”), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use (“ICH”) guidelines, and Good Laboratory Practices. If we are not able to meet and maintain regulatory compliance, we may lose marketing approval and be required to withdraw our product. As noted in the preceding paragraph, withdrawal would have a material adverse effect on our business.

We have incurred net losses in each year since our inception and anticipate that we will continue to incur significant losses for the foreseeable future unless we can successfully commercialize HEPLISAV-B, and if we are unable to achieve and sustain profitability, the market value of our common stock will likely decline.

We have generated limited revenue from the sale of products and have incurred losses in each year since we commenced operations in 1996. Our net losses for the nine months ended September 30, 2018 and 2017 were \$118.9 million and \$67.7 million, respectively. As of September 30, 2018, we had an accumulated deficit of \$1,026 million.

With the approval of HEPLISAV-B and our investment in the launch and commercialization of this product in the U.S. in addition to our investment in our oncology product candidates, we expect to continue incurring significant expenses and increasing operating losses for the foreseeable future. Our expenses will also increase substantially as we establish and maintain commercial infrastructure while continuing to invest in the clinical development of our oncology pipeline, reinstate and invest in manufacturing and supply chain commitments to maintain commercial supply of HEPLISAV-B and continue to hire commercial, clinical, manufacturing and operational personnel in order to build our business. Due to the numerous risks and uncertainties associated with developing and commercializing vaccine and pharmaceutical products, we are unable to predict the extent of any future losses or when, if ever, we will become profitable.

If we are unable to achieve and sustain profitability, we will need to continue to raise funds through strategic alliance and licensing arrangements or the capital markets, including debt or equity or other structured finance mechanisms, in order to sustain our business and operations. As a result of those activities, the market value of our common stock may be negatively impacted and be volatile. Adequate financing may not be available to us on acceptable terms, or at all. If adequate funds are not available when needed, we may need to delay, reduce the scope of or put on hold one or more programs while we seek strategic alternatives.

Our ability to raise additional capital in the equity and debt markets, should we choose to do so, is dependent on a number of factors, including, but not limited to, the market demand for our common stock, which itself is subject to a number of development and business risks and uncertainties, our creditworthiness and the uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us. Raising additional funds through the issuance of equity or debt securities could result in dilution to our existing stockholders, increases fixed payment obligations, or both. In addition, these securities may have rights senior to those of our common stock and could include covenants that would restrict our operations.

Until we are able to generate significant revenues or achieve profitability through product sales, we will require substantial additional capital to finance our operations and continue development of our product candidates.

We expect to incur significant expenses and operating losses for the foreseeable future as we continue to invest in (a) commercialization of HEPLISAV-B, (b) clinical trials and other development, manufacturing and regulatory activities for our immuno-oncology product candidates and (c) discovery research and development. Until we can generate a sufficient amount of revenue, if any, we will need to finance our operations through strategic alliance and licensing arrangements and/or future public or private debt and equity financings. Adequate financing may not be available to us on acceptable terms, or at all. If adequate funds are not available when needed, we may need to delay, reduce the scope of or put on hold one or more programs while we seek strategic alternatives.

Our ability to raise additional capital in the equity and debt markets, should we choose to do so, is dependent on a number of factors, including, but not limited to, the market demand for our common stock, which itself is subject to a number of development and business risks and uncertainties, our creditworthiness and the uncertainty that we would be able to raise such additional capital at a price or on terms that are favorable to us. Raising additional funds through the issuance of equity or debt securities could result in dilution to our existing stockholders, increased fixed payment obligations, or both. In addition, these securities may have rights senior to those of our common stock and could include covenants that would restrict our operations.

The FDA may require more clinical trials for our development stage product candidates than we currently expect or are conducting before granting regulatory approval, if regulatory approval is granted at all. Our clinical trials may be extended, which may lead to substantial delays in the regulatory approval process for our product candidates, and would impair our ability to generate revenues.

Our registration and commercial timelines depend on further discussions with the FDA and corresponding foreign regulatory agencies and requirements and requests they may make for additional data or completion of additional clinical trials. Any such requirements or requests could:

- adversely affect our ability to timely and successfully commercialize or market these product candidates;
- result in significant additional costs;
- potentially diminish any competitive advantages for those products;
- potentially limit the markets for those products;
- adversely affect our ability to enter into collaborations or receive milestone payments or royalties from potential collaborators;
- cause us to abandon the development of the affected product candidate; or
- limit our ability to obtain additional financing on acceptable terms, if at all.

Clinical trials for our product candidates are expensive and time consuming, may involve combinations with other agents, may take longer than we expect or may not be completed at all, and their outcomes are uncertain.

Clinical trials, including post-marketing studies, to generate sufficient data to meet FDA requirements can be expensive and time consuming.

We are currently undertaking clinical trials of SD-101 and DV281, including combination studies with other oncology agents, and expect to commence clinical trials for other product candidates in our immuno-oncology pipeline in the future. Our strategy with respect to development of SD-101 and DV281 involves combination studies with other oncology agents. While we believe that this combination agent approach increases the potential for success, these clinical trials are dependent on continuing access to the other oncology agents, and for combination studies that are pursuant to a collaboration they are contingent on agreement with our combination agent study partners regarding the use of the other agents, concurrence on a protocol and supply of clinical materials. Most of our combination agent study partners, such as Merck & Co. (“Merck”), are significantly larger than we are and are conducting various other combination studies with other immuno-oncology agents and collaborators. We are not certain these clinical trials will be successful, or that even if successful we would be able to reach agreement to conduct larger, more extensive clinical trials required to achieve regulatory approval for a combination product candidate regimen. In addition, results from smaller, earlier stage clinical studies may not be representative of larger, controlled clinical trials that would be required in order to obtain regulatory approval of a product candidate or a combination of product candidates.

Each of our clinical trials requires the investment of substantial planning, expense and time and the timing of the commencement, continuation and completion of these clinical trials may be subject to significant delays relating to various causes, including scheduling conflicts with participating clinicians and clinical institutions, difficulties in identifying and enrolling participants who meet trial eligibility criteria, failure of participants to complete the clinical trial, delay or failure to obtain Institutional Review Board (“IRB”) or regulatory approval to conduct a clinical trial at a prospective site, unexpected adverse events and shortages of available drug supply. Participant enrollment is a function of many factors, including the size of the relevant population, the proximity of participants to clinical sites, the eligibility criteria for the trial, the existence of competing clinical trials and the availability of alternative or new treatments.

Failure by us or our CROs to conduct a clinical study in accordance with GCP standards and other applicable regulatory requirements could result in disqualification of the clinical trial from consideration in support of approval of a potential product.

We are responsible for conducting our clinical trials consistent with GCP standards and for oversight of our vendors to ensure that they comply with such standards. We depend on medical institutions and CROs to conduct our clinical trials in compliance with GCP. To the extent that they fail to comply with GCP standards, fail to enroll participants for our clinical trials, or are delayed for a significant time in the execution of our trials, including achieving full enrollment, we may be affected by increased costs, program delays or both, which may harm our business.

Clinical trials must be conducted in accordance with FDA or other applicable foreign government guidelines and are subject to oversight by the FDA, other foreign governmental agencies and IRBs at the medical institutions where the clinical trials are conducted. In addition, clinical trials must be conducted with supplies of our product candidates produced under GMP and other requirements in foreign countries, and may require large numbers of participants.

The FDA or other foreign governmental agencies or we ourselves could delay, suspend or halt our clinical trials of a product candidate for numerous reasons, including with respect to our product candidates and those of our partners in combination agent studies due to:

- deficiencies in the trial design;
- deficiencies in the conduct of the clinical trial including failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols;
- deficiencies in the clinical trial operations or trial sites resulting in the imposition of a clinical hold;
- a product candidate may have unforeseen adverse side effects, including fatalities, or a determination may be made that a clinical trial presents unacceptable health risks;
- the time required to determine whether a product candidate is effective may be longer than expected;
- fatalities or other adverse events arising during a clinical trial that may not be related to clinical trial treatments;
- a product candidate or combination study may appear to be no more effective than current therapies;
- the quality or stability of a product candidate may fail to conform to acceptable standards;
- the inability to produce or obtain sufficient quantities of a product candidate to complete the trials;
- our inability to reach agreement on acceptable terms with prospective CROs and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- our inability to obtain IRB approval to conduct a clinical trial at a prospective site;
- the inability to obtain regulatory approval to conduct a clinical trial;
- lack of adequate funding to continue a clinical trial, including the occurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of our CROs and other third parties;
- the inability to recruit and enroll individuals to participate in clinical trials for reasons including competition from other clinical trial programs for the same or similar indications; or
- the inability to retain participants who have initiated a clinical trial but may withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up.

In addition, we may experience significant setbacks in advanced clinical trials, even after promising results in earlier trials, such as unexpected adverse events that occur when our product candidates are combined with other therapies and drugs or given to larger patient populations, which often occur in later-stage clinical trials, or less favorable clinical outcomes. Moreover, clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals.

Third party organizations such as patient advocacy groups and parents of trial participants may demand additional clinical trials or continued access to drug even if our interpretation of clinical results received thus far leads us to determine that additional clinical trials or continued access are unwarranted. Any disagreement with patient advocacy groups or parents of trial participants may require management's time and attention and may result in legal proceedings being instituted against us, which could be expensive, time-consuming and distracting, and may result in delay of the program. Negative or inconclusive results or adverse medical events, including participant fatalities that may be attributable to our product candidates, during a clinical trial may necessitate that it be redesigned, repeated or terminated. Further, some of our clinical trials may be overseen by a Data Safety Monitoring Board ("DSMB"), and the DSMB may determine to delay or suspend one or more of these trials due to safety or futility findings based on events occurring during a clinical trial. Any such delay, suspension, termination or request to repeat or redesign a trial could increase our costs and prevent or significantly delay our ability to commercialize our product candidates.

HEPLISAV-B, SD-101 and most of our earlier stage programs rely on oligonucleotide TLR agonists. Serious adverse event data relating to TLR agonists may require us to reduce the scope of or discontinue our operations.

Most of our programs, including HEPLISAV-B and SD-101, incorporate Toll-Like Receptor ("TLR") 9 agonist CpG oligonucleotides. If any of our product candidates in clinical trials or similar products from competitors produce serious adverse event data, we may be required to delay, discontinue or modify many of our clinical trials or our clinical trial strategy. If a safety risk based on mechanism of action or the molecular structure were identified, it may hinder our ability to develop our product candidates or enter into potential collaboration or commercial arrangements. Rare diseases and a numerical imbalance in cardiac adverse events have been observed in patients in our clinical trials. If adverse event data are found to apply to our TLR agonist and/or inhibitor technology as a whole, we may be required to significantly reduce or discontinue our operations.

We rely on our facility in Düsseldorf, Germany and third parties to supply materials or perform processes necessary to manufacture our product candidates. We rely on a limited number of suppliers to produce the oligonucleotides we require for development and commercialization. Additionally, we have limited experience in manufacturing our product candidates in commercial quantities. With respect to HEPLISAV-B, while we have reinitiated manufacturing and have a substantial quantity of available product, we intend to switch to a pre-filled syringe presentation of the vaccine and our ability to meet future demand will depend on our ability to timely manufacture that presentation of HEPLISAV-B in compliance with GMP.*

We rely on our facility in Düsseldorf and third parties to perform the multiple processes involved in manufacturing our product candidates, including HEPLISAV-B, SD-101, and DV281, certain antigens, the combination of the oligonucleotide and the antigens, and formulation, fill and finish. In connection with our restructuring in January 2017, we elected to retain, but furlough, much of the workforce in Düsseldorf supporting the manufacture of rHBsAg for HEPLISAV-B and utilize the existing stockpiled inventory of HEPLISAV-B to meet expected initial demand if the product was approved. Although we have sufficient inventory of HEPLISAV-B to launch the product and we have brought back staff at our facility in Düsseldorf that had been furloughed, hired additional staff where needed and reinstated manufacturing, there can be no assurance that we can successfully manufacture sufficient additional quantities in compliance with GMP in order to meet regulatory requirements and market demand. In addition, we have obtained FDA approval of a BLA supplement to manufacture and sell a pre-filled syringe presentation of HEPLISAV-B. Our ability to meet market demand in the future is dependent upon our timely manufacture of the pre-filled syringe presentation of HEPLISAV-B in compliance with GMP.

We have also relied on a limited number of suppliers to produce oligonucleotides for clinical trials and a single supplier to produce our adjuvant 1018 immunostimulatory sequence ("1018") for HEPLISAV-B. To date, we have manufactured only small quantities of oligonucleotides ourselves for development purposes. If we were unable to maintain our existing suppliers for 1018 and SD-101, we would have to establish an alternate qualified manufacturing capability, which would result in significant additional operating costs and delays in manufacturing HEPLISAV-B, and in developing and commercializing our product candidates. We or other third parties may not be able to produce product at a cost, quantity and quality that are available from our current third-party suppliers or at all.

In countries outside of the U.S., we may not be able to comply with ongoing and comparable foreign regulations, and our manufacturing process may be subject to delays, disruptions or quality control/quality assurance problems. Noncompliance with these regulations or other problems with our manufacturing process may limit or disrupt the commercialization of HEPLISAV-B or our other product candidates and could result in significant expense.

We are subject to ongoing FDA and foreign regulatory obligations and continued regulatory review for HEPLISAV-B and our product candidates.

With respect to HEPLISAV-B and our other product candidates in development, we and our third party manufacturers and suppliers are required to comply with applicable GMP regulations and other international regulatory requirements. The regulations require that our product candidates be manufactured and records maintained in a prescribed manner with respect to manufacturing, testing and quality control/quality assurance activities. Manufacturers and suppliers of key components and materials must be named in a BLA submitted to the FDA for any product candidate for which we are seeking FDA approval. Additionally, third party manufacturers and suppliers and any manufacturing facility must undergo a pre-approval inspection before we can obtain marketing authorization for any of our product candidates. Even after a manufacturer has been qualified by the FDA, the manufacturer must continue to expend time, money and effort in the area of production and quality control to ensure full compliance with GMP. Manufacturers are subject to regular, periodic inspections by the FDA following initial approval. Further, to the extent that we contract with third parties for the manufacture of our products, our ability to control third-party compliance with FDA requirements will be limited to contractual remedies and rights of inspection.

If, as a result of the FDA's inspections, it determines that the equipment, facilities, laboratories or processes do not comply with applicable FDA regulations and conditions of product approval, the FDA may not approve the product or may suspend the manufacturing operations. If the manufacturing operations of any of the suppliers for our product candidates are suspended, we may be unable to generate sufficient quantities of commercial or clinical supplies of product to meet market demand, which would harm our business. In addition, if delivery of material from our suppliers were interrupted for any reason, we might be unable to ship our approved product for commercial supply or to supply our products in development for clinical trials. Significant and costly delays can occur if the qualification of a new supplier is required.

Failure to comply with regulatory requirements could prevent or delay marketing approval or require the expenditure of money or other resources to correct. Failure to comply with applicable requirements may also result in warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, refusal of the government to renew marketing applications and criminal prosecution, any of which could be harmful to our ability to generate revenues and our stock price.

Any regulatory approvals that we receive for our product candidates are likely to contain requirements for post-marketing follow-up studies, which may be costly. Product approvals, once granted, may be modified based on data from subsequent studies or commercial use. As a result, limitations on labeling indications or marketing claims, or withdrawal from the market may be required if problems occur after approval and commercialization.

We may develop, seek regulatory approval for and market our product candidates outside the U.S., requiring a significant commitment of resources. Failure to successfully manage our international operations could result in significant unanticipated costs and delays in regulatory approval or commercialization of our product candidates.

We may seek to introduce certain of our product candidates, including HEPLISAV-B, in various markets outside the U.S. Developing, seeking regulatory approval for and marketing our product candidates outside the U.S. could impose substantial costs as well as burdens on our personnel resources in addition to potential diversion of management's attention from domestic operations. International operations are subject to risk, including:

- the difficulty of managing geographically distant operations, including recruiting and retaining qualified employees, locating adequate facilities and establishing useful business support relationships in the local community;
- compliance with varying international regulatory requirements, laws and treaties;
- securing international distribution, marketing and sales capabilities;
- adequate protection of our intellectual property rights;
- obtaining regulatory and pricing approvals at a level sufficient to justify commercialization;
- legal uncertainties and potential timing delays associated with tariffs, export licenses and other trade barriers;
- diverse tax consequences;
- the fluctuation of conversion rates between foreign currencies and the U.S. dollar; and
- regional and geopolitical risks.

We withdrew our MAA for HEPLISAV-B in Europe in 2014. We may not be able to provide sufficient data or respond to other comments to our previously filed MAA sufficient to obtain regulatory approval in Europe in a reasonable time period or at all.

Any failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in other jurisdictions. If we are unable to successfully manage our international operations, we may incur significant unanticipated costs and delays in regulatory approval or commercialization of our product candidates, which would impair our ability to generate revenues.

If any products we develop are not accepted by the market or if regulatory agencies limit our labeling indications, require labeling content that diminishes market uptake of our products or limits our marketing claims, we may be unable to generate significant revenues, if any.

Even if we obtain regulatory approval for our product candidates, such as the FDA approval of HEPLISAV-B in November 2017, and are able to commercialize them, our products may not gain market acceptance among physicians, patients, healthcare payors and the medical community.

The degree of market acceptance of HEPLISAV-B and any of our future approved products will depend upon a number of factors, including:

- the indication for which the product is approved and its approved labeling;
- the presence of other competing approved therapies;
- the potential advantages of the product over existing and future treatment methods;
- the relative convenience and ease of administration of the product;
- the strength of our sales, marketing and distribution support;
- the price and cost-effectiveness of the product; and
- sufficient third-party reimbursement and the willingness of patients to pay out-of-pocket in the absence of sufficient reimbursement by third-party payors.

The FDA or other regulatory agencies could limit the labeling indication for which our product candidates may be marketed or could otherwise limit marketing efforts for our products. If we are unable to achieve approval or successfully market any of our product candidates, or marketing efforts are restricted by regulatory limits, our ability to generate revenues could be significantly impaired.

A key part of our business strategy for products in development is to establish collaborative relationships to help fund development and commercialization of our product candidates. We may not succeed in establishing and maintaining collaborative relationships, which may significantly limit our ability to develop and commercialize our products successfully, if at all.

We may need to establish collaborative relationships to obtain domestic and/or international sales, marketing and distribution capabilities for those product candidates. Failure to obtain a collaborative relationship for HEPLISAV-B in markets outside the U.S. requiring extensive sales efforts, may significantly impair the potential for this product and we may be required to raise additional capital. The process of establishing and maintaining collaborative relationships is difficult, time-consuming and involves significant uncertainty, including:

- our partners may seek to renegotiate or terminate their relationships with us due to unsatisfactory clinical results, manufacturing issues, a change in business strategy, a change of control or other reasons;
- our shortage of capital resources may impact the willingness of companies to collaborate with us;
- our contracts for collaborative arrangements are terminable at will on written notice and may otherwise expire or terminate and we may not have alternative funding available;
- our partners may choose to pursue alternative technologies, including those of our competitors;
- we may have disputes with a partner that could lead to litigation or arbitration;
- we have limited control over the decisions of our partners and they may change the priority of our programs in a manner that would result in termination of the agreement or add significant delay in the partnered program;
- our ability to generate future payments and royalties from our partners depends upon the abilities of our partners to establish the safety and efficacy of our drug candidates, obtain regulatory approvals and successfully manufacture and achieve market acceptance of products developed from our drug candidates;
- we or our partners may fail to properly initiate, maintain or defend our intellectual property rights, where applicable, or a party may use our proprietary information in such a way as to invite litigation that could jeopardize or potentially invalidate our proprietary information or expose us to potential liability;

- our partners may not devote sufficient capital or resources towards our product candidates; and
- our partners may not comply with applicable government regulatory requirements.

If any collaborator fails to fulfill its responsibilities in a timely manner, or at all, our research, clinical development, manufacturing or commercialization efforts pursuant to that collaboration could be delayed or terminated, or it may be necessary for us to assume responsibility for expenses or activities that would otherwise have been the responsibility of our collaborator. If we are unable to establish and maintain collaborative relationships on acceptable terms or to successfully transition terminated collaborative agreements, we may have to delay or discontinue further development of one or more of our product candidates, undertake development and commercialization activities at our own expense or find alternative sources of capital.

Many of our competitors have greater financial resources and expertise than we do. If we are unable to successfully compete with existing or potential competitors as a result of these disadvantages, we may be unable to generate revenues and our business will be harmed.

We compete with pharmaceutical companies, biotechnology companies, academic institutions and research organizations, in developing and marketing therapies to prevent or treat cancer and infectious and inflammatory diseases. For example, HEPLISAV-B competes in the U.S. with established hepatitis B vaccines marketed by Merck and GlaxoSmithKline plc (“GSK”) and if approved outside the U.S., with vaccines from those companies as well as several additional established pharmaceutical companies.

Oncology is also a highly competitive market, with numerous biotechnology and pharmaceutical companies developing therapies for all of the targets we are pursuing. Competitors may develop more effective, more affordable or more convenient products or may achieve earlier approval or patent protection or commercialization of their products. These competitive products may render our product candidates obsolete, change the standard of care against which our products much show safety and efficacy or limit our ability to generate revenues from our product candidates.

Existing and potential competitors may also compete with us for qualified commercial, scientific and management personnel, as well as for technology that would otherwise be advantageous to our business. Our success in developing marketable products and achieving a competitive position will depend, in part, on our ability to attract and retain qualified personnel in the near-term, particularly with respect to HEPLISAV-B commercialization. If we do not succeed in attracting new personnel and retaining and motivating existing personnel, our operations may suffer and we may be unable to obtain financing, enter into collaborative arrangements, sell our product candidates or generate revenues.

The term loan agreement we entered into in February 2018 imposes significant operating and financial restrictions on us that may prevent us from pursuing certain business opportunities and restrict our ability to operate our business.

In February 2018, we entered into a term loan agreement under which we may borrow up to \$175 million, \$100 million of which was borrowed at closing. Additional amounts may be borrowed only if we meet certain requirements. The loan agreement contains covenants that restrict our ability to take various actions, including, among other things, incur additional indebtedness, pay dividends or distributions or make certain investments, create or incur certain liens, transfer, sell, lease or dispose of assets, enter into transactions with affiliates, consummate a merger or sell or other dispose of assets. The agreement also requires us to comply with a daily minimum liquidity covenant and an annual revenue requirement based on the sales of HEPLISAV-B. The agreement specifies a number of events of default, some of which are subject to applicable grace or cure periods, including, among other things, non-payment defaults, covenant defaults, cross-defaults to other material indebtedness, bankruptcy and insolvency defaults, and non-payment of material judgments.

Our ability to comply with these covenants will likely be affected by many factors, including events beyond our control, and we may not satisfy those requirements. Our failure to comply with our obligations could result in an event of default and the acceleration of our repayment obligation at a time when we may not have the cash to comply with that obligation, which could result in a seizure of most of our assets. The restrictions contained in the agreement could also limit our ability to meet capital needs or otherwise restrict our activities and adversely affect our ability to finance our operations, enter into acquisitions or to engage in other business activities that would be in our interest.

We rely on CROs, clinical sites and investigators for our clinical trials. If these third parties do not fulfill their contractual obligations or meet expected deadlines, our planned clinical trials may be delayed and we may fail to obtain the regulatory approvals necessary to commercialize our product candidates.

We rely on CROs, clinical sites and investigators for our clinical trials. If these third parties do not perform their obligations or meet expected deadlines our planned clinical trials may be extended, delayed, modified or terminated. While we maintain oversight over our clinical trials and conduct regular reviews of the data, we are dependent on the processes and quality control efforts of our third party contractors to ensure that clinical trials are conducted properly and that detailed, quality records are maintained to support the results of the clinical trials that they are conducting on our behalf. Any extension, delay, modification or termination of our clinical trials or failure to ensure adequate documentation and the quality of the results in the clinical trials could delay or otherwise adversely affect our ability to commercialize our product candidates and could have a material adverse effect on our business and operations.

As we are evolving from a company primarily involved in research and development to a company increasingly involved in commercialization, we may encounter difficulties in managing our growth and expanding our operations successfully.

As our operations expand, we expect that we will also need to manage additional relationships with various collaborative partners, suppliers and other third parties. Future growth will require more commercial and operational capabilities and impose significant additional responsibilities on our organization, in particular on management. Our future financial performance and our ability to successfully commercialize HEPLISAV-B and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we may not be able to manage our growth efforts effectively, and hire, train and integrate additional management, administrative and sales and marketing personnel, and our failure to accomplish any of these activities could prevent us from successfully growing our company.

If we fail to comply with the extensive requirements applicable to biopharmaceutical manufacturers and marketers under the healthcare fraud and abuse, anticorruption, privacy, transparency and other laws of the jurisdictions in which we conduct our business, we may be subject to significant liability.

Our activities, and the activities of our agents, including some contracted third parties, are subject to extensive government regulation and oversight both in the U.S. and in foreign jurisdictions. Our interactions with physicians and others in a position to prescribe or purchase our products are subject to a legal regime designed to prevent healthcare fraud and abuse and off-label promotion. We also are subject to laws pertaining to transparency of transfers of value to healthcare providers; privacy and data protection; compliance with industry voluntary compliance guidelines; and prohibiting the payment of bribes. Relevant U.S. laws include:

- the federal Anti-Kickback Statute, which prohibits persons from, among other things, knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce 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 the Medicare and Medicaid programs;
- federal false claims laws, including the civil False Claims Act, and civil monetary penalty law, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, claims for payment to the government or its agents that are false or fraudulent;
- the Federal Food, Drug and Cosmetic Act and governing regulations which, among other things, prohibit off-label promotion of prescription drugs;
- the federal Physician Payments Sunshine Act created under the Patient Protection and Affordable Care Act (“PPACA”) which requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services (“CMS”), information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members;
- the federal Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), which created, among other things, new federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and its implementing regulations, which imposes certain requirements relating to the privacy, security, and transmission of individually identifiable health information;

- the Foreign Corrupt Practices Act, which prohibits the payment of bribes to foreign government officials and requires that a company's books and records accurately reflect the company's transactions; and
- foreign and state law equivalents of each of the federal laws described above, such as anti-kickback and false claims laws which may apply to items or services reimbursed by state health insurance programs or any third party payor, including commercial insurers; and state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government.

The Office of Inspector General for the Department of Health and Human Services, the Department of Justice, states' Attorneys General and other governmental authorities actively enforce the laws and regulations discussed above. These entities also coordinate extensively with the FDA, using legal theories that connect violations of the Federal Food, Drug and Cosmetic Act (such as off-label promotion) to the eventual submission of false claims to government healthcare programs. Prosecution of such promotion cases under the federal civil False Claims Act provides the potential for private parties (qui tam relators, or "whistleblowers") to initiate cases on behalf of the government and provides for significantly higher penalties upon conviction.

In the U.S., pharmaceutical and biotechnology companies have been the target of numerous government prosecutions and investigations alleging violations of law, including claims asserting impermissible off-label promotion of pharmaceutical products, payments intended to influence the referral of federal or state healthcare business, submission of false claims for government reimbursement, or submission of incorrect pricing information.

Violations of any of the laws described above or any other applicable governmental regulations and other similar foreign laws may subject us, our employees or our agents to criminal and/or civil sanctions, including fines, civil monetary penalties, exclusion from participation in government healthcare programs (including Medicare and Medicaid), disgorgement, individual imprisonment, additional reporting requirements and oversight if we become subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws and the restriction or restructuring of our operations, any of which could adversely affect our ability to operate our business and our financial results. Additionally, whether or not we have complied with the law, an investigation into alleged unlawful conduct may cause us to incur significant expense, cause reputational damage, divert management time and attention, and otherwise adversely affect our business. While we have developed and instituted a corporate compliance program, we cannot guarantee that we, our employees, our consultants, contractors, or other agents are or will be in compliance with all applicable U.S. or foreign laws.

We expect there will continue to be federal and state laws and/or regulations, proposed and implemented, that could impact our operations and business. For example, the PPACA, among other things, imposes a significant annual fee on companies that manufacture or import branded prescription drug products. It also contains substantial provisions intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, and impose additional health policy reforms, any or all of which may affect our business. Some of the provisions of PPACA have yet to be fully implemented, and there have been legal and political challenges to certain aspects of PPACA. Since January 2017, President Trump has signed two executive orders and other directives designed to delay, circumvent, or loosen certain requirements mandated by PPACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of PPACA. While Congress has not passed comprehensive repeal legislation, two bills affecting the implementation of certain taxes under the PPACA have been signed into law. The Tax Cuts and Jobs Act of 2017 includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by PPACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the "individual mandate." Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain PPACA-mandated fees, including the so-called "Cadillac" tax on certain high cost employer-sponsored insurance plans, the annual fee imposed on certain health insurance providers based on market share, and the medical device excise tax on non-exempt medical devices. Further, the Bipartisan Budget Act of 2018, or the BBA, among other things, amends the PPACA, effective January 1, 2019, to increase from 50 percent to 70 percent the point-of-sale discount that is owed by pharmaceutical manufacturers who participate in Medicare Part D and close the coverage gap in most Medicare drug plans, commonly referred to as the "donut hole." Congress may consider other legislation to repeal or replace elements of PPACA. The extent to which future legislation or regulations, if any, relating to healthcare fraud and abuse laws and/or enforcement and other healthcare reform measures, may be enacted or what effect such legislation or regulation would have on our business remains uncertain.

The loss of key personnel, including our Chief Executive Officer, could delay or prevent achieving our objectives. In addition, our continued growth to support commercialization may result in difficulties in managing our growth and expanding our operations successfully.

We depend on our senior executive officers, as well as key scientific and other personnel. Our research, product development and business efforts could be adversely affected by the loss of one or more key members of our scientific or management staff, including our Chief Executive Officer. We currently have no key person insurance on any of our employees.

As our operations expand, we expect that we will need to manage additional relationships with various vendors, partners, suppliers and other third parties. Future growth will impose significant added responsibilities on members of management. Our future financial performance and our ability to successfully commercialize HEPLISAV-B and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to effectively manage our commercialization efforts, research efforts and clinical trials and hire, train and integrate additional regulatory, manufacturing, administrative, and sales and marketing personnel. We may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing our company and achieving profitability.

We face product liability exposure, which, if not covered by insurance, could result in significant financial liability.

While we have not experienced any product liability claims to date, the use of any of our product candidates in clinical trials and the sale of any approved products will subject us to potential product liability claims and may raise questions about a product's safety and efficacy. As a result, we could experience a delay in our ability to commercialize one or more of our product candidates or reduced sales of any approved product candidates. In addition, a product liability claim may exceed the limits of our insurance policies and exhaust our internal resources. We have obtained limited clinical trial liability and umbrella insurance coverage for our clinical trials. This coverage may not be adequate or may not continue to be available in sufficient amounts, at an acceptable cost or at all. While we have obtained product liability insurance coverage for HEPLISAV-B, there is a risk that this coverage may not be adequate or may not continue to be available in sufficient amounts, at an acceptable cost or at all. We also may not be able to obtain commercially reasonable product liability insurance for any product approved for marketing in the future. A product liability claim, product recalls or other claims, as well as any claims for uninsured liabilities or in excess of insured liabilities, would divert our management's attention from our business and could result in significant financial liability.

We are involved in legal actions that are expensive and time consuming, and, if resolved adversely, could harm our business, financial condition, or results of operations.

A securities class action lawsuit against us is pending and purported stockholder derivative complaints have been brought against us. Any negative outcome from such lawsuits could result in payments of monetary damages or fines, or adversely affect our products, and accordingly our business, financial condition, or results of operations could be materially and adversely affected.

There can be no assurance that a favorable final outcome will be obtained in these cases, and defending any lawsuit is costly and can impose a significant burden on management and employees. Any litigation to which we are a party may result in an onerous or unfavorable judgment that may not be reversed upon appeal or in payments of monetary damages or fines not covered by insurance, or we may decide to settle lawsuits on unfavorable terms, which could adversely affect our business, financial conditions, or results of operations.

The recently passed comprehensive tax reform bill could adversely affect our business and financial condition.

On December 22, 2017, President Trump signed into law new legislation that significantly revises the Internal Revenue Code of 1986, as amended. The newly enacted federal income tax law, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses to 80% of current year taxable income and elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the newly enacted federal tax law.

We use hazardous materials and controlled substances in our business. Any claims or liabilities relating to improper handling, storage or disposal of these materials and substances could be time consuming and costly to resolve.

Our research and product development activities involve the controlled storage, use and disposal of hazardous and radioactive materials and biological waste, and controlled substances. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these materials, substances, and certain waste products. We believe we are currently in compliance with all government permits that are required for the storage, use and disposal of these materials and controlled substances. However, we cannot eliminate the risk of accidental contamination or injury to persons or property from these materials, or that controlled substances will be accidentally stored or used in violation of relevant federal, state and local requirements. In the event of an accident related to hazardous materials or a violation of requirements pertaining to controlled substances, we could be held liable for damages, cleanup costs or penalized with fines, and this liability could exceed the limits of our insurance policies and exhaust our internal resources. We may have to incur significant costs to comply with future environmental laws and regulations, and laws and regulations pertaining to the storage and use of controlled substances.

Significant disruptions of information technology systems or breaches of data security could adversely affect our business.*

Our business is increasingly dependent on critical, complex and interdependent information technology systems, including Internet-based systems, to support business processes as well as internal and external communications. The size and complexity of our computer systems make them potentially vulnerable to breakdown, malicious intrusion and computer viruses that may result in the impairment of key business processes.

In addition, our systems are potentially vulnerable to data security breaches, whether by employees or others, that may expose sensitive data to unauthorized persons. Effective May 25, 2018, the European Union, or EU, implemented the General Data Protection Regulation (“GDPR”), a broad data protection framework that expands the scope of EU data protection law to non-European Union entities that process, or control the processing of, the personal information of EU subjects, including clinical trial data. The GDPR allows for the imposition of fines and/or corrective action on entities that improperly use or disclose the personal information of EU subjects, including through a data security breach. Accordingly, data security breaches experienced by us, our collaborators or contractors could lead to significant fines, required corrective action, loss of trade secrets or other intellectual property, or could lead to the public exposure of personally identifiable information (including sensitive personal information) of our employees, collaborators, clinical trial patients, and others. A data security breach or privacy violation that leads to disclosure or modification of or prevents access to patient information, including personally identifiable information or protected health information, could harm our reputation, compel us to comply with federal and/or state breach notification laws, subject us to mandatory corrective action, require us to verify the correctness of database contents and otherwise subject us to liability under laws and regulations that protect personal data, resulting in increased costs or loss of revenue. The GDPR imposes several requirements relating to the consent of the individuals to whom the personal data relates, the information provided to the individuals, the security and confidentiality of the personal data, data breach notification and the use of third party processors in connection with the processing of personal data. The GDPR also imposes strict rules on the transfer of personal data out of the EU to the U.S., provides an enforcement authority and imposes large penalties for noncompliance, including the potential for fines of up to €20 million or 4% of the annual global revenues of the noncompliant company, whichever is greater. The GDPR has the potential to increase our responsibility and liability in relation to personal data that we process, including in clinical trials, and we are required to put in place and maintain additional mechanisms to ensure compliance with the GDPR, which could divert management’s attention and increase our cost of doing business.

Additionally, the implementation of GDPR has led other jurisdictions to either amend, or propose legislation to amend their existing data privacy and cybersecurity laws to resemble the requirements of GDPR. For example, on June 28, 2018, California adopted the California Consumer Privacy Act of 2018 (“CCPA”). The CCPA has been characterized as the first “GDPR-like” privacy statute to be enacted in the United States because it mirrors a number of the key provisions in the GDPR. The CCPA gives California residents expanded rights to access and delete their personal information, opt out of certain personal information sharing, and receive detailed information about how their personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches that is expected to increase data breach litigation. The CCPA may increase our compliance costs and potential liability. The effective date of the CCPA is January 1, 2020, however, legislators have stated that they intend to propose amendments to the CCPA before it goes into effect. We are continuing to analyze the CCPA in order to determine its applicability and impact to our business.

If we are unable to prevent such data security breaches or privacy violations or implement satisfactory remedial measures, our operations could be disrupted, and we may suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information, including sensitive patient data. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above. Moreover, the prevalent use of mobile devices that access confidential information increases the risk of data security breaches, which could lead to the loss of confidential information, trade secrets or other intellectual property. While we have implemented security measures to protect our data security and information technology systems, such measures may not prevent such events. Such disruptions and breaches of security could have a material adverse effect on our business, financial condition and results of operations.

Risks Related to our Intellectual Property

We rely on licenses to intellectual property from third parties. Impairment of these licenses or our inability to maintain them would severely harm our business.

Our current research and development efforts depend in part upon our license arrangements for intellectual property owned by third parties. Our dependence on these licenses subjects us to numerous risks, such as disputes regarding the use of the licensed intellectual property and the creation and ownership of new discoveries under such license agreements. In addition, these license arrangements require us to make timely payments to maintain our licenses and typically contain diligence or milestone-based termination provisions. Our failure to meet any obligations pursuant to these agreements could allow our licensors to terminate our agreements or undertake other remedies such as converting exclusive to non-exclusive licenses if we are unable to cure or obtain waivers for such failures or amend such agreements on terms acceptable to us. In addition, our license agreements may be terminated or may expire by their terms, and we may not be able to maintain the exclusivity of these licenses. If we cannot obtain and maintain licenses that are advantageous or necessary to the development or the commercialization of our product candidates, we may be required to expend significant time and resources to develop or license similar technology or to find other alternatives to maintaining the competitive position of our products. If such alternatives are not available to us in a timely manner or on acceptable terms, we may be unable to continue development or commercialize our product candidates. In the absence of a current license, we may be required to redesign our technology so it does not infringe a third party's patents, which may not be possible or could require substantial funds and time.

If third parties successfully assert that we have infringed their patents and proprietary rights or challenge our patents and proprietary rights, we may become involved in intellectual property disputes and litigation that would be costly, time consuming and delay or prevent development or commercialization of our product candidates.

We may be exposed to future litigation by third parties based on claims that our product candidates or proprietary technologies infringe their intellectual property rights, or we may be required to enter into litigation to enforce patents issued or licensed to us or to determine the ownership, scope or validity of our or another party's proprietary rights, including a challenge as to the validity of our issued and pending claims. From time to time we are involved in various interference and other administrative proceedings related to our intellectual property which has caused us to incur certain legal expenses. If we become involved in any litigation and/or other significant interference proceedings related to our intellectual property or the intellectual property of others, we will incur substantial additional expenses and it will divert the efforts of our technical and management personnel.

GSK, a competitor of ours, is an exclusive licensee of broad patents covering methods of production of rHBsAg, a component of HEPLISAV-B. In addition, the Institut Pasteur also owns or has exclusive licenses to patents relating to aspects of production of rHBsAg in the U.S. While all of these patents have expired outside the U.S., they remain in force in the U.S. We have had negotiations with GSK to obtain a sublicense. However, there remains a risk that these negotiations may not result in an agreement, or that we may be required to agree to unfavorable terms. With our recent commercialization of HEPLISAV-B in the U.S., while these patents remain in force and until we obtain a license to these patents, GSK or its licensor or the Institut Pasteur may bring claims against us.

If we or our collaborators are unsuccessful in defending or prosecuting our issued and pending claims or in defending potential claims against our products, for example, as may arise in connection with the commercialization of HEPLISAV-B or any similar product candidate, we or our collaborator could be required to pay substantial damages or be unable to commercialize our product candidates or use our proprietary technologies without a license from such third party. A license may require the payment of substantial fees or royalties, require a grant of a cross-license to our technology or may not be available on acceptable terms, if at all. Any of these outcomes could require us to change our business strategy and could materially impact our business and operations.

If the combination of patents, trade secrets and contractual provisions that we rely on to protect our intellectual property is inadequate, the value of our product candidates will decrease.

Our success depends on our ability to:

- obtain and protect commercially valuable patents or the rights to patents both domestically and abroad;
- operate without infringing upon the proprietary rights of others; and
- prevent others from successfully challenging or infringing our proprietary rights.

We will be able to protect our proprietary rights from unauthorized use only to the extent that these rights are covered by valid and enforceable patents for the term of such patents or are otherwise effectively maintained as trade secrets. For example, the TLR agonist contained in our HEPLISAV-B product has patent protection scheduled to expire in June 2018, and while we have applied for a patent term extension which could be up to a maximum of five years, there can be no assurance of the period of protection if and until such extension is granted. We try to protect our proprietary rights by filing and prosecuting U.S. and foreign patent applications.

However, in certain cases such protection may be limited, depending in part on existing patents held by third parties, which may only allow us to obtain relatively narrow patent protection. In the U.S., legal standards relating to the validity and scope of patent claims in the biopharmaceutical field can be highly uncertain, are still evolving and involve complex legal and factual questions for which important legal principles remain unresolved.

The biopharmaceutical patent environment outside the U.S. is even more uncertain. We may be particularly affected by this uncertainty since several of our product candidates may initially address market opportunities outside the U.S., where we may only be able to obtain limited patent protection.

The risks and uncertainties that we face with respect to our patents and other proprietary rights include the following:

- we may not receive an issued patent for any of our patent applications or for any patent applications that we have exclusively licensed;
- the pending patent applications we have filed or to which we have exclusive rights may take longer than we expect to result in issued patents;
- the claims of any patents that are issued may not provide meaningful protection or may not be valid or enforceable;
- we might not be able to develop additional proprietary technologies that are patentable;
- the patents licensed or issued to us or our collaborators may not provide a competitive advantage;
- patents issued to other parties may limit our intellectual property protection or harm our ability to do business;
- other parties may independently develop similar or alternative technologies or duplicate our technologies and commercialize discoveries that we attempt to patent; and
- other parties may design around technologies we have licensed, patented or developed.

We also rely on trade secret protection and confidentiality agreements to protect our interests in proprietary know-how that is not patentable and for processes for which patents are difficult to enforce. We cannot be certain that we will be able to protect our trade secrets adequately. Any disclosure of confidential data in the public domain or to third parties could allow our competitors to learn our trade secrets. If we are unable to adequately obtain or enforce proprietary rights, we may be unable to commercialize our products, enter into collaborations, generate revenues or maintain any advantage we may have with respect to existing or potential competitors.

Risks Related to an Investment in our Common Stock

Our stock price is subject to volatility, and your investment may suffer a decline in value.

The market prices for securities of biopharmaceutical companies have in the past been, and are likely to continue in the future, to be, very volatile. The market price of our common stock is subject to substantial volatility depending upon many factors, many of which are beyond our control, including:

- progress or results of any of our clinical trials or regulatory or manufacturing efforts, in particular any announcements regarding the progress or results of our planned trials and BLA filing and communications, from the FDA or other regulatory agencies;
- our ability to receive timely regulatory approval for our product candidates;
- our ability to establish and maintain collaborations for the development and commercialization of our product candidates;
- our ability to raise additional capital to fund our operations;
- the success or failure of clinical trials involving our immuno-oncology product candidates and the product candidates of third party collaborators in combination studies;
- technological innovations, new commercial products or drug discovery efforts and preclinical and clinical activities by us or our competitors;
- changes in our intellectual property portfolio or developments or disputes concerning the proprietary rights of our products or product candidates;
- our ability to obtain component materials and successfully enter into manufacturing relationships for our product candidates or establish manufacturing capacity on our own;
- our ability to establish and maintain licensing agreements for intellectual property necessary for the development of our product candidates;

- changes in government regulations, general economic conditions or industry announcements;
- issuance of new or changed securities analysts' reports or recommendations;
- actual or anticipated fluctuations in our quarterly financial and operating results; and
- the volume of trading in our common stock.

One or more of these factors could cause a substantial decline in the price of our common stock. In addition, securities class action and shareholder derivative litigation has often been brought against a company following a decline in the market price of its securities. We are currently the target of such litigation, resulting from the decline in our common stock following the disclosure in November 2016 of the FDA's 2016 complete response letter related to HEPLISAV-B. We may in the future be the target of additional such litigation. Securities and shareholder derivative litigation could result in substantial costs, and divert management's attention and resources, which could harm our business, operating results and financial condition.

The anti-takeover provisions of our certificate of incorporation, our bylaws, Delaware law and our share purchase rights plan may prevent or frustrate a change in control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.

Provisions of our certificate of incorporation and bylaws may delay or prevent a change in control, discourage bids at a premium over the market price of our common stock and adversely affect the market price of our common stock and the voting or other rights of the holders of our common stock. These provisions include:

- authorizing our Board of Directors to issue additional preferred stock with voting rights to be determined by the Board of Directors;
- limiting the persons who can call special meetings of stockholders;
- prohibiting stockholder actions by written consent;
- creating a classified board of directors pursuant to which our directors are elected for staggered three year terms;
- providing that a supermajority vote of our stockholders is required for amendment to certain provisions of our certificate of incorporation and bylaws; and
- establishing advance notice requirements for nominations for election to our Board of Directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

Our share purchase rights plan may have certain anti-takeover effects. Specifically, the rights issued pursuant to the plan will cause substantial dilution to a person or group that attempts to acquire the Company on terms not approved by our Board of Directors. Although the rights should not interfere with any merger or other business combination approved by the Board of Directors since the rights issued may be amended to permit such acquisition or redeemed by the Company at \$0.001 per right prior to the earliest of (i) the time that a person or group has acquired beneficial ownership of 20% or more of our common stock or (ii) the final expiration date of the rights, the effect of the rights plan may deter a potential acquisition of the Company. In addition, we remain subject to the provisions of the Delaware corporation law that, in general, prohibit any business combination with a beneficial owner of 15% or more of our common stock for three years unless the holder's acquisition of our stock was approved in advance by our Board of Directors.

We will continue to incur increased costs and demands upon management as a result of complying with the laws and regulations affecting public companies, which could affect our operating results.

As a public company, we will continue to incur legal, accounting and other expenses associated with reporting requirements and corporate governance requirements, including requirements under the Sarbanes-Oxley Act of 2002 as well as rules implemented by the Securities and Exchange Commission and the Nasdaq Stock Market LLC. We may need to continue to implement additional financial and accounting systems, procedures and controls to accommodate changes in our business and organization and to comply with new reporting requirements. There can be no assurance that we will be able to maintain a favorable assessment as to the adequacy of our internal control over financial reporting. If we are unable to reach an unqualified assessment, or our independent registered public accounting firm is unable to issue an unqualified attestation as to the effectiveness of our internal control over financial reporting as of the end of our fiscal year, investors could lose confidence in the reliability of our financial reporting which could harm our business and could impact the price of our common stock.

Future sales of our common stock or the perception that such sales may occur in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. As of September 30, 2018 we had 62,691,478 shares of common stock outstanding, all of which shares were eligible for sale in the public market, subject in some cases to the volume limitations and manner of sale requirements under Rule 144 of the Securities Act of 1933, as amended.

Under our universal shelf registration statement filed by us in August 2017, we may sell any combination of common stock, preferred stock, debt securities and warrants in one or more offerings, including pursuant to our 2017 At Market Sales Agreement with Cowen under which we can offer and sell our common stock from time to time up to aggregate sales proceeds of \$150,000,000. As of September 30, 2018, we have \$132.8 million remaining under this agreement. The sale or issuance of our securities, as well as the existence of outstanding options and shares of common stock reserved for issuance under our option and equity incentive plans also may adversely affect the terms upon which we are able to obtain additional capital through the sale of equity securities.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 5. OTHER INFORMATION

On November 1, 2018, the Company's Board of Directors approved the Amended and Restated Bylaws of the Company effective as of the date of adoption. The Company's prior Amended and Restated Bylaws were adopted in 2004 (the "prior bylaws"). The following is a summary description of certain provision adopted or changed by the Amended and Restated Bylaws as compared to the prior bylaws:

- the advance notice period for stockholder proposals to be presented in connection with an annual meeting of stockholders was changed from not less than sixty (60) days nor more than ninety (90) days prior to the first anniversary of the immediately preceding year's annual meeting date to not less than ninety (90) days nor more than one hundred twenty (120) days prior to the first anniversary of the immediately preceding year's annual meeting date;
- the number of authorized directors provision was changed from not less than six (6) nor more than eleven (11) to such number as may be fixed by the Board from time to time;
- the Company's obligation to indemnify directors, officers, employees and other agents was changed to indemnify directors and officers to the extent not prohibited by the Delaware General Corporation Law ("DGCL") and provide for the Company's option to indemnify non-officer employees and agents as set forth in the DGCL; and
- a forum selection provision has been added to specify that the state courts within the State of Delaware are the exclusive forum for certain types of litigation involving the Company.

This summary is not intended to be complete and is qualified in its entirety by reference to the full text of the Amended and Restated Bylaws of the Company filed as Exhibit 3.8 to this Quarterly Report on Form 10-Q.

ITEM 6. EXHIBITS

Incorporated by Reference

Exhibit Number	Document	Exhibit Number	Filing	Filing Date	File No.	Filed Herewith
3.1	Sixth Amended and Restated Certificate of Incorporation	3.1	S-1/A	February 5, 2004	333-109965	
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation	3.1	8-K	January 4, 2010	001-34207	
3.3	Certificate of Amendment of Amended and Restated Certificate of Incorporation	3.1	8-K	January 5, 2011	001-34207	
3.4	Certificate of Amendment of Amended and Restated Certificate of Incorporation	3.6	8-K	May 30, 2013	001-34207	
3.5	Certificate of Amendment of the Sixth Amended and Restated Certificate of Incorporation	3.1	8-K	November 10, 2014	001-34207	
3.6	Certificate of Amendment of the Sixth Amended and Restated Certificate of Incorporation	3.1	8-K	June 2, 2017	001-34207	
3.7	Certificate of Amendment of the Sixth Amended and Restated Certificate of Incorporation	3.1	8-K	July 31, 2017	001-34207	
3.8	Amended and Restated Bylaws					X
3.9	Form of Certificate of Designation of Series A Junior Participating Preferred Stock	3.3	8-K	November 6, 2008	000-50577	
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8 and 3.9 above					
4.2	Form of Specimen Common Stock Certificate	4.2	S-1/A	January 16, 2004	333-109965	
4.3	Rights Agreement, dated as of November 5, 2008, by and between the Company and Mellon Investor Services LLC	4.4	8-K	November 6, 2008	000-50577	
4.4	Form of Right Certificate	4.5	8-K	November 6, 2008	000-50577	
4.5	Form of Restricted Stock Unit Award Grant Notice and Restricted Stock Unit Award Agreement under the 2018 Equity Incentive Plan	10.2	8-K	June 1, 2018	001-34207	
4.6	Form of Option Grant Notice and Option Agreement under the 2018 Equity Incentive Plan	10.3	8-K	June 1, 2018	001-34207	
10.1	Office/Laboratory Lease, dated September 17, 2018, between the Company and Emery Station West, LLC					X
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X

Exhibit Number	Document	Exhibit Number	Filing	Filing Date	File No.	Filed Herewith
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X
32.2*	Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X

EX—101.INS	XBRL Instance Document
EX—101.SCH	XBRL Taxonomy Extension Schema Document
EX—101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
EX—101.DEF	XBRL Taxonomy Extension Definition Linkbase
EX—101.LAB	XBRL Taxonomy Extension Labels Linkbase Document
EX—101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q, are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of this Form 10-Q), irrespective of any general incorporation language contained in such filing.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Berkeley, State of California.

DYNAVAX TECHNOLOGIES CORPORATION

Date: November 6, 2018

By: /s/ EDDIE GRAY
Eddie Gray
Chief Executive Officer
(Principal Executive Officer)

Date: November 6, 2018

By: /s/ MICHAEL OSTRACH
Michael Ostrach
Chief Financial Officer
(Principal Financial Officer)

Date: November 6, 2018

By: /s/ DAVID JOHNSON
David Johnson
Vice President, Chief Accounting Officer
(Principal Accounting Officer)

AMENDED AND RESTATED BYLAWS
OF
DYNAVAX TECHNOLOGIES CORPORATION
(A DELAWARE CORPORATION)

AMENDED AND RESTATED BYLAWS
OF
DYNAVAX TECHNOLOGIES CORPORATION
(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Wilmington, County of New Castle.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place Of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("DGCL").

Section 5. Annual Meetings.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may properly come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders (with respect to business other than nominations); (ii) brought specifically by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving the stockholder's notice provided for in Section 5(b) below, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5. For the avoidance of doubt, clause (iii) above shall be the exclusive means for a stockholder to make nominations and submit other business (other than matters properly included in the corporation's notice of meeting of stockholders and proxy statement under Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (the "1934 Act")) before an annual meeting of stockholders.

(b) At an annual meeting of the stockholders, only such business shall be conducted as is a proper matter for stockholder action under Delaware law and as shall have been properly brought before the meeting.

(i) For nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii) and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each nominee such stockholder proposes to nominate at the meeting: (1) the name, age, business address and residence address of such nominee, (2) the principal occupation or employment of such nominee, (3) the class and number of shares of each class of capital stock of the corporation which are owned of record and beneficially by such nominee, (4) the date or dates on which such shares were acquired and the investment intent of such acquisition, and (5) such other information concerning such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved), or that is otherwise required to be disclosed pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder (including such person's written consent to being named as a nominee and to serving as a director if elected); and (B) the information required by Section 5(b)(iv). The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(ii) Other than proposals sought to be included in the corporation's proxy materials pursuant to Rule 14a-8 under the 1934 Act, for business other than nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii), and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each matter such stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest (including any anticipated benefit of such business to any Proponent (as defined below) other than solely as a result of its ownership of the corporation's capital stock, that is material to any Proponent individually, or to the Proponents in the aggregate) in such business of any Proponent; and (B) the information required by Section 5(b)(iv).

(iii) To be timely, the written notice required by Section 5(b)(i) or 5(b)(ii) must be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that, subject to the last sentence of this Section 5(b)(iii), in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so received not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment or a postponement of an annual meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(iv) The written notice required by Section 5(b)(i) or 5(b)(ii) shall also set forth, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "Proponent" and collectively, the "Proponents"): (A) the name and address of each Proponent, as they appear on the corporation's books; (B) the class, series and number of shares of the corporation that are owned beneficially and of record by each Proponent; (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal between or among any Proponent and any of its affiliates or associates, and any others (including their names) acting in concert, or otherwise under the agreement, arrangement or understanding, with any of the foregoing; (D) a representation that the Proponents are holders of record or beneficial owners, as the case may be, of shares of the corporation entitled to vote at the meeting and intend to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under Section 5(b)(i)) or to propose the business that is specified in the notice (with respect to a notice under Section 5(b)(ii)); (E) a representation as to whether the Proponents intend to deliver a proxy statement and form of proxy to holders of a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (with respect to a notice under Section 5(b)(i)) or to carry such proposal (with respect

to a notice under Section 5(b)(ii)); (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; and (G) a description of all Derivative Transactions (as defined below) by each Proponent during the previous twelve (12) month period, including the date of the transactions and the class, series and number of securities involved in, and the material economic terms of, such Derivative Transactions.

For purposes of Sections 5 and 6, a "Derivative Transaction" means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial:

- (w) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation,
- (x) which otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation,
- (y) the effect or intent of which is to mitigate loss, manage risk or benefit of security value or price changes, or
- (z) which provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, with respect to any securities of the corporation,

which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member.

(c) A stockholder providing written notice required by Section 5(b)(i) or (ii) shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the meeting and (ii) the date that is five (5) business days prior to the meeting and, in the event of any adjournment or postponement thereof, five (5) business days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than five (5) business days after the record date for the meeting. In the case of an update and supplement pursuant to clause (ii) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two (2) business days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two (2) business days prior to such adjourned or postponed meeting.

(d) Notwithstanding anything in Section 5(b)(iii) to the contrary, in the event that the number of directors in an Expiring Class is increased and there is no public announcement of the appointment of a director to such class, or, if no appointment was made, of the vacancy in such class, made by the corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with Section 5(b)(iii), a stockholder's notice required by this Section 5 and which complies with the requirements in Section 5(b)(i), other than the timing requirements in Section 5(b)(iii), shall also be considered timely, but only with respect to nominees for any new positions in such Expiring Class created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation. For purposes of this section, an "Expiring Class" shall mean a class of directors whose term shall expire at the next annual meeting of stockholders.

(e) A person shall not be eligible for election or re-election as a director, unless the person is nominated in accordance with either clause (ii) or (iii) of Section 5(a). Except as otherwise required by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, or the Proponent does not act in accordance with the representations in Sections 5(b)(iv)(D) and 5(b)(iv)(E), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nominations or such business may have been solicited or received.

(f) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to Section 5(a)(iii) of these Bylaws.

(g) For purposes of Sections 5 and 6,

(i) "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act; and

(ii) "affiliates" and "associates" shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended (the "1933 Act").

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption).

(b) The Board of Directors shall determine the time and place, if any, of such special meeting. Upon determination of the time and place, if any, of the meeting, the Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. No business may be transacted at such special meeting otherwise than specified in the notice of meeting.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving notice provided for in this paragraph, who shall be entitled to vote at the meeting and who delivers written notice to the Secretary of the corporation setting forth the information required by Section 5(b)(i). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder of record may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if written notice setting forth the information required by Section 5(b)(i) of these Bylaws shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the ninetieth (90th) day prior to such meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. The stockholder shall also update and supplement such information as required under Section 5(c). In no event shall an adjournment or a postponement of a special meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(d) Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to nominations for the election to the Board of Directors to be considered pursuant to Section 6(c) of these Bylaws.

Section 7. Notice Of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment And Notice Of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners Of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List Of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

No action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent or by electronic transmission.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors or the Chief Executive Officer shall act as chairman. The Board of Directors shall have the authority to appoint a temporary presiding officer to serve at any meeting of the stockholders if the Chairman of the Board of Directors or the Chief Executive Officer is unable to do so for any reason.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number And Term Of Office. The authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 16. Powers. The business and affairs of the corporation shall be managed by or under the direction of the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Classes of Directors

Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. At the first annual meeting of stockholders following the initial classification of the Board of Directors, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following such initial classification, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following such initial classification, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this section, each director shall serve until his successor is duly elected and qualified or until his earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders, *provided, however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time. If no such specification is made, it shall be deemed effective at the time of delivery to the Secretary. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified.

Section 20. Removal.

(a) Subject to the rights of any series of Preferred Stock to elect additional directors under specified circumstances neither the Board of Directors nor any individual director may be removed without cause.

(b) Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of a majority of the voting power of all then outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors.

Section 21. Meetings.

(a) **Regular Meetings.** Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) **Special Meetings.** Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the Chief Executive Officer or a majority of the authorized number of directors.

(c) **Meetings by Electronic Communications Equipment.** Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, charges prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though it had been transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum And Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors; *provided, however*, at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees And Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Section 25, may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Chief Executive Officer (if a director), or, if a Chief Executive Officer is absent, the President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary or other officer or director directed to do so by the President, shall act as secretary of the meeting.

Section 27. Duties of Chairman of the Board of Directors. The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

ARTICLE V

OFFICERS

Section 28. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, President, Secretary and Treasurer. The Board of Directors may also appoint a Chief Executive Officer, a Chairman of the Board of Directors, a Chief Financial Officer and one or more Vice Presidents, Assistant Secretaries and Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 29. Tenure And Duties Of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) Duties of Chief Executive Officer. The Chief Executive Officer shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. Unless an officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed and no President has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(d) Duties of Vice Presidents. The Vice Presidents shall perform duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary or other officer to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. To the extent that a Chief Financial Officer has been appointed and no Treasurer has been appointed, all references in these Bylaws to the Treasurer shall be deemed references to the Chief Financial Officer. The President may direct the Treasurer, if any, or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(g) Duties of Treasurer. Unless another officer has been appointed Chief Financial Officer of the corporation, the Treasurer shall be the chief financial officer of the corporation and shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President, and, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Treasurer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 30. Delegation Of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 31. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 32. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or by the Chief Executive Officer or by other superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 33. Execution Of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation.

All checks and drafts drawn on banks or other depositories on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 34. Voting Of Securities Owned By The Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 35. Form And Execution Of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by certificate in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 36. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 37. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 38. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however,* that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 39. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 40. Execution Of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 35) may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 41. Declaration Of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 42. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 43. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 44. Indemnification of Directors, Officers, Employees and Other Agents.

(a) Directors and Officers. The corporation shall indemnify its directors and officers to the extent not prohibited by the DGCL or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and officers; and, *provided, further*, that the corporation shall not be required to indemnify any director or officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Employees and Other Agents. The corporation shall have power to indemnify its employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person except executive officers to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or officer, of the corporation, or is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or officer in connection with such proceeding provided, however, that if the DGCL requires, an advancement of expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this section, no advance shall be made by the corporation to an officer of the corporation (except by reason of the fact that such officer is or was a director of the corporation in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d)

Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or officer. Any right to indemnification or advances granted by this section to a director or officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or officer is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) Amendments. Any repeal or modification of this section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and officer to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and officer to the full extent under any other applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(i) The term “proceeding” shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(ii) The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(iii) The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(iv) References to a “director,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(v) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this section.

ARTICLE XII

NOTICES

Section 45. Notices.

(a) Notice To Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by US mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice To Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), as otherwise provided in these Bylaws, or by overnight delivery service, facsimile, telex or telegram, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) **Affidavit Of Mailing.** An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) **Methods of Notice.** It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) **Notice To Person With Whom Communication Is Unlawful.** Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) **Notice to Stockholders Sharing an Address.** Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within sixty (60) days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 46. Subject to the limitations set forth in Section 44(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. Any adoption, amendment or repeal of the Bylaws of the corporation by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders also shall have power to adopt, amend or repeal the Bylaws of the corporation; *provided, however,* that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

LOANS TO EXECUTIVE OFFICERS

Section 47. Loans To Executive Officers. The corporation may not directly or indirectly lend money to, or guarantee any obligation of, any executive officer of Dynavax or a subsidiary of the corporation, so long as prohibited by federal securities laws, rules and regulations.

ARTICLE XV

MISCELLANEOUS

Section 48. Forum.

(a) Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) shall be the sole and exclusive forum for (A) any derivative action or proceeding brought on behalf of the Corporation; (B) any action or proceeding asserting a claim of breach of a fiduciary duty owed by any current or former director, officer or other employee of the Corporation, to the Corporation or the Corporation's stockholders; (C) any action or proceeding asserting a claim against the Corporation or any current or former director, officer or other employee of the Corporation, arising out of or pursuant to any provision of the DGCL, the Amended and Restated Certificate of Incorporation of the Corporation or these Bylaws (as each may be amended from time to time); (D) any action or proceeding to interpret, apply, enforce or determine the validity of the Amended and Restated Certificate of Incorporation of the Corporation or these Bylaws (including any right, obligation, or remedy thereunder); (E) any action or proceeding as to which the DGCL confers jurisdiction to the Court of Chancery of the

State of Delaware; (F) any action asserting a claim against the Corporation or any director, officer or other employee of the Corporation, governed by the internal affairs doctrine, in all cases to the fullest extent permitted by law and subject to the court's having personal jurisdiction over the indispensable parties named as defendants. This Subsection (a) of Section 48 shall not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934 or any other claim for which the federal courts have exclusive jurisdiction.

(b) Unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933.

(c) Any person or entity holding, owning or otherwise acquiring any interest in any security of the Corporation shall be deemed to have notice of and consented to the provisions of these Bylaws.

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OFFICE/LABORATORY LEASE
BETWEEN
EMERY STATION WEST, LLC (LANDLORD)
AND
DYNAVAX TECHNOLOGIES CORPORATION (TENANT)
EmeryStation West
Emeryville, California

ARTICLE 1

BASIC LEASE PROVISIONS

1.1 BASIC LEASE PROVISIONS

In the event of any conflict between these Basic Lease Provisions and any other provisions in the Lease (as hereinafter defined), such other Lease provision shall control.

(1) BUILDING AND ADDRESS:

5959 Horton Street
Emeryville, California 94608

(2) LANDLORD AND ADDRESS:

Emery Station West, LLC
1120 Nye Street, Suite 400
San Rafael, California 94901

Notices to Landlord shall be addressed:

Emery Station West, LLC
c/o Wareham Property Group
1120 Nye Street, Suite 400
San Rafael, California 94901

With a copy to:

Shartsis Friese LLP
One Maritime Plaza, 18th Floor
San Francisco, California 94901
Attention: David H. Kremer, Esq.

(3) TENANT AND CURRENT ADDRESS:

Name: Dynavax Technologies Corporation, a Delaware corporation
Federal Tax Identification Number: 33-0728374

Tenant shall promptly notify Landlord of any change in the foregoing items.

Notices to Tenant shall be addressed:

Prior to the Commencement Date:

2929 Seventh Street, Suite 100
Berkeley, California 94710
Attention: Michael Ostrach, Senior Vice President, Chief Financial
Officer and Chief Business Officer

On and after the Commencement Date:

At the Premises
Attention: Michael Ostrach, Senior Vice President, Chief Financial Officer and Chief Business
Officer

(4) DATE OF LEASE: September 17, 2018

(5) LEASE TERM: Commencing on the Rent Commencement Date and continuing through the last day of the one hundred forty-fourth (144th) full calendar month following the Rent Commencement Date; subject to the options set forth in Section 2.6 below.

(6) COMMENCEMENT DATE: The date which Landlord delivers possession of the Premises to Tenant with the Landlord Work Substantially Complete to allow Tenant to commence construction of the Tenant Work.

(7) PROJECTED COMMENCEMENT DATE: September 20, 2018

(8) RENT COMMENCEMENT DATE: The earlier to occur of: a) Tenant's commencement of its business operations at the Premises, and b) April 1, 2019.

(9) EXPIRATION DATE: The last day of the one hundred forty-fourth (144th) full calendar month following the Rent Commencement Date.

(10) MONTHLY BASE RENT: An amount determined by multiplying the Rentable Area of the Premises (as the same may exist from time) by the Applicable Monthly Base Rate. As used herein, the "Applicable Monthly Base Rate" shall be an amount equal to Four Dollars and Seventy-Five Cents (\$4.75) for the twelve (12) month period following the Rent Commencement Date (which twelve (12) month period shall include any partial calendar month following the Commencement Date if the Commencement Date is other than the first (1st) day of a calendar month), which amount shall increase by a compounded three percent (3%) on each annual anniversary thereafter.

(11) RENTABLE AREA: 75,662 square feet.

(12) TENANT IMPROVEMENT ALLOWANCE: Notwithstanding anything in this Lease to the contrary, Landlord shall provide Tenant a tenant improvement allowance to be utilized to pay for Tenant Improvement Costs (as such are defined in the work letter attached to this Lease as Exhibit B (the "Workletter")), in the amount of up to \$8,322,820.00, calculated to be equal to

one hundred-ten dollars (\$110.00) per rentable square foot of Premises (the “Tenant Improvement Allowance”). Provided that no Default under the Lease has occurred and is continuing with respect to Tenant, the Tenant Improvement Allowance shall be drawn down pursuant to the terms of the Workletter.

(13) SECURITY DEPOSIT: \$1,437,578.00, subject to reduction at the end of the sixth (6th) full year of the Lease Term, as more specifically defined in Article 5 hereof.

(14) PREMISES: The leasable area located on the sixth (6th) and seventh (7th) floors of the Building, as outlined on Exhibit A hereto (such portion of the Building collectively hereafter the “Premises”).

(15) TENANT’S USE OF PREMISES: Office, laboratory, biotechnology research and development, ancillary uses thereto and other related legal uses, subject to any and all applicable government approvals (the “Permitted Use”). Any other uses shall be subject to Landlord’s approval which shall not be unreasonably withheld.

(16) PARKING: Rights to park at the parking garage located at 6100 Horton Street (the “Garage”) or at such other location(s) in the vicinity of the Project designated by Landlord or Landlord’s parking operator from time to time, on an unreserved basis, up to one hundred fifty-one (151) cars, calculated using a ratio of two (2) unreserved parking rights for each 1,000 square feet of Rentable Area of the Premises. The current parking charge is \$145. In addition, Tenant shall have the right to use, on an unreserved basis in common with other tenants and Building users, the secured bicycle parking area and charging stations for electric cars inside the Garage.

(17) BROKERS:

Landlord’s Broker: Kidder Mathews

Tenant’s Broker: Scott Stone (CRESA Partners) and Mark Moser (Savills Studley)

1.2 ENUMERATION OF EXHIBITS, SCHEDULES AND RIDER

The exhibits, schedules and rider set forth below and attached to this Lease are incorporated in this Lease by this reference:

EXHIBIT A	Outline of the Premises
EXHIBIT B	Workletter Agreement
EXHIBIT B-1	Applicable Green Building Standards
EXHIBIT B-2	Landlord Work / Warm Shell Description
EXHIBIT C-1	Laboratory Rules and Regulations
EXHIBIT C-2	Rules and Regulations
RIDER 1	Rent Commencement Date Agreement
SCHEDULE 1	Superior Rights
SCHEDULE 2	Special Superior Rights

1.3 DEFINITIONS

For purposes hereof, in addition to terms defined elsewhere in this Lease, the following terms shall have the following meanings:

AFFILIATE: Any corporation or other business entity that is currently owned or controlled by, owns or controls, or is under common ownership or control with Tenant or Landlord, as the case may be. The term “control” means (i) ownership or voting control, directly or indirectly, of 50% or more of the beneficial ownership interest of the entity in question, or (ii) the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such entity, whether through the ability to exercise voting power by contract or otherwise.

BUILDING: The building located at the address specified in Section 1.1(1). The Building may include office, laboratory, medical, retail and other uses.

CABLE: As defined in Section 8.2.

COMMENCEMENT DATE: The date specified in Section 1.1(6).

COMMON AREAS: All areas of the Project made available by Landlord from time to time for the general common use or benefit of the tenants of the Building, and their employees and invitees, or the public, as such areas currently exist and as they may be changed from time to time.

DECORATION: Tenant Alterations which do not require a building permit, are not visible from outside of the Premises, and which do not involve any changes to the structural elements of the Building, or any of the Building’s systems, including its electrical, mechanical, plumbing, security, heating, ventilating, air-conditioning, communication, and fire and life safety systems.

DEFAULT: As defined in Section 11.1.

DEFAULT RATE: Two (2) percentage points above the rate then most recently announced by Bank of America N.T. & S.A. at its San Francisco main office as its base lending reference rate, from time to time announced, but in no event higher than the maximum rate permitted by Law.

EXPIRATION DATE: The date specified in Section 1.1(9), as may be extended in accordance with Section 2.6.

FORCE MAJEURE: Any accident, casualty, act of God, war or civil commotion, strike or labor troubles, or any cause whatsoever beyond the reasonable control of Landlord or Tenant, including water shortages, energy shortages or governmental preemption in connection with an act of God, a national emergency, or by reason of Law, or by reason of the conditions of supply and demand which have been or are affected by act of God, war or other emergency; in no event, however, shall any Force Majeure event excuse or delay Tenant’s obligation to timely pay all Rent owing under this Lease.

GREEN BUILDING STANDARDS: One or more of the following: the U.S. EPA’s Energy Star® Portfolio Manager, the Green Building Initiative’s Green Globes™ building rating system, the U.S. Green Building Council’s Leadership in Energy and Environmental Design

(LEED®) building rating system, the ASHRAE Building Energy Quotient (BEQ), the Global Real Estate Sustainability Benchmark (GRESB), or other standard for high performance buildings adopted by Landlord with respect to the Building or the Project, as the same may be revised from time to time. The Green Building Standards applicable to the Tenant Improvements are set forth on Exhibit B-1 to this Lease.

INDEMNITEES: Collectively, Landlord, any Mortgagee or ground lessor of the Property, the property manager and the leasing manager for the Property and their respective partners, members, directors, officers, agents and employees.

LAND: The parcel(s) of real estate on which the Building and Project are located.

LANDLORD WORK: The construction or installation of the improvements to the Premises, to be furnished by Landlord, as specifically described in the Workletter.

LAWS OR LAW: All laws, ordinances, rules, regulations, other requirements, orders, rulings or decisions adopted or made by any governmental body, agency, department or judicial authority having jurisdiction over the Property, the Premises or Tenant's activities at the Premises and any covenants, conditions or restrictions of record which affect the Property.

LEASE: This instrument and all exhibits, schedules and any riders attached hereto, as may be amended from time to time.

LEASE YEAR: The twelve month period beginning on the first day of the first month following the Commencement Date (unless the Commencement Date is the first day of a calendar month in which case beginning on the Commencement Date), and each subsequent twelve month, or shorter, period until the Expiration Date.

LEASEHOLD IMPROVEMENTS: As defined in Section 12.1.

MONTHLY BASE RENT: The monthly rent specified in Section 1.1(10).

MORTGAGEE: Any holder of a mortgage, deed of trust or other security instrument encumbering the Property.

NATIONAL HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day and other holidays reasonably recognized by the Landlord and the janitorial and other unions servicing the Building in accordance with their contracts.

OPERATING EXPENSES: All costs, expenses and disbursements of every kind and nature which Landlord shall pay or become obligated to pay in connection with the ownership, management, operation, maintenance, replacement and repair of the Property, including, without limitation, property management fees not to exceed 3.5% of gross revenues; costs and expenses of capital repairs, replacements and improvements which shall be amortized over a period reasonably determined by Landlord pursuant to sound accounting principles consistently applied together with interest thereon at a rate reasonably determined by Landlord (not to exceed the Default Rate) which, in the case of capital improvements, are (A) reasonably expected by Landlord to produce an actual net reduction in operating charges or energy consumption or effect other economies in the operation or maintenance of the Project (except in the case of capital replacements, which shall not require this test), or (B) required under any governmental law or regulation not in effect as of

the Commencement Date (such capital repairs, replacements and improvements collectively, "Permitted Capital Expenditures"); an equitable allocation of management office expenses (including, without limitation, market office rent, supplies, equipment, salaries, wages, bonuses and other compensation relating to employees of Landlord or its agents engaged in the management, operation, repair, or maintenance of the EmeryStation Campus); and, if applicable, the cost of operating any shared campus amenities, including but not limited to a fitness center and/or conference center, that are available for use by Tenant (which amenities may be located in the Building or in other buildings in the EmeryStation Campus owned by Landlord or affiliates of Landlord), as reasonably determined by Landlord. Operating Expenses shall not include, (i) costs of alterations of the premises of tenants of the Project, including all costs relating to preparing rental space for tenants, (ii) costs of goods or services to the extent billed directly to other tenants of the Project (other than as reimbursement of general operating expenses), (iii) depreciation charges, (iv) interest, fees and principal payments on loans (except for interest charges for Permitted Capital Expenditures as provided for above, which Landlord may include in Operating Expenses), (v) ground rental payments, (vi) real estate brokerage and leasing commissions, (vii) advertising and marketing expenses, (viii) costs to the extent Landlord has been reimbursed for the same by insurance proceeds, condemnation awards, third party warranties or other third parties (other than tenant's reimbursement of general operating expenses), (ix) expenses incurred in negotiating leases of tenants in the Project or enforcing lease obligations of tenants in the Project, (x) Landlord's general corporate overhead, (xi) costs directly incurred in connection with a sale, financing, refinancing or transfer of all or any portion of the Project, (xii) costs incurred to comply with Laws relating to the removal and remediation of any Hazardous Material which were (A) in existence at the Project as of the Commencement Date or (B) not brought on to the Premises by Tenant or (C) migrated thereto through air, water or soil through no fault of Tenant; provided, however, that any costs incurred in the cleanup or remediation of *de minimis* amounts of Hazardous Materials customarily used in office buildings or used to operate motor vehicles and customarily found in parking facilities shall be included as Operating Expenses, (xiii) original construction costs or original capital expenditures for expansion of the Project, (xiv) costs for employees not dedicated full time to the Project unless such costs are reasonably prorated to reflect time spent on the Project, (xv) legal costs for disputes with tenants, (xvi) capital improvements, capital replacements, capital repairs, capital equipment and tools that are not Permitted Capital Expenditures, (xvii) reserves, (xviii) expenses for any item or service which is not provided to Tenant but is provided for the sole use or benefit of another tenant, (xix) interest or penalties attributable to late payment by Landlord (provided that such late payment is not caused by Tenant), (xx) cost of correcting any building code or curing violations of other applicable law which existed prior to the Commencement Date, and (xxi) any item that, if included, in Operating Expenses, would involve a double collection for such item by Landlord. In the event there exists a conflict as to an expense that is specified to be included in Operating Expenses and is also specified to be excluded from Operating Expenses within the above list, the exclusions listed above shall prevail and the expenses shall be deemed excluded. If any Operating Expense, though paid in one year, relates to more than one calendar year, at the option of Landlord such expense may be proportionately allocated among such related calendar years; provided that only those periods falling within the Term of the Lease shall be allocated to Tenant. Landlord agrees that Landlord will not collect or be entitled to collect Operating Expenses from Tenant in an amount in excess of Tenant's Share of one hundred percent (100%) of the Operating Expenses attributable to the Project. In addition, Operating Expenses shall be reduced by all cash discounts, trade discounts or quantity discounts received by Landlord or Landlord's managing agent in the purchase of any goods, utilities or services in connection with the prudent operation of the Building. Operating Expenses for the Building that are not, in Landlord's reasonable discretion, allocable solely to either the office, laboratory, or retail portion of the Building shall be equitably allocated by Landlord between/amongst such uses.

PREMISES: The space located in the Building described in Section 1.1(14) and as outlined on Exhibit A attached hereto.

PROJECT or PROPERTY: The Project consists of the mixed-use building located at the street address specified in Section 1.1(1) in Emeryville, California, and associated surface and garage parking as designated by Landlord from time to time, landscaping and improvements, together with the Land, any associated interests in real property, and the personal property, fixtures, machinery, equipment, systems and apparatus located in or used in conjunction with any of the foregoing. A portion of the parking garage located at 6100 Horton Street shall be designated by Landlord as part of the Project. The Project may also be referred to as the Property.

PROJECT'S SUSTAINABILITY PRACTICES: The operations and maintenance practices for the Building, whether incorporated into the Building's Rules and Regulations, construction rules and regulations, separate written sustainability policies or otherwise reasonably implemented by Landlord with respect to the Building or the Project, as the same may be revised from time to time, addressing, among other things: energy efficiency; energy measurement and reporting; water usage; recycling, composting, and waste management; indoor air quality; and chemical use.

PROJECTED COMMENCEMENT DATE: The date specified in Section 1.1(7).

REAL PROPERTY: The Property excluding any personal property.

RENT: Collectively, Monthly Base Rent, Rent Adjustments and Rent Adjustment Deposits, and all other charges, payments, late fees or other amounts required to be paid by Tenant under this Lease.

RENT ADJUSTMENT: Any amounts owed by Tenant for payment of Operating Expenses and/or Taxes. The Rent Adjustments shall be determined and paid as provided in Article 4.

RENT ADJUSTMENT DEPOSIT: An amount equal to Landlord's estimate of the Rent Adjustment attributable to each month of the applicable calendar year (or partial calendar year) during the Term. On or before the Commencement Date and with each Landlord's Statement (defined in Article 4), Landlord may estimate and notify Tenant in writing of its estimate of Tenant's Share of the Operating Expenses and of Taxes for such calendar year (or partial calendar year). Prior to the first determination by Landlord of the amount of Operating Expenses and of Taxes for the first calendar year (or partial calendar year), Landlord may estimate such amounts in the foregoing calculation. Landlord shall have the right from time to time during any calendar year to provide a new or revised estimate of Operating Expenses and/or Taxes and to notify Tenant in writing thereof, of corresponding adjustments in Tenant's Rent Adjustment Deposit payable over the remainder of such year, and of the amount or revised amount due allocable to months preceding such change. The last estimate by Landlord shall remain in effect as the applicable Rent Adjustment Deposit unless and until Landlord notifies Tenant in writing of a change, which notice may be given by Landlord from time to time during each year throughout the Term.

RENTABLE AREA OF THE PREMISES: The amount of square footage stipulated and/or determined, from time to time, pursuant to Section 1.1(11).

STANDARD OPERATING HOURS: Monday through Friday from 8:00 A.M. to 6:00 P.M. and Saturdays from 9:00 A.M. to 1:00 P.M., excluding National Holidays.

SUBSTANTIALLY COMPLETE or SUBSTANTIAL COMPLETION: The completion of the Landlord Work in good and workmanlike manner, in material compliance with all applicable Laws and the plans and specifications, except for minor insubstantial details of construction, decoration or mechanical adjustments which remain to be done which do not materially and substantially interfere with Tenant's construction of the Tenant Work in the Premises. Substantial Completion shall be deemed to have occurred notwithstanding a requirement to complete "punchlist" or similar minor corrective work.

TAXES: All federal, state and local governmental taxes, assessments, license fees and charges of every kind or nature, whether general, special, ordinary or extraordinary, which Landlord shall pay or become obligated to pay because of or in connection with the ownership, leasing, management, control, sale, transfer or operation of the Property or any of its components (including any personal property used in connection therewith) or Landlord's business of owning and operating the Property, which may also include any rental, revenue, general gross receipts or similar taxes levied in lieu of or in addition to general real and/or personal property taxes. For purposes hereof, Taxes for any year shall be Taxes which are assessed for any period of such year, whether or not such Taxes are billed and payable in a subsequent calendar year. There shall be included in Taxes for any year the amount of all fees, costs and expenses (including reasonable attorneys' fees) paid by Landlord during such year in seeking or obtaining any refund or reduction of Taxes. Taxes for any year shall be reduced by the net amount of any tax refund received by Landlord attributable to such year. If a special assessment payable in installments is levied against any part of the Property, Taxes for any year shall include only the installment of such assessment and any interest payable or paid during such year. Taxes shall not include any federal or state inheritance, general income, transfer, gift or estate taxes, except that if a change occurs in the method of taxation resulting in whole or in part in the substitution of any such taxes, or any other assessment, for any Taxes as above defined, such substituted taxes or assessments shall be included in the Taxes. Tenant and Landlord acknowledge that Proposition 13 was adopted by the voters of the State of California in the June, 1978 election and that assessments, taxes, fees, levies and charges may be imposed by governmental agencies for such purposes as fire protection, street, sidewalk, road, utility construction and maintenance, refuse removal and for other governmental services which may formerly have been provided without charge to property owners or occupants. It is the intention of the parties that all new and increased assessments, taxes, fees, levies and charges due to any cause whatsoever are to be included within the definition of real property taxes for purposes of this Lease.

TENANT ADDITIONS: Collectively, Tenant Work and Tenant Alterations.

TENANT ALTERATIONS: Any alterations, improvements, additions, installations or construction in or to the Premises or any Building Systems serving the Premises (excluding Landlord Work and Tenant Work); and any supplementary air-conditioning systems installed by Landlord or by Tenant at Landlord's request pursuant to Section 6.1(b).

TENANT WORK: All work installed or furnished to the Premises by Tenant in accordance with the Workletter.

TENANT'S SHARE: The percentage that represents the ratio of the Rentable Area of the Premises to the Rentable Area of the Building, as determined by Landlord from time to time, and which as of the Date of Lease is 28.94%. Tenant acknowledges that the Rentable Area of the Premises or Building may change from re-measurement or otherwise during the Term, or as a result of Tenant leasing additional space within the Building or a physical change to the size of the

Premises or Building (provided, however, that, the Base Rent payable hereunder shall not be changed as a consequence of a re-measurement of the Building and/or the Premises unless the Premises are physically expanded). Notwithstanding anything herein to the contrary, Landlord may equitably adjust Tenant's Share for all or part of any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Premises or only a portion of the Building and/or the Project or that varies with the occupancy of the Building and/or the Project, provided such adjustment is done in accordance with sound real estate accounting and management principles, consistently applied.

TERM: The initial term of this Lease commencing on the Commencement Date and expiring on the Expiration Date, including the Renewal Term, if Tenant properly exercises the Renewal Option in accordance with Section 2.6.

TERMINATION DATE: The Expiration Date or such earlier date as this Lease terminates or Tenant's right to possession of the Premises terminates.

WORKLETTER: The Agreement regarding the manner of completion of Landlord Work and Tenant Work set forth on Exhibit B attached hereto.

ARTICLE 2

PREMISES, TERM, FAILURE TO GIVE POSSESSION, AND PARKING

2.1 LEASE OF PREMISES

(a) Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, the Premises for the Term and upon the terms, covenants and conditions provided in this Lease.

(b) The parties acknowledge and agree that the Rentable Area set forth in this Lease has been conclusively determined and is deemed final for the purposes of this Lease and that prior to the Date of Lease, Tenant had the right to cause its Architect to verify and confirm the Rentable Area of the Premises.

2.2 TERM

(a) The Commencement Date shall be the date which Landlord delivers possession of the Premises to Tenant with the Landlord Work Substantially Complete to allow Tenant to commence construction of the Tenant Work.

(b) Within thirty (30) days following the Rent Commencement Date, Landlord and Tenant shall enter into an agreement (the form of which is attached hereto as Rider 1) confirming the Rent Commencement Date and the Expiration Date. If Tenant fails to enter into such agreement, then the Rent Commencement Date and the Expiration Date shall be the date designated by Landlord in such agreement.

2.3 DELIVERY OF POSSESSION

Landlord shall use commercially reasonable efforts to tender possession of the Premises to Tenant by the later of the Date of Lease or the Projected Commencement Date with the Landlord Work Substantially Complete. Tenant agrees that if Landlord shall be unable to tender possession of the Premises with the Landlord Work Substantially Complete by the Projected Commencement Date for any reason, then this Lease shall not be void or voidable, nor shall Landlord be subject to any liability therefor. Landlord and Tenant hereby acknowledge and agree that Tenant's access/entry to the Premises prior to Rent Commencement Date shall be subject to all the provisions of this Lease (including payment of any utilities used in the Premises) other than the payment of Monthly Base Rent and Tenant's Share of Operating Expenses, including, without limitation, Tenant's compliance with the insurance and indemnity requirements of this Lease. In connection with any such early entry, Tenant agrees that it shall not in any way unreasonably interfere with the progress of any other work being conducted in the Building, either by Landlord and/or Landlord's tenants. Should such early entry unreasonably interfere with the progress of other work, in Landlord's reasonable judgment, then Landlord may demand that Tenant forthwith cease the activities that are causing such interference or vacate the Premises as necessary until such interference would not occur, and Tenant shall immediately comply with such demand.

2.4 CONDITION OF PREMISES

Landlord represents and warrants that, as of the Commencement Date, the Building's structural components and electrical and plumbing systems, including, without limitation, heating, ventilation and air-conditioning (collectively, "Building Systems"), are in good condition and repair. No later than one hundred twenty (120) days after the Commencement Date, Tenant shall notify Landlord in writing of any defects in the Landlord Work and/or the Building Systems (other than defects caused by Tenant after the Commencement Date) that are claimed by Tenant or in the materials or workmanship furnished by Landlord in completing the Landlord Work. Except for defects stated in such notices, Tenant shall be conclusively deemed to have accepted the Premises "AS IS" in the condition existing on the Commencement Date. Landlord shall proceed diligently to correct the defects stated in such notices unless Landlord disputes in good faith the existence of any such defects. In the event of any dispute as to the existence of any such defects, the reasonable and good faith decision of Landlord's architect shall be final and binding on the parties. No agreement of Landlord to alter, remodel, decorate, clean or improve the Premises or the Real Property and no representation regarding the condition of the Premises or the Real Property has been made by or on behalf of Landlord to Tenant, except as may be specifically stated in this Lease or in the Workletter.

2.5 PARKING

During the Term, Tenant shall have the right to park up to one hundred fifty-one (151) cars of Tenant and its employees ("Tenant's Parking"), such quantity calculated to be two (2) vehicle rights for every one thousand (1,000) rentable square feet of Premises. Subject to the aforementioned maximum, Tenant shall have the right to set the number of Tenant's Parking as of the Commencement Date and thereafter to adjust the amount of Tenant's Parking not more often than monthly upon thirty (30) days' advance written notice to Landlord. Initially, Tenant's Parking shall be located in the Garage owned by Landlord and located at 6100 Horton Street and shall be leased by Tenant at then quoted rates. In the event Tenant fails at any time to pay the full amount of any such parking charges beyond all applicable notice and cure periods, then Tenant's parking

rights shall be reduced to the extent of Tenant's failure to pay for any such parking, and Tenant shall be in Default hereunder. The locations and type of parking shall be designated by Landlord or Landlord's parking operator from time to time; provided, however, that any portion of Tenant's Parking that is not provided in the garage shall be located at other location(s) in the vicinity of the Project. Tenant acknowledges and agrees that the parking stalls serving the Project may include valet parking and a mixture of stalls for compact vehicles as well as full-size passenger automobiles, and that Tenant shall not use parking stalls for vehicles larger than the striped size of the parking stalls nor shall Tenant park cars overnight. All vehicles utilizing Tenant's parking privileges shall prominently display identification stickers or other markers, and/or have passes or keycards for ingress and egress, as may be required and provided by Landlord or its parking operator from time to time. To the extent provided to Tenant in writing, Tenant shall comply with any and all non-discriminatory parking rules and regulations from time to time established by Landlord or Landlord's parking operator, including a requirement that Tenant pay to Landlord or Landlord's parking operator a charge for loss and replacement of passes, keycards, identification stickers or markers, and for any and all loss or other damage caused by persons or vehicles related to use of Tenant's parking privileges. Tenant shall not allow any vehicles using Tenant's parking privileges to be parked, loaded or unloaded except in accordance with this Section, including in the areas and in the manner reasonably designated by Landlord or its parking operator for such activities. If any vehicle is using the parking or loading areas contrary to any provision of this Section, Landlord or its parking operator shall have the right, in addition to all other rights and remedies of Landlord under this Lease, to remove or tow away the vehicle without prior notice to Tenant, and the cost thereof shall be paid to Landlord within ten (10) days after notice from Landlord to Tenant.

2.6 RENEWAL OPTIONS

(a) Tenant shall have the option to renew this Lease ("Renewal Option") with respect to the entirety of the Premises for two (2) consecutive additional terms of five (5) years each (each a "Renewal Term"), commencing upon expiration of the initial Term or the first Renewal Term, as applicable. Each Renewal Option must be exercised, if at all, by written notice given by Tenant to Landlord not earlier than eighteen (18) months and not later than twelve (12) months prior to commencement of the Renewal Term. If Tenant properly exercises a Renewal Option, then references in this Lease to the Term shall be deemed to include the Renewal Term. Tenant's rights under this Section 2.6 shall, at the option of Landlord, be null and void and Tenant shall have no right to renew this Lease if on the date Tenant exercises a Renewal Option or on the date immediately preceding the commencement date of a Renewal Term a Default beyond the applicable notice and cure period shall have occurred and be continuing hereunder; provided, however, if Tenant cures such Default within the applicable periods provided under this Lease, then the Renewal Option shall be reinstated.

(b) If Tenant properly exercises a Renewal Option, then during such Renewal Term all of the terms and conditions set forth in this Lease as applicable to the Premises during the initial Term shall apply during the Renewal Term, including, without limitation, the obligation to pay Rent Adjustments, except that (i) Tenant shall accept the Premises in their then "as-is" state and condition, and Landlord shall have no obligation to make or pay for any improvements to the Premises, and (ii) during the Renewal Term the Monthly Base Rent payable by Tenant shall be the Fair Market Value during the Renewal Term as hereinafter set forth, except that in no event shall Monthly Base Rent during a Renewal Term be less than one hundred percent (100%) of the Monthly Base Rent in effect during the month immediately preceding the Renewal Term.

(c) For purposes of this Section, the term “Fair Market Value” shall mean the base rental rate, including periodic rent adjustment, for space comparable in size, location and quality of the Premises under primary lease (and not sublease) to new or renewing tenants, for a comparable term with base rent adjusted for the relative tenant improvement allowance, if applicable, and taking into consideration such amenities as existing improvements and non-removable fixtures in place at the time of such renewal (but not including the value of any Tenant Alterations made to the Premises following the Rent Commencement Date and the completion of Tenant’s initial build-out), view, floor on which the Premises is situated and the like, situated in comparable science/laboratory buildings in Emeryville and Berkeley.

(d) If Tenant properly exercises a Renewal Option, then Landlord, by notice to Tenant not later than six (6) months prior to commencement of the Renewal Term, shall indicate Landlord’s determination of the Fair Market Value. Tenant, within fifteen (15) days after the date on which Landlord provides such notice of the Fair Market Value shall either (i) give Landlord final binding written notice (“Binding Notice”) of Tenant’s acceptance of Landlord’s determination of the Fair Market Value, or (ii) if Tenant disagrees with Landlord’s determination, provide Landlord with written notice of Tenant’s election to submit the Fair Market Value to binding arbitration (the “Arbitration Notice”). If Tenant fails to provide Landlord with either a Binding Notice or Arbitration Notice within such fifteen (15) day period, Landlord shall send Tenant a second written notice specifying the Fair Market Rent (“Second FMV Notice”), and such Second FMV Notice shall include the following: **“FAILURE TO ACCEPT SAID FAIR MARKET RENT AMOUNT IN WRITING OR DISPUTE SUCH AMOUNT BY SUBMITTING TO ARBITRATION IN ACCORDANCE WITH SECTION 2.6(d) OF THIS LEASE WITHIN TEN (10) DAYS SHALL BE DEEMED TENANT’S AGREEMENT TO PAY SUCH AMOUNT DURING THE RENEWAL TERM.”** If Tenant fails to provide Landlord with either a Binding Notice or Arbitration Notice within ten (10) days after receiving the Second FMV Notice, Tenant shall have been deemed to have given the Binding Notice. If Tenant provides or is deemed to have provided Landlord with a Binding Notice, Landlord and Tenant shall enter into the Renewal Amendment (as defined below) upon the terms and conditions set forth herein.

(e) If the parties are unable to agree upon the Fair Market Value for the Premises within ten (10) business days after Landlord’s receipt of the Arbitration Notice, Fair Market Value as of commencement of the Renewal Term shall be determined as follows:

(1) Within thirty (30) days after the date Tenant delivers the Arbitration Notice, Tenant, at its sole expense, shall obtain and deliver in writing to Landlord a determination of the Fair Market Value for the Premises for a term equal to the Renewal Term from an independent broker or appraiser (“Tenant’s broker”) licensed in the State of California and engaged in the science/laboratory markets in Emeryville and Berkeley, California, for at least the immediately preceding five (5) years who has not been engaged by either Landlord or Tenant in the last five (5) years. If Landlord accepts such determination, Landlord shall provide written notice thereof within ten (10) days after Landlord’s receipt of such determination and the Base Rent for the Renewal Term shall be adjusted to an amount equal to the Fair Market Value determined by Tenant’s broker. Landlord shall be deemed to have rejected Tenant’s determination if Landlord fails to respond within the ten (10) day period.

(2) If Landlord provides notice that it rejects, or is deemed to have rejected, such determination, within twenty (20) days after receipt of the determination of Tenant's broker, Landlord shall designate a broker or appraiser ("Landlord's broker") licensed in the State of California and possessing the qualifications set forth in (1) above. Landlord's broker and Tenant's broker shall name a third broker, similarly qualified, within five (5) days after the appointment of Landlord's broker ("Neutral Broker").

(3) The Neutral Broker shall determine the Fair Market Value for the Premises as of the commencement of the Renewal Term within fifteen (15) days after the appointment of such Neutral Broker by choosing the determination of the Landlord's broker that was set forth in the initial notice delivered by Landlord pursuant to Section 2.6(d) or the Tenant's broker that was delivered pursuant to Section 2.6(e)(1) which is closest to its own determination of Fair Market Value. The decision of the Neutral Broker shall be binding on Landlord and Tenant.

(f) Landlord shall pay the costs and fees of Landlord's broker in connection with any determination hereunder, and Tenant shall pay the costs and fees of Tenant's broker in connection with such determination. The costs and fees of the Neutral Broker shall be paid one-half by Landlord and one-half by Tenant. Landlord shall have no obligation to pay a fee or commission to any broker retained by Tenant in connection with Tenant's exercise of a Renewal Option.

(g) If the amount of the Fair Market Value has not been determined pursuant to this Section 2.6 as of the commencement of the Renewal Term, then Tenant shall continue to pay the Base Rent in effect during the last month of the initial Term until the amount of the Fair Market Value is determined. When such determination is made, Tenant shall pay any deficiency to Landlord upon demand.

(h) If Tenant is entitled to and properly exercises its Renewal Option, upon determination of Fair Market Value pursuant to this Section 2.6, Landlord shall prepare an amendment (the "Renewal Amendment") to reflect changes in the Base Rent, Term, Expiration Date and other appropriate terms. The Renewal Amendment shall be sent to Tenant within a reasonable time after determination of Fair Market Value and, provided the same is accurate, Tenant shall execute and return the Renewal Amendment to Landlord within ten (10) days after Tenant's receipt of same, but an otherwise valid exercise of the Renewal Option shall be fully effective whether or not the Renewal Amendment is executed.

2.7 RIGHT OF FIRST OFFER: ADJACENT FLOOR

Subject to the rights of other parties existing as of the Date of Lease ("Superior Rights") as set forth in Schedule 1 attached hereto, commencing upon the Rent Commencement Date and continuing throughout the Term (including the Renewal Term), Tenant shall have the right of first offer ("Right of First Offer", or "ROFO") with respect to no more than one (1) adjacent full floor in the Building which becomes Available for Lease (described below) (the "Offering Space"). Landlord represents and warrants that all Superior Rights are set forth in Schedule 1 attached hereto and incorporated herein. For the avoidance of doubt, Landlord shall have the right to lease any space in the Building at any time prior to the Rent Commencement Date on such terms as Landlord may determine in its sole and absolute discretion regardless of whether such space would otherwise qualify as Special Offering Space if it were Available for Lease as of the Rent Commencement Date. Offering Space shall be deemed to be "Available for Lease" as follows: (i) with respect to any Offering Space that has been leased to a third party tenant prior to the Rent Commencement Date hereunder or that at any time and from time to time thereafter is under lease to a third party tenant, such Offering Space shall be deemed to be Available for Lease when

Landlord has determined that such third party will not extend or renew the term of its lease for the Offering Space (whether or not pursuant to the terms of a renewal option provided for in its lease), no occupant has a Superior Right which is subject to exercise and Landlord is ready to market such space for lease, or (ii) with respect to any Offering Space that is not under lease, such Offering Space shall be deemed to be Available for Lease when Landlord has determined that no occupant has a Superior Right which is subject to exercise and Landlord is ready to market such space for lease. After Landlord has determined that any portion of Offering Space is Available for Lease, Landlord shall advise Tenant (the "ROFO Notice") of the terms under which Landlord is prepared to lease such portion of the Offering Space to Tenant, including, without limitation, description of the space so offered to Tenant and material economic terms and conditions applicable to Tenant's lease of such space (collectively, "First Offer Economic Terms"). Tenant may lease such Offering Space in its entirety only, under such First Offer Economic Terms, by delivering written notice of exercise to Landlord ("ROFO Notice of Exercise") within fifteen (15) days after the date of delivery of the ROFO Notice, except that Tenant shall have no such Right of First Offer and Landlord need not provide Tenant with a ROFO Notice, if: (i) Tenant is in Default under this Lease at the time Landlord would otherwise deliver the ROFO Notice; or (ii) the Premises, or any portion thereof, is sublet (other than pursuant to a Permitted Transfer) at the time Landlord would otherwise deliver the ROFO Notice; or (iii) this Lease has been assigned (other than pursuant to a Permitted Transfer) prior to the date Landlord would otherwise deliver the ROFO Notice; or (iv) either Tenant or Permitted Transferee is not occupying at least fifty percent (50%) of the Premises on the date Landlord would otherwise deliver the ROFO Notice. If Tenant does not accept a ROFO Notice from Landlord pursuant to the above, then Landlord shall have the right to lease all or any portion of the Offering Space to any third party or parties upon such terms as Landlord and such tenant(s) may approve, in their respective sole and absolute discretion.

(a) Terms. The term for the Offering Space shall commence upon the commencement date stated in the ROFO Notice and thereupon such Offering Space shall be considered a part of the Premises, provided that all of the First Offer Economic Terms stated in the ROFO Notice shall govern Tenant's leasing of the Offering Space and only to the extent that they do not conflict with the ROFO Notice, the terms and conditions of this Lease shall apply to the Offering Space.

(b) Limitation on Right of First Offer. The rights of Tenant hereunder with respect to any portion of the Offering Space shall terminate on the earlier to occur of: (i) with respect to any portion of the Offering Space that is the subject of a ROFO Notice, Tenant's failure to exercise its Right of First Offer within the fifteen (15) day period provided in Section 2.7(a) above, and (ii) with respect to any portion of the Offering Space which would otherwise have been the subject of a ROFO Notice, the date Landlord would have provided Tenant a ROFO Notice if Tenant had not been in violation of one or more of the conditions set forth in clauses (i) through (iv) of Section 2.7(a) above. In addition, at any time that Tenant has expanded its Premises beyond 150% of the size set forth in Section 1.1(11) hereof pursuant to the above ROFO process or otherwise, Tenant shall have no further ROFO rights hereunder.

(c) Offering Amendment. If Tenant exercises its Right of First Offer, Landlord shall prepare an amendment (the "Offering Amendment") adding the Offering Space to the Premises on the First Offer Economic Terms and reflecting the changes in the Monthly Base Rent, Rentable Area of the Premises, Tenant's Share, Rent Adjustments and other appropriate terms. A copy of the Offering Amendment shall be (i) sent to Tenant within a reasonable time after receipt of the

ROFO Notice of Exercise executed by Tenant, and (ii) executed by Tenant and returned to Landlord within fifteen (15) days thereafter, but an otherwise valid exercise of the Right of First Offer shall be fully effective whether or not the Offering Amendment is signed.

2.8 SPECIAL RIGHT OF FIRST OFFER

(a) In the Building: Subject to the superior rights of other parties existing as of the date of this Lease (“Special Superior Rights”) as set forth in Schedule 2 attached hereto, for the period commencing January 1, 2020 and ending March 31, 2021 (the “Special ROFO Period”), Tenant shall have the right of first offer (the “Special ROFO”) with respect to any suite in the Building measuring no less than twelve thousand (12,000) rentable square feet nor more than twenty-thousand (20,000) rentable square feet that becomes Available for Lease (described below) (the “Special Offering Space”). Landlord represents and warrants that all Special Superior Rights are set forth in Schedule 2 attached hereto and incorporated herein. For the avoidance of doubt, Landlord shall have the right to lease any space in the Building at any time prior to the commencement of the Special ROFO Period Special on such terms as Landlord may determine in its sole and absolute discretion regardless of whether such space might otherwise qualify as Special Offering Space if it were Available for Lease as of the first day of the Special ROFO Period. Special Offering Space shall be deemed to be “Available for Lease” as follows: (i) with respect to any Special Offering Space that has been leased to a third party tenant prior to the commencement of the Special ROFO Period (or if Landlord has entered into a letter of intent with a prospective third party for the lease of any such space prior to the commencement of the Special ROFO Period), such Special Offering Space shall be deemed to be Available for Lease when Landlord has determined that such third party (i.e., one who has entered into a lease prior to the Special ROFO Period or who has entered into a lease that was the subject of a letter of intent entered into prior to the commencement of the Special ROFO Period) will not extend or renew the term of its lease for the Special Offering Space (whether or not pursuant to the terms of a renewal option provided for in its lease), no occupant has a Special Superior Right which is subject to exercise and Landlord is ready to market such space for lease, or (ii) with respect to any Special Offering Space that is not under lease prior to the commencement of the Special ROFO Period, such Special Offering Space shall be deemed to be Available for Lease when Landlord has determined that no occupant has a Special Superior Right which is subject to exercise and Landlord is ready to market such space for lease. If during the Special ROFO Period, Landlord has determined that any Special Offering Space is Available for Lease, Landlord shall advise Tenant (the “Special ROFO Notice”) of the terms under which Landlord is prepared to lease such Special Offering Space to Tenant, including, without limitation, description of the space so offered to Tenant and material economic terms and conditions applicable to Tenant’s lease of such space (collectively, “Special ROFO Economic Terms”). Tenant may lease such Special Offering Space in its entirety only, under such Special ROFO Economic Terms, by delivering written notice of exercise to Landlord (“Special ROFO Notice of Exercise”) within fifteen (15) days after the date of delivery of the Special ROFO Notice, except that Tenant shall have no such Special Right of First Offer and Landlord need not provide Tenant with a Special ROFO Notice, if: (i) Tenant is in Default under this Lease at the time Landlord would otherwise deliver the Special ROFO Notice; or (ii) the Premises, or any portion thereof, is sublet (other than pursuant to a Permitted Transfer) at the time Landlord would otherwise deliver the Special ROFO Notice; or (iii) this Lease has been assigned (other than

pursuant to a Permitted Transfer) prior to the date Landlord would otherwise deliver the Special ROFO Notice; or (iv) either Tenant or Permitted Transferee is not occupying all of the Premises on the date Landlord would otherwise deliver the Special ROFO Notice. If Tenant does not accept a Special ROFO Notice from Landlord pursuant to the above, then Landlord shall have the right to lease all or any portion of the Special Offering Space to any third party or parties upon such terms as Landlord and such tenant(s) may approve, in their respective sole and absolute discretion.

(i) Terms. The term for the Special Offering Space shall commence upon the commencement date stated in the Special ROFO Notice and thereupon such Special Offering Space shall be considered a part of the Premises, provided that all of the Special ROFO Economic Terms stated in the Special ROFO Notice shall govern Tenant's leasing of the Special Offering Space and only to the extent that they do not conflict with the Special ROFO Notice, the terms and conditions of this Lease shall apply to the Special Offering Space.

(ii) Limitation on Special Right of First Offer. The rights of Tenant hereunder with respect to any Special Offering Space shall terminate on the earlier to occur of: (i) with respect to any Special Offering Space that is the subject of a Special ROFO Notice, Tenant's failure to exercise its Special Right of First Offer within the fifteen (15) day period provided in Section 2.8(a) above, (ii) with respect to any Special Offering Space which would otherwise have been the subject of a Special ROFO Notice, the date Landlord would have provided Tenant a Special ROFO Notice if Tenant had not been in violation of one or more of the conditions set forth in clauses (i) and (iv) of Section 2.8(a) above, or (iii) the expiration of the Special ROFO Period. In addition, at any time that Tenant has expanded its Premises beyond the 150% of the size set forth in Section 1.1(11) hereof, or to an additional floor, pursuant to the above ROFO process outlined in Section 2.7 above or otherwise, Tenant shall have no further Special ROFO rights hereunder.

(iii) Offering Amendment. If Tenant exercises its Special Right of First Offer, Landlord shall prepare an amendment (the "Offering Amendment") adding the Special Offering Space to the Premises on the Special ROFO Economic Terms and reflecting the changes in the Monthly Base Rent, Rentable Area of the Premises, Tenant's Share, Rent Adjustments and other appropriate terms. A copy of the Offering Amendment shall be (i) sent to Tenant within a reasonable time after receipt of the Special ROFO Notice of Exercise executed by Tenant, and (ii) executed by Tenant and returned to Landlord within fifteen (15) days thereafter, but an otherwise valid exercise of the Special Right of First Offer shall be fully effective whether or not the Offering Amendment is signed.

(b) In Property Owned By Landlord Affiliates: During the Special ROFO Period, but only if (i) Landlord has not previously offered Offering Space to Tenant pursuant to Section 2.7, or Special Offering Space to Tenant pursuant to Section 2.8(a), or (ii) a Landlord Affiliate has not previously offered Affiliate Offering Space to Tenant pursuant to this Section 2.8(b), Tenant may request in writing (a "Tenant Affiliate Offering Space Request") that Landlord use commercially-reasonable efforts to cause a Landlord Affiliate that owns office and/or lab property in Emeryville, California (if any, an "Emeryville Affiliate to provide Tenant with an offer ("Affiliate Offer Right") to lease to Tenant any space owned by such an Emeryville Affiliate which measures no less than twelve thousand (12,000) rentable square feet nor more than twenty-thousand (20,000) rentable square feet and is then Available for Lease (described below) (the "Affiliate Offering

Space”). Tenant’s rights hereunder shall be subject to the superior rights of other parties (an “Affiliate Offer Superior Rights”) in any respective Emeryville Affiliate’s property or properties, which superior right(s) may be granted by any Emeryville Affiliate at any time and from time to time. For the avoidance of doubt, any Emeryville Affiliate shall have the right shall have the right to lease any space in a property it owns at any time on such terms as such Emeryville Affiliate may determine in its sole and absolute discretion regardless of whether such space might otherwise qualify as Affiliate Offering Space if it were Available for Lease at the time that Tenant delivers a Tenant Affiliate Offering Space Request. An Affiliate Offering Space shall be deemed to be “Available for Lease” if, at the time that Tenant delivers a Tenant Affiliate Offering Space Request, (i) such space is not then under lease to a third party and the Emeryville Affiliate in question is not then in negotiations with a third party for the lease thereof, (ii) no third party has an Affiliate Offer Superior Right which is subject to exercise, and (iii) the respective Emeryville Affiliate is ready to market such space for lease. If at the time Tenant delivers a Tenant Affiliate Offering Space Request, Landlord determines that an Emeryville Affiliate has Affiliate Offering Space that is Available for Lease, said Emeryville Affiliate may advise Tenant (the “Affiliate Offer Notice”) of the terms under which said Emeryville Affiliate may be prepared to lease such Affiliate Offering Space to Tenant, including, without limitation, description of the space so offered to Tenant and proposed material economic terms and conditions applicable to Tenant’s lease of such space (collectively, “Affiliate Offer Economic Terms”). Tenant may lease such Affiliate Offering Space in its entirety only, under such Affiliate Offer Economic Terms, by delivering written notice of exercise to the appropriate Emeryville Affiliate (“Affiliate Offer Notice of Exercise”) within fifteen (15) days after the date of delivery of the Affiliate Offer Notice, except that Tenant shall have no such Affiliate Offer Right and an Emeryville Affiliate need not provide Tenant with an Affiliate Offer Notice, if: (i) Tenant is in Default under this Lease at the time the Emeryville Affiliate would otherwise deliver the Affiliate Offer Notice; or (ii) the Premises, or any portion thereof, is sublet (other than pursuant to a Permitted Transfer) at the time the Emeryville Affiliate would otherwise deliver the Affiliate Offer Notice; (iii) this Lease has been assigned (other than pursuant to a Permitted Transfer) prior to the date the Emeryville Affiliate would otherwise deliver the Affiliate Offer Notice; or (iv) either Tenant or Permitted Transferee is not occupying all of the Premises on the date the Emeryville Affiliate would otherwise deliver the Affiliate Offer Notice.

(i) Terms. The term for any Affiliate Offering Space shall commence upon the commencement date stated in the Affiliate Offer Notice. Tenant understands and acknowledges that the terms of any accepted Affiliate Offer Notice would require documentation in a new lease between said Emeryville Affiliate and Tenant, the terms of which lease, other than the Affiliate Offer Economic Terms, must be approved by both the Emeryville Affiliate and Tenant in their respective sole and absolute discretions.

(ii) Limitation on Affiliate Offer Right. The Affiliate Offer Right is a one-time only right; and if Tenant does not accept an Affiliate Offer Notice from an Emeryville Affiliate within the fifteen (15) day period provided in Section 2.8(b) above, such right shall terminate. Further, the Affiliate Offer Right shall terminate if and at such time as Landlord is able to offer either Offering Space or Special Offering Space to Tenant pursuant to process outlined in Section 2.7 or 2.8(a) above prior to the expiration of the Special ROFO Period, whether or not Tenant accepts any such offer from Landlord. The Affiliate Offer Right shall also terminate upon the expiration of the Special ROFO Period.

Tenant specifically understands and agrees that, while Landlord has agreed to use its commercially-reasonable efforts to cause an Emeryville Affiliate to follow the Affiliate Offer process outlined above, Landlord's inability or failure to do so shall not constitute a Default under this Lease, and that Tenant shall have no remedy nor cause of action either against Landlord or against any Emeryville Affiliate for such failure or inability on the part of Landlord nor for the failure of any Emeryville Affiliate to make any Affiliate Offer Notice to Tenant or of any Emeryville Affiliate to conclude a lease with Tenant pursuant to terms contained in any Affiliate Offer Notice that Tenant may have accepted via Affiliate Offer Notice of Exercise.

ARTICLE 3

RENT

Tenant shall pay to Landlord at the address specified in Section 1.1(2), or to such other persons, or at such other places designated by Landlord or by electronic funds transfer pursuant to Landlord's written instructions, without any prior demand therefor in immediately available funds and without any deduction or offset whatsoever, Rent, including Monthly Base Rent and Rent Adjustments in accordance with Article 4, during the Term. Monthly Base Rent shall be paid monthly in advance on the first day of each month of the Term, except that the first installment of Monthly Base Rent shall be paid by Tenant to Landlord concurrently with execution of this Lease. Monthly Base Rent shall be prorated for partial months within the Term. Unpaid Rent shall bear interest at the Default Rate from the date Tenant receives a notice of such default due until paid. Tenant's covenant to pay Rent shall be independent of every other covenant in this Lease.

ARTICLE 4

RENT ADJUSTMENTS AND PAYMENTS

4.1 RENT ADJUSTMENTS

From and after the Commencement Date, Tenant shall pay to Landlord Rent Adjustments with respect to each calendar year (or partial calendar year in the case of the year in which the Commencement Date and the Termination Date occur) as follows:

- (a) The Rent Adjustment Deposit representing Tenant's Share of Operating Expenses for the applicable calendar year (or partial calendar year), monthly during the Term with the payment of Monthly Base Rent;
- (b) The Rent Adjustment Deposit representing Tenant's Share of Taxes for the applicable calendar year (or partial calendar year), monthly during the Term with the payment of Monthly Base Rent;
- (c) Any Rent Adjustments due in excess of the Rent Adjustment Deposits in accordance with Section 4.2. Rent Adjustments due from Tenant to Landlord for any Lease Year shall be Tenant's Share of Operating Expenses for such Lease Year and Tenant's Share of Taxes for such Lease Year; and

(d) For purposes of determining Rent Adjustments, if the Building or Property is not fully occupied during all or a portion of any calendar year (or partial calendar year), Landlord shall make appropriate adjustments to the variable components of Operating Expenses for such calendar year (or partial calendar year), employing sound accounting and management principles consistently applied, to determine the amount of Operating Expenses that would have been paid or incurred by Landlord had the Building or Property been fully occupied, and the amount so determined shall be deemed to have been the amount of Operating Expenses for such calendar year (or partial calendar year). In the event that the Property is not fully assessed for all or a portion of any calendar year (or partial calendar year) during the Term, then Taxes shall be adjusted to an amount which would have been payable in such calendar year (or partial calendar year) if the Property had been fully assessed.

4.2 STATEMENT OF LANDLORD

On or before April 1 of each calendar year (or as soon thereafter as practical), Landlord will furnish to Tenant a statement ("Landlord's Statement") respecting the prior calendar year showing the following:

- (a) Operating Expenses and Taxes for such calendar year;
- (b) The amount of Rent Adjustments due Landlord for the last calendar year, less credit for Rent Adjustment Deposits paid, if any; and
- (c) Any change in the Rent Adjustment Deposit due monthly in the current calendar year, including the amount or revised amount due for months preceding any such change pursuant to Landlord's Statement.

Tenant shall pay to Landlord within thirty (30) days after receipt of each Landlord's Statement any amounts for Rent Adjustments then due in accordance with such Landlord's Statement. Any amounts due from Landlord to Tenant pursuant to this Section shall be credited to the Rent Adjustment Deposit next coming due or refunded to Tenant if the Term has expired, provided Tenant is not in Default hereunder. No interest or penalties shall accrue on any amounts that Landlord is obligated to credit or refund to Tenant by reason of this Section 4.2. Landlord's failure to deliver Landlord's Statement or to compute the amount of the Rent Adjustments shall not constitute a waiver by Landlord of its right to deliver such items nor constitute a waiver or release of Tenant's obligations to pay such amounts. The Rent Adjustment Deposit shall be credited against Rent Adjustments due for the applicable calendar year (or partial calendar year). During the last complete calendar year (or partial calendar year) or during any partial calendar year in which this Lease terminates, Landlord may include in the Rent Adjustment Deposit its estimate of Rent Adjustments which may not be finally determined until after the termination of this Lease. Tenant's obligation to pay Rent Adjustments and Landlord's obligation to refund any Rent Adjustment Deposit to Tenant shall survive the expiration or termination of this Lease.

4.3 BOOKS AND RECORDS

Landlord shall maintain books and records showing Operating Expenses and Taxes in accordance with sound accounting and management practices, consistently applied. Tenant or its representative (which representative shall be a certified public accountant licensed to do business in the state in which the Property is located and whose primary business is certified public accounting and who shall not be paid on a contingency basis) shall have the right, for a period of ninety (90) days following the date upon which Landlord's Statement is delivered to Tenant, to examine the Landlord's books and records with respect to the items in the foregoing statement of Operating Expenses and Taxes during normal business hours, upon written notice, delivered at least three (3) business days in advance. Tenant shall pay for all costs of such examination, provided, however, if such examination results in a discrepancy of more than five percent (5%) in the actual Operating Expenses and Taxes from those shown on the Landlord's Statement, such costs shall be reimbursed by Landlord. If Tenant does not object in writing to Landlord's Statement within ninety (90) days of Tenant's receipt thereof, specifying the nature of the item in dispute and the reasons therefor, then Landlord's Statement shall be considered final and accepted by Tenant and Tenant shall be deemed to have waived its right to dispute Landlord's Statement. If Tenant does dispute any item in the Landlord's Statement, Tenant shall give notice of such dispute to Landlord and deliver a copy of any such audit to Landlord at the time of notification of the dispute. If Tenant does not provide such notice of dispute and a copy of such audit to Landlord within such ninety (90) day period, it shall be deemed to have waived such right to dispute Landlord's Statement. Any amount due to Landlord as shown on Landlord's Statement, whether or not disputed by Tenant as provided herein shall be paid by Tenant when due as provided above, without prejudice to any such written exception. In no event shall Tenant be permitted to examine Landlord's records or to dispute any statement of Operating Expenses and Taxes while Tenant is in Default under this Lease. Upon resolution of any dispute with respect to Operating Expenses and/or Taxes, Tenant shall either pay Landlord any shortfall or Landlord shall credit Tenant with respect to any overages paid by Tenant (or promptly pay such amount directly to Tenant, if there are not sufficient months left in the Term to credit such amount to). The records obtained by Tenant shall be treated as confidential and neither Tenant nor any of its representatives or agents (including without limitation any financial or legal consultants) shall disclose or discuss the information set forth in the audit to or with any other person or entity except (a) to Tenant's lawyers and accountants, or (b) as required by applicable law ("Confidentiality Requirement"). Tenant shall indemnify and hold Landlord harmless for any losses or damages arising out of the breach of the Confidentiality Requirement.

4.4 TENANT OR LEASE SPECIFIC TAXES

In addition to Monthly Base Rent, Rent Adjustments, Rent Adjustment Deposits and other charges to be paid by Tenant, Tenant shall pay to Landlord, within thirty (30) days following receipt of written demand, any and all taxes payable by Landlord (other than federal or state inheritance, franchise, general income, gift or estate taxes) whether or not now customary or within the contemplation of the parties hereto: (a) upon, allocable to, or measured by the Rent payable hereunder, including any gross receipts tax or excise tax levied by any governmental or taxing body with respect to the receipt of such rent; or (b) upon or with respect to the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises or any portion thereof; or (c) upon the measured value of Tenant's personal property

located in the Premises or in any storeroom or any other place in the Premises or the Property, or the areas used in connection with the operation of the Property, it being the intention of Landlord and Tenant that, to the extent possible, such personal property taxes shall be billed to and paid directly by Tenant; (d) resulting from any Landlord Work, Tenant Work, Tenant Alterations, or any other improvements to the Premises, whether title thereto is in Landlord or Tenant; or (e) upon this transaction; provided, however, Tenant shall not have any obligation to pay such taxes to the extent they are already included in the calculation of the Operating Expenses for the Project. Taxes paid by Tenant pursuant to this Section 4.4 shall not be included in any computation of Taxes payable pursuant to Sections 4.1 and 4.2.

ARTICLE 5

SECURITY DEPOSIT

Concurrently with the execution of this Lease, Tenant shall pay to Landlord the Security Deposit, in immediately available funds. The Security Deposit may be applied by Landlord to cure, in whole or part, any Default of Tenant under this Lease, and upon notice by Landlord of such application, Tenant shall replenish the Security Deposit in full by paying to Landlord within ten (10) days following receipt of written demand from Landlord the amount so applied. Landlord's application of the Security Deposit shall not constitute a waiver of Tenant's default to the extent that the Security Deposit does not fully compensate Landlord for all losses, damages, costs and expenses incurred by Landlord in connection with such default and shall not prejudice any other rights or remedies available to Landlord under this Lease or by Law. Landlord shall not pay any interest on the Security Deposit. Landlord shall not be required to keep the Security Deposit separate from its general accounts. The Security Deposit shall not be deemed an advance payment of Rent or a measure of damages for any default by Tenant under this Lease, nor shall it be a bar or defense of any action that Landlord may at any time commence against Tenant. In the absence of evidence satisfactory to Landlord of an assignment of the right to receive the Security Deposit or the remaining balance thereof, Landlord may return the Security Deposit to the original Tenant, regardless of one or more assignments of this Lease. Upon the transfer of Landlord's interest under this Lease, Landlord's obligation to Tenant with respect to the Security Deposit shall terminate upon the date Landlord transfers to the transferee of the Security Deposit, or any balance thereof, and such transferee assumes all of Landlord's obligations under this Lease in writing, including, without limitation, those relating to the Security Deposit. If Tenant shall fully and faithfully comply with all the terms, provisions, covenants, and conditions of this Lease, the Security Deposit, or any balance thereof, shall be returned to Tenant within thirty (30) days after Landlord recovers possession of the Premises. Tenant hereby waives any and all rights of Tenant under the provisions of Section 1950.7 of the California Civil Code or other Law regarding the uses to which security deposits may be applied.

If, upon the expiration of the sixth (6th) Lease Year, all of the following are true: a) all Rent due has been paid, b) Tenant is not in Default hereunder, c) Tenant's net worth and liquidity, as calculated pursuant to GAAP, are each not materially less than they were as of the Date of Lease, Landlord agrees that the Security Deposit amount shall be reduced by fifty percent (50%), to become a revised total of \$718,789.00, and the difference of \$718,789.00 shall be returned to Tenant within ten (10) days following the expiration of the sixth (6th) Lease Year. Failure of any of the above to be true at the end of the sixth (6th) Lease Year shall mean the Security Deposit shall remain unchanged in amount for the balance of the Lease Term.

ARTICLE 6

SERVICES

6.1 LANDLORD'S GENERAL SERVICES

(a) So long as this Lease is in full force and effect, Landlord shall furnish the following services the cost of which services shall be included in Operating Expenses or paid directly by Tenant to utility or service provider:

(1) heat, ventilation and air-conditioning ("HVAC") in the Premises during Standard Operating Hours as necessary in Landlord's reasonable judgment for the comfortable occupancy of the Premises under normal business office and laboratory operations, and (ii) outside of Tenant's Standard Operating Hours to minimum safe setback levels for laboratory operations ("After-Hours Setback"), subject to compliance with all applicable mandatory regulations and Laws;

(2) tempered and cold water for normal and customary use in the Premises and in lavatories in common with other tenants from the regular supply of the Building;

(3) customary cleaning and janitorial services in the Common Areas five (5) days per week, excluding National Holidays;

(4) washing of the outside windows in the Premises weather permitting at intervals determined by Landlord; and

(5) automatic passenger elevator service in common with other tenants of the Building and freight elevator service subject to reasonable scheduling by Landlord. Tenant shall have access to the Premises seven (7) days per week, twenty-four (24) hours per day, subject to such reasonable measures and systems for access control and/or tenant identification as exist from time to time at the Building, including, for example only, keys or card-keys for entry which shall be provided to Tenant.

(b) Landlord shall provide a security program for the Building (but not individually for Tenant or the Premises) and Tenant's Parking generally consistent with the standards of comparable office/laboratory buildings in Emeryville. The cost of the security program shall be an Operating Expense. Landlord shall not be liable in any manner to Tenant or any other Tenant Parties for any acts (including criminal acts) of others, or for any direct, indirect, or consequential damages, or any injury or damage to, or interference with, Tenant's business, including, but not limited to, loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, or other loss or damage, bodily injury or death, related to any malfunction, circumvention or other failure of any security program, or for the failure of any security program to prevent bodily injury, death, or property damage, or loss, or to apprehend any person suspected of causing such injury, death, damage or loss.

(c) Upon the Rent Commencement Date, Landlord agrees that in the event of an interruption of power to the Building, Tenant will connect Tenant loads to the emergency generator serving the Building (the "Emergency Generator") on the following conditions: (i) Tenant loads to the Emergency Generator shall in no event exceed Tenant's Share of the kVA capacity of the Emergency Generator Landlord elects to make available for shared use by tenants of the Building; (ii) any use of the Emergency Generator, including the duration of use, shall be subject to the requirements and limitations (if any) imposed by applicable Law; and (iii) in the event of an emergency causing an interruption of power to any portion of the Building, Landlord may, in its reasonable discretion, immediately shed or shut down Tenant loads (an "Emergency Shut Down") to the extent reasonably necessary to redirect the power from the Emergency Generator ("Emergency Generator Power") to the Building's emergency/life-safety systems (e.g., elevators, fire-life safety and emergency lighting). To the extent Landlord's load shedding equipment accommodates shedding Tenant loads in stages, then Landlord shall use commercially reasonable good-faith efforts to shed Tenant loads in a priority which Tenant has delivered to Landlord in writing. As a condition to Tenant's right to connect Tenant loads to the Emergency Generator:

(i) Tenant shall install and maintain, at Tenant's sole cost and expense (the cost of which may be deducted from Tenant Improvement Allowance), a meter (the "Meter"), which shall be designed and configured to capture all Tenant loads connected to the Emergency Generator. Any and all reasonable out of pocket costs and expenses incurred by Landlord in connection with the Emergency Generator, including, without limitation, provisions for load-shedding and shunt trips, fuel and maintenance/repair/replacement costs, shall be an Operating Expense; and

(ii) Landlord shall have the right to require Tenant to install and maintain a shunt trip device ("Shunt Trip Device") designed and configured to automatically shut down Tenant's connection to the Emergency Generator and use of Emergency Generator Power in the event that the generator load for the Building exceeds eighty percent (80%) of the Emergency Generator rating.

(iii) Tenant shall provide Landlord and Landlord's building management staff (the "Building Management Staff") with access to the Meter installed on the Emergency Generator ("EG Meter") during normal business hours with at least 48 hours' advance notice for the purpose of inspection. In the event that Tenant fails to repair the EG Meter within thirty (30) days following receipt of written notice from Landlord thereof, Landlord shall have the right to perform necessary maintenance or repairs thereto, and Tenant shall reimburse Landlord for Landlord's reasonable and customary out-of-pocket costs and expenses in connection therewith within thirty (30) days after Tenant's receipt of Landlord's written demand therefor (which demand shall be accompanied by documentation of the costs and expenses which are the subject of such demand). Landlord shall have the right at any time during the Lease Term to install and maintain additional or separate transfer switches, meters, control devices and shunt trip devices in order to monitor and control Tenant's connection to the Emergency Generator and use of the Emergency Generator Power.

(iv) Notwithstanding anything to the contrary herein, Tenant acknowledges that the Emergency Generator and any transfer switch may be exercised on a periodic basis, such exercise to be conducted by Landlord or the Building Management Staff at Landlord's reasonable discretion. Tenant further acknowledges that annual maintenance procedures require that the Emergency Generator be taken off-line and that an annual full load test be performed on an annual basis, which test shall be conducted by Landlord or the Building Management Staff at Landlord's reasonable discretion; provided, however, Landlord shall give Tenant not less than five (5) business days' prior written notice thereof. Landlord shall not be liable to Tenant, and Tenant shall not be entitled to any abatement of rent or other recourse in the event that Emergency Generator Power is not available for any reason. Landlord's actual out-of-pocket cost of such exercise and testing shall be included in the maintenance costs, of which Tenant shall pay its proportionate share as set forth above in Paragraph 5(f).

(v) Upon the expiration or earlier termination of the Lease Term, Tenant shall surrender and assign to Landlord the Meter with the Premises. In no event shall Tenant be entitled to any reimbursement from Landlord for costs incurred by Tenant in connection with Tenant's installation and maintenance of the Meter.

(vi) The rights granted to Tenant under this Section 6.1(c) are personal to the named Tenant hereunder (and any assignee pursuant to a Permitted Transfer) (each an "Approved User"), and shall only be exercisable by an Approved User so long only one connection exists from the Premises to the Emergency Generator at a time. Any attempt by an Approved User or any of its subtenants or other transferees to make any additional connection from the Premises to the Emergency Generator shall constitute a material breach and default, and Tenant shall reimburse Landlord for all reasonable and customary out-of-pocket costs and expenses incurred by Landlord in connection with curing any such default within ten (10) business days following Tenant's receipt of Landlord's demand therefor accompanied by documentation of such costs and expenses.

(d) So long as this Lease is in full force and effect, Landlord shall furnish to the Premises replacement lamps, bulbs, ballasts and starters used in any normal Building lighting installed in the Premises, except that if the replacement or repair of such items is a result of negligence of Tenant, its employees, agents, servants, licensees, subtenants, contractors or invitees, such cost shall be paid by Tenant within ten (10) days after notice from Landlord and shall not be included as part of Operating Expenses.

(e) If Tenant uses heat generating machines or equipment in the Premises to an extent which materially and adversely affects the temperature otherwise maintained by the air-cooling system or whenever the occupancy or electrical load materially and adversely affects the temperature otherwise maintained by the air-cooling system, and if Tenant fails to eliminate such impact within thirty (30) days following written notice from Landlord, Landlord reserves the right to install or to require Tenant to install supplementary air-conditioning units to service the Premises. Tenant shall bear all reasonable costs and expenses related to the installation, maintenance and operation of such units.

6.2 UTILITIES AND JANITORIAL SERVICES

All utility services used in the production of heating and cooling and air supply and exhaust from the central HVAC systems serving the Building and Premises, including, without limitation, electricity and gas, as well as water and sewer services, shall constitute Operating Expenses. If Landlord so elects, any or all utility services used by Tenant within the Premises, including, without limitation, electricity and gas, shall be paid for by Tenant by separate charge and shall not be included as part of Operating Expenses. Such charges shall be based upon Tenant's usage as measured by a separate meter or sub-meter for the Premises installed by Tenant at Tenant's sole cost and expense (the cost of which may be deducted from Tenant Improvement Allowance), a meter, or as reasonably estimated by Landlord and shall be payable by Tenant to Landlord within 30 days after billing by Landlord. In addition, Tenant shall provide its own janitorial services to the Premises, using a janitorial service reasonably acceptable to Landlord or shall make arrangements with Landlord for Landlord, through Landlord's vendors, to perform such Premises cleaning services, and shall pay the costs thereof directly to Landlord. Notwithstanding any provision of this Lease to the contrary, Tenant shall not make any alterations or additions to the electric equipment or systems, in each instance, without the prior written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed so long as such alterations or additions (i) do not exceed the capacity of the wiring, feeders and risers and (ii) are in compliance with the City's building code. Tenant's use of electric current shall at no time exceed the capacity of the wiring, feeders and risers providing electric current to the Premises or the Building. The consent of Landlord to the installation of electric equipment shall not relieve Tenant from the obligation to limit usage of electricity to no more than such capacity.

6.3 ADDITIONAL AND AFTER HOUR SERVICES

At Tenant's written request, Landlord shall furnish additional quantities of any of the services or utilities specified in Section 6.1, if Landlord can reasonably do so, on the terms set forth herein. For services or utilities requested by Tenant and furnished by Landlord, Tenant shall pay to Landlord as a charge therefor Landlord's prevailing rates charged from time to time for such services and utilities, including, without limitation, HVAC service outside of Standard Operating Hours and beyond After-Hours Setback levels.

6.4 TELEPHONE SERVICES

All telephone, and communication connections which Tenant may desire shall be subject to Landlord's prior written approval, in Landlord's reasonable discretion, and the location of all wires and the work in connection therewith shall be performed by contractors reasonably approved by Landlord, and shall be subject to the direction of Landlord and in compliance with Landlord's then current Building Standards for voice, data and wiring installation. Notwithstanding the foregoing, such approval is not required for Tenant's telephone equipment (including cabling) within the Premises and from the Premises in a route reasonably designated by Landlord to any telephone cabinet or panel provided on Tenant's floor for Tenant's connection to the telephone cable serving the Building so long as Tenant's equipment does not require connections different from or additional to those to the telephone cabinet or panel provided. Tenant shall be responsible for and shall pay all costs incurred in connection with the installation of telephone cables and communication wiring in the Premises, including any hook up, access and maintenance fees related

to the installation of such wires and cables in the Premises and the commencement of service therein, and the maintenance thereafter of such wire and cables; and there shall be included in Operating Expenses for the Building all installation, removal, hook up or maintenance costs incurred by Landlord in connection with telephone cables and communication wiring serving the Building which are not allocable to any individual users of such service but are allocable to the Building generally. If Tenant fails to maintain all telephone cables and communication wiring in the Premises, and such failure adversely affects or interferes with the operation or maintenance of any other telephone cables or communication wiring serving the Building, Landlord or any vendor hired by Landlord may enter into and upon the Premises forthwith and perform such repairs, restorations or alterations as Landlord deems reasonably necessary in order to eliminate any such interference (and Landlord may recover from Tenant all of Landlord's reasonable costs in connection therewith). Tenant agrees that neither Landlord nor any of its agents or employees shall be liable to Tenant, or any of Tenant's employees, agents, customers or invitees or anyone claiming through, by or under Tenant, for any damages, injuries, losses, expenses, claims or causes of action because of any interruption, diminution, delay or discontinuance at any time for any reason in the furnishing of any telephone or other communication service to the Premises and the Building. Notwithstanding the foregoing to the contrary, to the extent such interruption, diminution, delay or discontinuance is caused by the gross negligence or willful misconduct by Landlord, the property manager, the leasing manager for the Property and their respective partners, members, directors, officers, agents and employees, then Tenant shall be entitled, as its sole remedy, to pursue an action for actual damages (but not punitive, consequential, exemplary, treble or special damages) against Landlord. In no event shall Tenant be entitled to any abatement of Rent or the right to terminate this Lease due to any such interruption, diminution, delay or discontinuance.

6.5 DELAYS IN FURNISHING SERVICES

Tenant agrees that Landlord shall not be in breach of this Lease nor be liable to Tenant for damages or otherwise, for any failure to furnish, or a delay in furnishing, or a change in the quantity or character of any service when such failure, delay or change is occasioned, in whole or in part, by repairs, improvements or mechanical breakdowns, by the act or default of Tenant or other parties or by an event of Force Majeure. No such failure, delay or change shall be deemed to be an eviction or disturbance of Tenant's use and possession of the Premises, or relieve Tenant from paying Rent or from performing any other obligations of Tenant under this Lease, without any deduction or offset; provided, however, in the case of any such failure or delay is caused by the gross negligence or willful misconduct of Landlord and the same materially interferes with Tenant's ability to conduct business in the Premises, then unless Landlord is diligently pursuing a remedy, Rent shall be abated commencing on the fifth (5th) consecutive business day following such failure or delay and shall continue until such time as the failure or delay that materially interferes with Tenant's ability to conduct business in the Premises is cured. Failure to any extent to make available, or any slowdown, stoppage, or interruption of, the specified utility services resulting from any cause, including changes in service provider or Landlord's compliance with any voluntary or similar governmental or business guidelines now or hereafter published or any requirements now or hereafter established by any governmental agency, board, or bureau having jurisdiction over the operation of the Property shall not render Landlord liable in any respect for damages to either persons, property, or business, nor be construed as an eviction of Tenant or work an abatement of Rent, nor relieve Tenant of Tenant's obligations for fulfillment of any covenant

or agreement hereof. Notwithstanding the foregoing, Landlord shall make commercially reasonable efforts to provide Tenant with at least three (3) business days' notice of any known, planned interruption in utilities or services. Should any equipment or machinery furnished by Landlord break down or for any cause cease to function properly, Landlord shall use reasonable diligence to repair same promptly, but Tenant shall have no claim for abatement of Rent or damages on account of any interruption of service occasioned thereby or resulting therefrom.

6.6 CHOICE OF SERVICE PROVIDER

Tenant acknowledges that Landlord may, at Landlord's sole option, to the extent permitted by applicable law, elect to change, from time to time, the company or companies which provide services (including electrical service, gas service, water, telephone and technical services) to the Building, the Premises and/or its occupants. Notwithstanding anything to the contrary set forth in this Lease, Tenant acknowledges that Landlord has not and does not make any representations or warranties concerning the identity or identities of the company or companies which provide services to the Building and the Premises or its occupants and Tenant acknowledges that the choice of service providers and matters concerning the engagement and termination thereof shall be solely that of Landlord. The foregoing provision is not intended to modify, amend, change or otherwise derogate any provision of this Lease concerning the nature or type of service to be provided or any specific information concerning the amount thereof to be provided. Tenant agrees to cooperate with Landlord and each of its service providers in connection with any change in service or provider.

6.7 SIGNAGE

(a) Initial Building standard signage for Tenant will be installed by Landlord in the directory in the main lobby of the Building and, in the case of any multi-tenant floor, in the listing of tenants in the elevator lobby for the floor on which the Premises is located, at Landlord's sole cost and expense. In the event Tenant occupies an entire floor of the Building, Tenant may install its own signage in the elevator lobby of such floor, at Tenant's sole cost and expense, and otherwise in accordance with the provisions of Article 9 below. Any change in such initial signage shall be only with Landlord's prior written consent (which shall not be unreasonably withheld, conditioned or delayed), shall conform to Building standard signage and shall be at Tenant's sole cost and expense.

(b) Landlord hereby agrees not to offer exterior, non-exclusive, top of building signage to any other tenant of the Building who has leased two (2) full floors or less without first offering such signage rights to Tenant. Landlord and Tenant hereby agree and acknowledge that if such exterior signage rights are offered by Landlord and accepted by Tenant, Tenant shall pay Landlord the prevailing market rate for such rights, and Landlord and Tenant also agree that the cost to design, secure approvals and permits for, fabricate, install, maintain, repair, remove and restore any such exterior signage shall be at Tenant's sole cost and expense.

ARTICLE 7
POSSESSION, USE AND CONDITION OF PREMISES

7.1 POSSESSION AND USE OF PREMISES

(a) Tenant shall occupy and use the Premises only for the uses specified in Section 1.1(15) to conduct Tenant's business. Tenant shall not occupy or use the Premises (or permit the use or occupancy of the Premises) for any purpose or in any manner which: (1) is unlawful or in violation of any applicable Law or Environmental Law; (2) may be dangerous to persons or property or which may increase the cost of, or invalidate, any policy of insurance carried on the Building or covering its operations; (3) is contrary to or prohibited by the terms and conditions of this Lease or the rules of the Building set forth in Article 18; (4) creates a nuisance, or (5) in any manner that will cause the Building or any part thereof not to conform with the Project's Sustainability Practices or the certification of the Building pursuant to the applicable Green Building Standards; provided, however, that in no event shall such practices or certification requirements have the effect of preventing Tenant from conducting its business at the Premises in a manner consistent with the Permitted Use.

(b) Upon Commencement Date, Landlord shall provide Tenant with 250 Access Card Keys the cost of which shall be paid by Tenant within ten (10) days of Landlord's demand therefor (or at Tenant's election, the cost thereof may be deducted from Tenant Improvement Allowance), and Tenant shall place a deposit for such cards with Landlord to cover lost cards or cards which are not returned at the end of the Term.

(c) Landlord and Tenant acknowledge that the Americans With Disabilities Act of 1990 (42 U.S.C. §12101 et seq.) and regulations and guidelines promulgated thereunder, as all of the same may be amended and supplemented from time to time (collectively referred to herein as the "ADA") establish requirements for business operations, accessibility and barrier removal, and that such requirements may or may not apply to the Premises, the Building and the Project depending on, among other things: (1) whether Tenant's business is deemed a "public accommodation" or "commercial facility", (2) whether such requirements are "readily achievable", and (3) whether a given alteration affects a "primary function area" or triggers "path of travel" requirements. The parties hereby agree that, as between Landlord and Tenant, compliance with any accessibility requirement relating to the Common Area and Landlord Work, on an unoccupied basis, promulgated under the ADA shall be responsibility of Landlord (and not Tenant), except to the extent that any specific compliance is triggered by Tenant's Use in the Premises or any Tenant Alterations, and more specifically, (A) Landlord shall be responsible for ADA Title III compliance in the Common Areas, except as provided below; (B) Tenant shall be responsible for ADA Title III compliance in the Premises, subject to Landlord's obligation to construct all of the Landlord Work in compliance with all applicable Laws (including ADA), on an unoccupied basis and without regard to Tenant's specific use of the Premises, the cost of which compliance shall be a Tenant Improvement Allowance Item (as defined in the Workletter); provided, however, Landlord shall make commercially reasonable efforts to cause such ADA Title III compliance to be at the cost of the Architect, Building Consultants, and/or Contractor (all as defined in the Workletter), to the extent such non-compliance was due to any negligent act or omission on any of their parts; (C) Landlord may perform, or require that Tenant perform, and Tenant shall be responsible for the cost of, ADA Title III "path of travel" requirements triggered

by Tenant Additions in the Premises, and (D) Landlord may perform, or require Tenant to perform, and Tenant shall be responsible for the cost of, ADA Title III compliance in the Common Areas necessitated by the Building being deemed to be a “public accommodation” instead of a “commercial facility” as a result of Tenant’s use of the Premises. Tenant shall be solely responsible for requirements under Title I of the ADA relating to Tenant’s employees.

(d) Civil Code Section 1938. TENANT HEREBY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, THE PROTECTIONS OF CALIFORNIA CIVIL CODE SECTION 1938. IF SUCH WAIVER IS NOT ENFORCEABLE UNDER CALIFORNIA LAW, THEN THE FOLLOWING PROVISIONS SHALL APPLY. The Premises have not been issued a disability access inspection certificate or undergone inspection by a Certified Access Specialist (“CASp”). The following notice is given pursuant to California Civil Code Section 1938: “A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises.” Landlord and Tenant hereby agree that if Tenant elects to perform a CASp inspection of the Premises, Tenant will provide written notice to Landlord, and Landlord may elect, in Landlord’s sole discretion, to retain a CASp to perform the inspection. If Landlord does not so elect, the time and manner of the CASp inspection is subject to the prior written approval of Landlord. In either event, the payment of the fee for the CASp inspection shall be borne by Tenant. The cost of making any repairs necessary to correct violations of construction-related accessibility standards within the Premises shall be allocated as provided in this Article.

(e) Tenant agrees to cooperate and use commercially reasonable efforts to participate in traffic management programs provided to Tenant in writing by Landlord, and Tenant shall encourage and support van, shuttle service, and carpooling by, and staggered and flexible working hours for, its office workers and service employees to the extent reasonably permitted by the requirements of Tenant’s business. Neither this Section or any other provision of this Lease is intended to or shall create any rights or benefits in any other person, firm, company, governmental entity or the public.

(f) Tenant agrees to cooperate with Landlord and to comply with any and all reasonable guidelines or controls concerning energy management and usage disclosure imposed upon Landlord by federal or state governmental organizations or by any energy conservation association to which Landlord is a party or which is applicable to the Building, including, without limitation, the requirements of California’s Nonresidential Building Energy Use Disclosure Program, as more particularly specified in California Public Resources Code Sections 25402.10 *et seq.* and regulations adopted pursuant thereto. Further, Tenant hereby authorizes (and agrees that Landlord shall have the authority to authorize) any electric or gas utility company providing service to the Building to disclose from time to time so much of the data collected and maintained by it regarding Tenant’s energy consumption data as may be necessary to cause the Building to

participate in the ENERGY STAR® Portfolio Manager system and similar programs; and Tenant further authorizes Landlord to disclose information concerning energy use by Tenant, either individually or in combination with the energy use of other tenants, as applicable as Landlord determines to be necessary to comply with applicable Laws pertaining to the Building or Landlord's ownership thereof.

(g) Hazardous Materials.

(1) Definitions. The following terms shall have the following meanings for purposes of this Lease:

(i) "Biohazardous Materials" means any and all substances and materials defined or referred to as "a-medical waste," "biological waste," "biohazardous waste," "biohazardous material" or any other term of similar import under any Hazardous Materials Laws, including (but not limited to) California Health & Safety Code Sections 25105 *et seq.*, and any regulations promulgated thereunder, as amended from time to time.

(ii) "Environmental Condition" means the Release of any Hazardous Materials in, over, on, under, through, from or about the Project (including, but not limited to, the Premises).

(iii) "Environmental Damages" means all claims, suits, judgments, damages, losses, penalties, fines, liabilities, encumbrances, liens, costs and expenses of whatever kind or nature, contingent or otherwise, matured or unmatured, foreseeable or unforeseeable, arising out of or in connection with any Environmental Condition, including, to the extent arising out of an Environmental Condition, without limitation: (A) damages for personal injury, or for injury or damage to the Project or natural resources occurring on or off the Project, including without limitation (1) any claims brought by or on behalf of any person, (2) any loss of, lost use of, damage to or diminution in value of any Project or natural resource, and (3) costs of any investigation, remediation, removal, abatement, containment, closure, restoration or monitoring work required by any federal, state or local governmental agency or political subdivision, or otherwise reasonably necessary to protect the public health or safety, whether on or off the Project; (B) reasonable fees incurred for the services of attorneys, consultants, contractors, experts and laboratories in connection with the preparation of any feasibility studies, investigations or reports or the performance of any work described above; (C) any liability to any third person or governmental agency to indemnify such person or agency for costs expended or liabilities incurred in connection with any items described in clause (A) or (B) above; (D) any fair market or fair market rental value of the Project; and (E) the amount of any penalties, damages or costs a party is required to pay or incur in excess of that which the party otherwise would reasonably have expected to pay or incur absent the existence of the applicable Environmental Condition.

(iv) "Handling" or "Handles", when used with reference to any substance or material, includes (but is not limited to) any receipt, storage, use, generation, Release, transportation, treatment or disposal of such substance or material.

(v) "Hazardous Materials" means any and all chemical, explosive, biohazardous, radioactive or otherwise toxic or hazardous materials or hazardous wastes, including without limitation any asbestos-containing materials, PCB's, CFCs, petroleum and derivatives thereof, Radioactive Materials, Biohazardous Materials, Hazardous Wastes, any other substances

defined or listed as or meeting the characteristics of a hazardous substance, hazardous material, Hazardous Waste, toxic substance, toxic waste, biohazardous material, biohazardous waste, biological waste, medical waste, radiation, radioactive substance, radioactive waste, or other similar term, as applicable, under any law, statute, ordinance, code, rule, regulation, directive, order, condition or other written requirement enacted, promulgated or issued by any public officer or governmental or quasi-governmental authority, whether now in force or hereafter in force at any time or from time to time to protect the environment or human health, and/or any mixed materials, substances or wastes containing more than one of the foregoing categories of materials, substances or wastes.

(vi) “Hazardous Materials Laws” means, collectively, (A) the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. Sections 9601-9657, (B) the Hazardous Materials Transportation Act of 1975, 49 U.S.C. Sections 1801-1812, (C) the Resource Conservation and Recovery Act of 1976, 42 U.S.C. Sections 6901-6987 (together with any amendments thereto, any regulations thereunder and any amendments to any such regulations as in effect from time to time, “**RCRA**”), (D) the California Carpenter-Presley-Tanner Hazardous Substance Account Act, California Health & Safety Code Sections 25300 et seq., (E) the Hazardous Materials Release Response Plans and Inventory Act, California Health & Safety Code Sections 25500 et seq., (F) the California Hazardous Waste Control Law, California Health & Safety Code Sections 25100 et seq. (together with any amendments thereto, any regulations thereunder and any amendments to any such regulations as in effect from time to time, the “**CHWCL**”), (G) California Health & Safety Code Sections 25015-25027.8, (H) any amendments to or successor statutes to any of the foregoing, as adopted or enacted from time to time, (I) any regulations or amendments thereto promulgated pursuant to any of the foregoing from time to time, (J) any Laws relating to Biohazardous Materials, including (but not limited to) any regulations or requirements with respect to the shipping, use, decontamination and disposal thereof, and (K) any other Law now or at any time hereafter in effect regulating, relating to or imposing liability or standards of conduct concerning any Hazardous Materials, including (but not limited to) any requirements or conditions imposed pursuant to the terms of any orders, permits, licenses, registrations or operating plans issued or approved by any governmental or quasi-governmental authority from time to time either on a Project-wide basis or in connection with any Handling of Hazardous Materials in, on or about the Premises or the Project.

(vii) “Hazardous Wastes” means (A) any waste listed as or meeting the identified characteristics of a “hazardous waste” or terms of similar import under RCRA, (B) any waste meeting the identified characteristics of a “hazardous waste”, “extremely hazardous waste” or “restricted hazardous waste” under the CHWCL, and/or (C) any and all other substances and materials defined or referred to as a “hazardous waste” or other term of similar import under any Hazardous Materials Laws.

(viii) “Radioactive Materials” means (A) any and all substances and materials the Handling of which requires an approval, consent, permit or license from the Nuclear Regulatory Commission, (B) any and all substances and materials the Handling of which requires a Radioactive Material License or other similar approval, consent, permit or license from the State of California, and (C) any and all other substances and materials defined or referred to as “radiation,” a “radioactive material” or “radioactive waste,” or any other term of similar import under any Hazardous Materials Laws, including (but not limited to) Title 26, California Code of Regulations Section 17-30100, and any statutes, regulations or other laws administered, enforced or promulgated by the Nuclear Regulatory Commission.

(ix) “Release” means any accidental or intentional spilling, leaking, pumping, pouring, emitting, discharging, injecting, escaping, leaching, migrating, dumping or disposing into the air, land, surface water, groundwater or the environment (including without limitation the abandonment or discarding of receptacles containing any Hazardous Materials).

(x) “Tenant’s Contamination” means any Hazardous Material Release on or about the Property caused by Tenant and/or any agents, employees, contractors, vendors, suppliers, licensees, subtenants, and invitees of Tenant (individually a “Tenant Party” and collectively, “Tenant Parties”).

(xi) “Landlord’s Contamination” means any Hazardous Materials which exist in, on, under or in the vicinity of the Project as of the Commencement Date or which migrate onto or beneath the Project from off-site sources during the Term or after termination of this Lease or which are brought onto the Project during the Term by Landlord and/or any agents, employees, contractors, vendors or licensees of Landlord (collectively with Landlord, “Landlord Parties”). Tenant shall not be required to pay any costs with respect to the remediation or abatement of Landlord’s Contamination.

(2) Handling of Hazardous Materials. The parties acknowledge that Tenant wishes and intends to use all or a portion of the Premises as a bio-pharmaceutical laboratory, research and development and otherwise for the conduct by Tenant of its business in accordance with the use specified in Section 1.1(14), that such use, as conducted or proposed to be conducted by Tenant, would customarily include the Handling of Hazardous Materials, and that Tenant shall therefore be permitted to engage in the Handling in the Premises of necessary and reasonable quantities of Hazardous Materials customarily used in or incidental to the operation of a bio pharmaceutical research, development, preparation and dispensing facility and the other business operations of Tenant in the manner conducted or proposed to be conducted by Tenant hereunder (“Permitted Hazardous Materials”), provided that the Handling of such Permitted Hazardous Materials by all Tenant Parties shall at all times comply with and be subject to all provisions of this Lease and all applicable Laws, including all Hazardous Materials Laws as well as be in compliance with Landlord’s Chemical Control Area Plan for the Building. Without limiting the generality of the foregoing, Tenant shall comply at all times with all Hazardous Materials Laws applicable to any aspect of Tenant’s use of the Premises and the Project and of Tenant’s operations and activities in, on and about the Premises and the Project, and shall ensure at all times that Tenant’s Handling of Hazardous Materials in, on and about the Premises does not violate (x) the terms of any governmental licenses or permits applicable to the Building (including, but not limited to, the Building Discharge Permit as defined below) or Premises or to Tenant’s Handling of any Hazardous Materials therein, or (y) any applicable requirements or restrictions relating to the occupancy classification of the Building and the Premises.

(3) Disposition or Emission of Hazardous Materials. Tenant shall not Release or dispose of any Hazardous Materials, except to the extent authorized by permit, at the Premises or on the Project, but instead shall arrange for off-site disposal, under Tenant's own name and EPA waste generator number (or other similar identifying information issued or prescribed by any other governmental authority with respect to Radioactive Materials, Biohazardous Materials or any other Hazardous Materials) and at Tenant's sole expense, in compliance with all applicable Hazardous Materials Laws, with the Laboratory Rules and Regulations (defined below) and with all other applicable Laws and regulatory requirements.

(4) Information Regarding Tenant's Hazardous Materials. Tenant shall maintain and make available to Landlord the following information and/or documentation within thirty (30) days following written demand:

(i) An inventory of all Hazardous Materials that Tenant receives, uses, handles, generates, transports, stores, treats or disposes of from time to time, or at the time of preparation of such inventory proposes or expects to use, handle, generate, transport, store, treat or dispose of from time to time, in connection with its operations at the Premises. Such inventory shall include, but shall separately identify, any Hazardous Wastes, Biohazardous Materials and Radioactive Materials covered by the foregoing description. If such inventory includes any Biohazardous Materials, Tenant shall also disclose in writing to Landlord the Biosafety Level designation associated with the use of such materials.

(ii) Copies of all then existing permits, licenses, registrations and other similar documents issued by any governmental or quasi-governmental authority that authorize any Handling of Hazardous Materials in, on or about the Premises or the Project by any Tenant Party.

(iii) All Material Safety Data Sheets ("MSDSs"), if any, required to be completed with respect to operations of Tenant at the Premises from time to time in accordance with Title 26, California Code of Regulations Section 8-5194 or 42 U.S.C. Section 11021, or any amendments thereto, and any Hazardous Materials Inventory Sheets that detail the MSDSs.

(iv) All hazardous waste manifests (as defined in Title 26, California Code of Regulations Section 22-66481), if any, that Tenant is required to complete from time to time in connection with its operations at the Premises.

(v) A copy of any "Hazardous Materials Business Plan" required from time to time with respect to Tenant's operations at the Premises pursuant to California Health & Safety Code Sections 25500 et seq., and any regulations promulgated thereunder, as amended from time to time, or in connection with Tenant's application for a business license from the City of Emeryville. If applicable law does not require Tenant to prepare a Hazardous Materials Business Plan, Tenant shall furnish to Landlord at the times and in the manner set forth above the information that would customarily be contained in a Hazardous Materials Business Plan, including (but not limited to) information regarding Tenant's Hazardous Materials inventories. The parties acknowledge that a Hazardous Materials Business Plan would ordinarily include an emergency response plan, and that regardless of whether applicable Law requires Tenant or other tenants in the Building to prepare Hazardous Materials Business Plans, Landlord in its discretion may elect to prepare a coordinated emergency response plan for the entire Building and/or for multiple Buildings on the Project.

(vi) Any “Contingency Plans and Emergency Procedures” required of Tenant from time to time, in connection with its operations at the Premises, pursuant to applicable Law, Title 26, California Code of Regulations Sections 22-67140 et seq., and any amendments thereto, and any “Training Programs and Records” required under Title 26, California Code of Regulations Section 22-66493, and any amendments thereto from time to time. Landlord in its discretion may elect to prepare a Contingency Plan and Emergency Procedures for the entire Building and/or for multiple Buildings on the Project, in which event, if applicable law does not require Tenant to prepare a Contingency Plan and Emergency Procedures for its operations at the Premises, Tenant shall furnish to Landlord at the times and in the manner set forth above the information that would customarily be contained in a Contingency Plan and Emergency Procedures.

(vii) Copies of any biennial or other periodic reports furnished or required to be furnished to the California Department of Health Services from time to time, under applicable law, pursuant to Title 26, California Code of Regulations Section 22-66493 and any amendments thereto, relating to any Hazardous Materials.

(viii) Copies of any industrial wastewater discharge permits issued to or held by Tenant from time to time in connection with its operations at the Premises (the parties presently anticipate, however, that because of the existence of the Building Discharge Permit in Landlord’s name as described above. Tenant will not be required to maintain a separate, individual discharge permit).

(ix) Copies of any other lists, reports, studies, or inventories of Hazardous Materials or of any subcategories of materials included in Hazardous Materials that Tenant is otherwise required to prepare and file from time to time with any governmental or quasi-governmental authority in connection with Tenant’s operations at the Premises, including (but not limited to) reports filed by Tenant with the federal Food & Drug Administration or any other regulatory authorities primarily in connection with the presence (or lack thereof) of any “select agents” or other Biohazardous Materials on the Premises, together with proof of filing thereof.

(x) Any other information reasonably requested by Landlord in writing from time to time in connection with (A) Landlord’s monitoring (in Landlord’s reasonable discretion) and enforcement of Tenant’s obligations under this Section and of compliance with applicable Laws in connection with any Handling or Release of Hazardous Materials in the Premises or Building or on or about the Project by any Tenant Party, (B) any inspections or enforcement actions by any governmental authority pursuant to any Hazardous Materials Laws or any other Laws relating to the presence or Handling of Hazardous Materials in the Premises or Building or on or about the Project by any Tenant Party, and/or (C) Landlord’s preparation (in Landlord’s discretion) and enforcement of any reasonable rules and procedures relating to the presence or Handling by Tenant or any Tenant Party of Hazardous Materials in the Premises or Building or on or about the Project, including (but not limited to) any contingency plans or emergency response plans as described above. Except as otherwise required by applicable Law, Landlord shall keep confidential any information supplied to Landlord by Tenant pursuant to the foregoing, provided, however, that the foregoing shall not apply to any information filed with any governmental authority or available to the public at large. Landlord may provide such information to its lenders, consultants or investors provided such entities agree to keep such information confidential.

(5) Indemnification; Notice of Release. Tenant shall be responsible for and shall indemnify, defend and hold Landlord harmless from and against all Environmental Damages to the extent arising out of or otherwise relating to, (i) any Handling of Hazardous Materials by any Tenant Party in, on or about the Premises or the Project in violation of this Section, (ii) any breach of Tenant's obligations under this Section or of any Hazardous Materials Laws by any Tenant Party, or (iii) the existence of any Tenant Contamination in, on or about the Premises or the Project to the extent caused by any Tenant Party, including without limitation any removal, cleanup, restoration or remediation work and materials necessary to return the Project or any improvements of whatever nature located on the Project to the condition existing prior to the Handling of Hazardous Materials in, on or about the Premises or the Project by any Tenant Party and as required by applicable Laws. In the event of any Tenant Contamination in, on or about the Premises or any other portion of the Project or any adjacent lands, Tenant shall promptly remedy the problem in accordance with all applicable Hazardous Materials Laws and other applicable Laws, shall give Landlord oral notice of any such non-standard or non-customary Release promptly after Tenant becomes aware of such Release, followed by written notice to Landlord within five (5) days after Tenant becomes aware of such Release, and shall furnish Landlord with concurrent copies of any and all notices, reports and other written materials filed by any Tenant Party with any governmental authority in connection with such Release. Tenant shall have no obligation to remedy any Hazardous Materials contamination which was not caused or released by a Tenant Party.

(6) Governmental Notices. Tenant shall promptly provide Landlord with copies of all notices received by Tenant relating to any actual or alleged presence or Handling by any Tenant Party of Hazardous Materials in, on or about the Premises or any other portion of the Project, including, without limitation, any notice of violation, notice of responsibility or demand for action from any federal, state or local governmental authority or official in connection with any actual or alleged presence or Handling by any Tenant Party of Hazardous Materials in or about the Premises or any other portion of the Project.

(7) Inspection by Landlord. In addition to, and not in limitation of, Landlord's rights under this Lease, upon reasonable prior request by Landlord (of no less than one (1) business day's notice), Tenant shall grant Landlord and its consultants, as well as any governmental authorities having jurisdiction over the Premises or over any aspect of Tenant's use thereof, reasonable access to the Premises at reasonable times to inspect Tenant's Handling of Hazardous Materials in, on and about the Premises, and Landlord shall not thereby incur any liability to Tenant or be deemed guilty of any disturbance of Tenant's use or possession of the Premises by reason of such entry; provided, however, that Landlord shall use reasonable efforts to minimize interference with Tenant's use of the Premises caused by such entry. Landlord shall comply with any safety and security precaution reasonably imposed by Tenant during any entry onto the Premises (which may include, without limitation, requiring escort by a Tenant representative at all times except during an emergency) and shall minimize to the extent reasonably possible any interference with Tenant's use of the Premises caused by such entry. Notwithstanding Landlord's rights of inspection and review of documents, materials and physical conditions under this Section with respect to Tenant's Handling of Hazardous Materials, Landlord shall have no duty or obligation to perform any such inspection or review or to monitor in any way any documents, materials, physical conditions or compliance with applicable Laws in connection with Tenant's Handling of Hazardous Materials, and no third party shall be entitled to rely on Landlord to conduct any such inspection, review or monitoring by reason of the provisions of this Section.

(8) Monitoring by Landlord. Landlord reserves the right to monitor, in Landlord's reasonable discretion and at Landlord's cost (the reasonable cost of which shall be recoverable as an Operating Expense (except in the case of a breach of any of Tenant's obligations under this Section, in which event such monitoring costs may be charged back entirely to Tenant and shall be reimbursed by Tenant to Landlord within ten (10) business days after written demand by Landlord from time to time, accompanied by supporting documentation reasonably evidencing the costs for which such reimbursement is claimed), at such times and from time to time as Landlord in its reasonable discretion may determine, through consultants engaged by Landlord or otherwise as Landlord in its reasonable discretion may determine, (x) all aqueous and atmospheric discharges and emissions from the Premises during the Term by a Tenant Party, (y) Tenant's compliance and the collective compliance of all tenants in the Building with requirements and restrictions relating to the occupancy classification of the Building (including, but not limited to, Hazardous Materials inventory levels of Tenant and all other tenants in the Building), and (z) Tenant's compliance with all other requirements of this Section.

(9) Discovery of Discharge. If Landlord, Tenant or any governmental or quasi-governmental authority discovers any Release from the Premises during the Term caused by a Tenant Party in violation of this Section that, in Landlord's reasonable determination, jeopardizes the ability of the Building or the Project to meet applicable Laws or otherwise adversely affects the Building's or the Project's compliance with applicable discharge or emission standards, or if Landlord discovers any other breach of Tenant's obligations under this Section, then upon receipt of written notice from Landlord or at such earlier time as Tenant obtains actual knowledge of the applicable discharge, emission or breach, Tenant at its sole expense shall within a reasonable time (x) in the case of a Release caused by a Tenant Party in violation of this Lease, cease the applicable discharge or emission and remediate any continuing effects of the discharge or emission until such time, if any, as Tenant demonstrates to Landlord's reasonable satisfaction that the applicable discharge or emission is in compliance with all applicable Laws and any other applicable regulatory commitments and obligations to the satisfaction of the appropriate governmental agency with jurisdiction over the Release, and (y) in the case of any other breach of Tenant's obligations under this Section, take such corrective measures as Landlord may reasonably request in writing in order to cure or eliminate the breach as promptly as practicable and to remediate any continuing effects of the breach.

(10) Post-Occupancy Study. No later than thirty (30) days prior to the Termination Date, Tenant at its sole cost and expense, shall obtain and deliver to Landlord an environmental study, performed by an expert reasonably satisfactory to Landlord, evaluating, the presence or absence of any Tenant Contamination in, on and about the Premises and the Project. Such study shall be based on a reasonable and prudent level of tests and investigations of the Premises and surrounding portions of the Project (if appropriate) and, if applicable, as required by governing regulatory agencies or bodies for such closure, which tests shall be conducted no earlier than thirty (30) days prior to the Termination Date. Liability for any remedial actions required or recommended on the basis of such study shall be allocated in accordance with the applicable provisions of this Lease. To the extent any such remedial actions are the responsibility of Tenant, Tenant at its sole expense shall promptly commence and diligently pursue to completion the required remedial actions.

(11) Emergency Response Plans. If Landlord in its reasonable discretion adopts any emergency response plan and/or any Contingency Plan and Emergency Procedures for the Building or for multiple Buildings on the Project as contemplated above, Landlord shall provide copies of any such plans and procedures to Tenant and, so long as such plans and procedures are reasonable, comply with applicable Laws, do not unreasonably interfere with Tenant's use of or access to the Premises or materially increase the cost incurred by Tenant with respect to the Premises. Tenant shall comply with all of the requirements of such plans and procedures to the extent applicable to Tenant and/or the Premises. If Landlord elects to adopt or materially modify any such plans or procedures that apply to the Building during the Term, Landlord shall consult with Tenant, and Tenant shall cooperate, in the preparation of such plans, procedures or modifications in efforts to accurately reflect and maintain consistency with Tenant's operations in the Premises, but Landlord alone shall determine, in its good faith reasonable discretion, the appropriate scope of such consultation and nothing in this paragraph shall be construed to give Tenant any right of approval or disapproval over Landlord's adoption or modification of any such plans or procedures so long as such plans and procedures are reasonable. do not unreasonably interfere with Tenant's use of or access to the Premises or materially increase the cost incurred by Tenant with respect to the Premises.

(12) Radioactive Materials. Without limiting any other applicable provisions of this Section, if Tenant Handles or proposes to Handle any Radioactive Materials in or about the Premises, Tenant shall provide Landlord with copies of Tenant's licenses or permits for such Radioactive Materials and with copies of all radiation protection programs and procedures required under applicable Laws or otherwise adopted by Tenant from time to time in connection with Tenant's Handling of such Radioactive Materials. In addition, Tenant shall comply with any and all rules and procedures issued by Landlord in its good faith discretion from time to time with respect to the Handling of Radioactive Materials on the Project (such as, by way of example but not limitation, rules implementing a label defacement program for decayed waste destined for common trash and/or rules relating to transportation and storage of Radioactive Materials on the Project), provided that such rules and procedures shall be reasonable and not in conflict with any applicable Laws.

(13) Deemed Holdover Occupancy. Notwithstanding any other provisions of this Lease, Tenant expressly agrees as follows:

(i) If Tenant Handles any Radioactive Materials in or about the Premises or the Project during the Term, then for so long as any license or permit relating to such Radioactive Materials remains open following the Termination Date, and another entity handling Radioactive Materials which is a prospective tenant of Landlord is legally prohibited from occupying a portion of the Premises for a use similar to Tenant's use, then Tenant shall be deemed to be occupying that portion of the Premises on a holdover basis without Landlord's consent (notwithstanding such otherwise applicable termination or expiration of the Term) and shall be required to continue to pay Rent and other charges in accordance with Article 13 solely for that portion of the Premises effected by the radioactive materials license, until such time as all such Radioactive Materials licenses and permits have been fully closed out in accordance with the requirements of this Lease and with all applicable Hazardous Materials Laws and other Laws.

(ii) If Tenant Handles any Hazardous Materials in or about the Premises or the Project during the Term and, on or before the Termination Date, has failed to remove from the Premises or the Project all known Hazardous Materials Handled by a Tenant Party or has failed to complete any remediation or removal of Tenant's Contamination and/or to have fully remediated in compliance with the requirements of this Lease and with all applicable Hazardous Materials Laws and any other applicable Laws, the Tenant's Handling and/or Release (if applicable) of any such Hazardous Materials during the Term, then for so long as such circumstances continue to exist, Tenant shall be deemed to be occupying the Premises on a holdover basis without Landlord's consent (notwithstanding such otherwise applicable termination or expiration of the Term) and shall be required to continue to pay Rent and other charges in accordance with Article 13 until such time as all such circumstances have been fully resolved in accordance with the requirements of this Lease and with all applicable Hazardous Materials Laws and other Laws.

(14) Survival of Obligations. Each party's obligations under this Section shall survive the Termination Date and shall survive any conveyance by Landlord of its interest in the Premises. The provisions of this Section and any exercise by either party of any of the rights and remedies contained herein shall be without prejudice to any other rights and remedies that such party may have under this Lease or under applicable Law with respect to any Environmental Conditions and/or any Hazardous Materials. Either party's exercise or failure to exercise, at any time or from time to time, any or all of the rights granted in this Section shall not in any way impose any liability on such party or shift from the other party to such party any responsibility or obligation imposed upon the other party under this Lease or under Hazardous Materials Laws, Environmental Conditions and/or compliance with applicable Laws.

(15) Laboratory Rules and Regulations. Tenant agrees for itself and for its subtenants, employees, agents, and invitees to comply with the laboratory rules and regulations ("Laboratory Rules and Regulations") attached to this Lease as Exhibit C-1 and with all reasonable modifications and additions thereto which Landlord may make from time to time.

7.2 LANDLORD ACCESS TO PREMISES; APPROVALS

(a) Tenant shall permit Landlord to erect, use and maintain pipes, ducts, wiring and conduits in and through the Premises, so long as Tenant's use, layout or design of the Premises is not materially affected or altered. Landlord or Landlord's agents shall have the right to enter upon the Premises (i) to perform scheduled janitorial and other routine services or (ii) in the event of an emergency, or (ii) upon not less than 48 hours' prior notice, to inspect the Premises, to conduct safety and other testing in the Premises, and to make such repairs, alterations, improvements or additions to the Premises or the Building or other parts of the Property as Landlord may deem necessary or desirable (including all alterations, improvements and additions in connection with a change in service provider or providers) during reasonable times, in all cases, subject to the terms and conditions set forth in this Lease. Janitorial and cleaning services shall be performed after Standard Operating Hours. Any entry or work by Landlord may be during Standard Operating Hours and Landlord shall use reasonable efforts to ensure that any entry or work shall not materially interfere with Tenant's access to, use and occupancy of the Premises.

(b) Advance notice shall not be required for entry to perform routine janitorial and cleaning services or for entry in the event of an emergency or urgent situation, as reasonably determined by Landlord, but any other entry or work by Landlord shall be upon at least two (2) business day's prior notice to Tenant, which notice may be delivered orally or by e-mail to Tenant's on-site manager at the Premises. If Tenant shall not be personally present to permit an entry into the Premises when for any reason an entry therein shall be necessary or permissible, Landlord (or Landlord's agents), after notifying Tenant (unless Landlord believes an emergency situation exists), may enter the Premises without rendering Landlord or its agents liable therefor, and without relieving Tenant of any obligations under this Lease.

(c) Subject to the entry requirements set forth in this Section 7.1(g)(7), Landlord may enter the Premises for the purpose of conducting such inspections, tests and studies as Landlord may deem reasonably desirable or necessary to confirm Tenant's compliance with all Laws and Hazardous Materials Laws or for other purposes necessary in Landlord's reasonable judgment to ensure the sound condition of the Property and the systems serving the Property. Landlord's rights under this Section 7.2(c) are for Landlord's own protection only, and Landlord has not, and shall not be deemed to have assumed, any responsibility to Tenant or any other party as a result of the exercise or non-exercise of such rights, for compliance with Laws or Hazardous Materials Laws or for the accuracy or sufficiency of any item or the quality or suitability of any item for its intended use.

(d) Landlord may do any of the foregoing, or undertake any of the inspection or work described in the preceding paragraphs without such action constituting an actual or constructive eviction of Tenant, in whole or in part, or giving rise to an abatement of Rent by reason of loss or interruption of business of Tenant, or otherwise; provided that such activities are conducted in accordance with the requirements under this Lease.

(e) The review, approval or consent of Landlord with respect to any item required or permitted under this Lease is for Landlord's own protection only, and Landlord has not, and shall not be deemed to have assumed, any responsibility to Tenant or any other party, as a result of the exercise or non-exercise of such rights, for compliance with Laws or Hazardous Materials Laws or for the accuracy or sufficiency of any item or the quality or suitability of any item for its intended use.

7.3 QUIET ENJOYMENT

Landlord covenants, in lieu of any implied covenant of quiet possession or quiet enjoyment, that so long as Tenant is in compliance with the covenants and conditions set forth in this Lease, Tenant shall have the right to quiet enjoyment of the Premises without hindrance or interference from Landlord or those claiming through Landlord, and subject to the covenants and conditions set forth in this Lease and to the rights of any Mortgagee or ground lessor.

7.4 TENANT ACKNOWLEDGMENTS REGARDING PROPERTY

(a) The Property is situated in the City of Emeryville (“City”) in a mixed-use area that includes, among other possible uses permitted by the City, residential, commercial, manufacturing, industrial and laboratory/research uses. In recognition of such mixed-use character of area in which the Property is located, as a condition of the approval of the development of the Building on the Property, the City has required that Landlord disclose to tenants of the Building that:

- (1) industrial and laboratory/research uses located in nearby buildings have the potential to emit noise at levels and during hours of the day that persons may find disturbing;
- (2) nearby manufacturing, industrial and laboratory/research uses may generate odor;
- (3) at times there may be substantial truck traffic in the area;
- (4) there is a mainline railroad in the vicinity of the Property that operates 24 hours per day, seven days per week, with associated train horns and other sounds and vibration;
- (5) future development in the vicinity of the Property may block views from the Building; and
- (6) the site on which the Building is built formerly contained hazardous materials; under the direction of the Environmental Protection Agency and the State Department of Toxic Substances Control (the “Agencies”), remediation and abatement measures have been undertaken to address potential health risks associated with such hazardous materials; and the documents relating to the remediation and abatement measures at the Property are on file at Landlord’s property management office and at the offices of the Agencies (the parties acknowledge that this clause (6) constitutes the notice required by Cal. Health and Safety Code Section 25359.7).

Tenant acknowledges the foregoing disclosures required to be made by Landlord regarding the mixed-use character of the area in which the Property is located.

(b) As required by the terms of that certain Covenant and Restriction referenced hereinbelow, the following notice regarding the land upon which the 6100 Horton Street parking garage is situated is provided:

“The land described herein [i.e., the land upon which the Parking Garage is located] contains polychlorinated biphenyls (PCBs) in soil and volatile organic compounds in groundwater under the Burdened Property referred to as “Emery Station West Parking Garage”, and is subject to a deed restriction dated as of August 11, 2016, and recorded on August 19, 2016, in the Official Records of Alameda County, California, as Document No. 2016210925, which Covenant and Restriction imposes certain covenants, conditions, and restrictions on usage of the property described herein. This statement is not a declaration that a hazard exists.”

(c) During the Lease Term, Landlord shall provide Tenant and its employees reasonable access to any shared lockers and showers serving the Building and other properties owned by Landlord or Landlord’s Affiliates, such access to be free of charge other than for charges customarily charged to all tenants and employees.

7.5 TRANSPORTATION DEMAND MANAGEMENT PROGRAM

Landlord may elect or may be required to develop and implement a Transportation Demand Management (“TDM”) program for the Building in order to reduce the traffic-related impacts resulting from development of the Property. One element of any such TDM program will require tenants of the Building to adopt programs and offer incentives to their employees to reduce auto use and support the increase of alternative modes of transit. The following are examples of such programs and incentives:

- Alternative commute subsidies and/or parking cash-out, where employees are provided with a subsidy if they use transit or commute by alternative modes;
- Opportunities to purchase commuter checks which allow employees to purchase transit tickets at discounted rates from their before-tax income; and
- Compressed work weeks and flex time where employees adjust their work schedules to reduce peak hour trips to/from the Building.

In order to support any such TDM program for the Building, Tenant agrees that it shall use commercially reasonable efforts to adopt programs and offer incentives to its employees in order to reduce auto use and support the increase of alternative modes of transit. The specifics of Tenant’s programs and incentives shall be tailored to the needs of Tenant’s workforce and shall be determined by Tenant in its good faith efforts to meet the goals of the TDM program. Upon request by Landlord from time to time, but not more often than once per calendar year, Tenant shall provide to Landlord a written report summarizing the programs and incentives being offered by Tenant to achieve the goals of the TDM program.

ARTICLE 8

MAINTENANCE

8.1 LANDLORD’S MAINTENANCE

Subject to the provisions of Articles 4 and 14, Landlord shall, as an Operating Expense, maintain and make necessary repairs to the foundations, roofs, exterior walls, and the structural elements of the Building, the electrical, plumbing, heating, ventilating, air-conditioning, mechanical, communication, security and the fire and life safety systems of the Building and those corridors, washrooms and lobbies which are Common Areas of the Building, except that: (a) Landlord shall not be responsible for the maintenance or repair of any floor or wall coverings in the Premises or any of such systems which are located within the Premises and are supplemental or special to the Building’s standard systems; and (b) the cost of performing any of said maintenance or repairs whether to the Premises or to the Building caused by the negligence of Tenant, its employees, agents, servants, licensees, subtenants, contractors or invitees, shall be paid by Tenant, subject to the waivers set forth in Section 16.4. Landlord shall not be liable to Tenant for any expense, injury, loss or damage resulting from work done in or upon, or in connection with the use of, any adjacent or nearby building, land, street or alley. Notwithstanding the foregoing to the contrary, to the extent such expense, injury, loss or damage is caused by the gross negligence or willful misconduct by Landlord, the property manager, the leasing manager for the Property

and their respective partners, members, directors, officers, agents and employees, then Tenant shall be entitled, as its sole remedy, to pursue an action for actual damages (but not punitive, consequential, exemplary, treble or special damages) against Landlord. In no event shall Tenant be entitled to any abatement of Rent or the right to terminate this Lease due to any such expense, injury, loss or damage.

8.2 TENANT'S MAINTENANCE

Tenant shall periodically inspect the Premises to identify any conditions that are dangerous or in need of maintenance or repair. Tenant shall promptly provide Landlord with notice of any such conditions. Tenant shall, at its sole cost and expense, perform all maintenance and repairs to the Premises that are not Landlord's express responsibility under this Lease, and keep the Premises in good condition and repair, reasonable wear and tear and damages from casualty excepted. Tenant's repair and maintenance obligations include, without limitation, repairs to: (a) floor covering; (b) interior partitions; (c) doors; (d) the interior side of demising walls; (e) electronic, phone and data cabling, wiring and related equipment that is installed by or for the exclusive benefit of Tenant (collectively, "Cable"); (f) supplemental air conditioning units, kitchens, including hot water heaters, plumbing, and similar facilities exclusively serving Tenant; and (g) Tenant Alterations. To the extent Landlord is not reimbursed by insurance proceeds, Tenant shall reimburse Landlord for the cost of repairing damage to the Building caused by the acts of Tenant, Tenant Parties and their respective contractors and vendors. All maintenance and repairs, including, but not limited to, janitorial and cleaning services, pest control and waste management and recycling performed by or on behalf of Tenant must comply with the Project's Sustainability Practices and the applicable Green Building Standards. If Tenant fails to make any repairs to the Premises for more than thirty (30) days after notice from Landlord (although notice shall not be required in an emergency), Landlord may make the repairs, and Tenant shall pay the reasonable cost of the repairs, together with an administrative charge in an amount equal to 10% of the cost of the repairs. Tenant hereby waives all right to make repairs at the expense of Landlord or in lieu thereof to vacate the Premises and its other similar rights as provided in California Civil Code Sections 1932(1), 1941 and 1942 or any other Laws (whether now or hereafter in effect). In addition to the foregoing, Tenant shall be responsible for repairing all special tenant fixtures and improvements, including garbage disposals, showers, plumbing, and appliances.

ARTICLE 9

ALTERATIONS AND IMPROVEMENTS

9.1 TENANT ALTERATIONS

(a) The following provisions shall apply to the completion of any Tenant Alterations:

(1) Tenant shall not, except as provided herein, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed, make or cause to be made any Tenant Alterations in or to the Premises or any Building Systems serving the Premises. Prior to making any Tenant Alterations, Tenant shall give Landlord ten (10) days' prior written notice (or such earlier notice as would be necessary pursuant to applicable Law) to permit Landlord sufficient time to post appropriate notices of non-responsibility. Subject to all other requirements of this Article 9, Tenant may undertake Decoration work without Landlord's

prior written consent. Tenant shall furnish Landlord with the names and addresses of all contractors and subcontractors and copies of all contracts. All Tenant Alterations shall be completed at such time and in such manner as Landlord may from time to time designate, and only by contractors or mechanics approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed; provided, however, that Landlord may, in its sole discretion, specify the engineers and contractors to perform all work relating to the Building's Systems (including the mechanical, heating, plumbing, security, ventilating, air-conditioning, electrical, communication and the fire and life safety systems in the Building). The contractors, mechanics and engineers who may be used are further limited to those whose work will not cause or threaten to cause disharmony or unreasonable interference with Landlord or other tenants in the Building and their respective agents and contractors performing work in or about the Building. Landlord may further condition its consent upon Tenant furnishing to Landlord and Landlord approving prior to the commencement of any work or delivery of materials to the Premises related to the Tenant Alterations such of the following as specified by Landlord (only to the extent applicable and applicable to the type of Tenant Alterations proposed by Tenant): architectural plans and specifications, opinions from Landlord's engineers stating that the Tenant Alterations will not in any way adversely affect the Building's systems, necessary permits and licenses, certificates of insurance, and such other documents in such form reasonably requested by Landlord. Landlord may, in the exercise of reasonable judgment, request that Tenant provide Landlord with appropriate evidence of Tenant's ability to complete and pay for the completion of the Tenant Alterations such as a performance bond or letter of credit for any Tenant Alterations which are expected to cost more than Five Hundred Thousand Dollars (\$500,000). Upon completion of the Tenant Alterations, Tenant shall deliver to Landlord an as-built mylar and digitized (if available) set of plans and specifications for the Tenant Alterations.

(2) Tenant shall pay the cost of all Tenant Alterations and the cost of decorating the Premises and any work to the Property occasioned thereby. Upon completion of Tenant Alterations, Tenant shall furnish Landlord with contractors' affidavits and full and final waivers of lien and receipted bills covering all labor and materials expended and used in connection therewith and such other documentation reasonably requested by Landlord or Mortgagee.

(3) Tenant agrees to complete all Tenant Alterations (i) in accordance with all Laws, Hazardous Materials Laws, all requirements of applicable insurance companies and in accordance with Landlord's standard construction rules and regulations, (ii) in a good and workmanlike manner with the use of good grades of materials, and (iii) in accordance with the requirements of the Project's Sustainability Practices and comply with the applicable Green Building Standards. Tenant shall notify Landlord immediately if Tenant receives any notice of violation of any Law in connection with completion of any Tenant Alterations and shall immediately take such steps as are necessary to remedy such violation. In no event shall such supervision or right to supervise by Landlord nor shall any approvals given by Landlord under this Lease constitute any warranty by Landlord to Tenant of the adequacy of the design, workmanship or quality of such work or materials for Tenant's intended use or of compliance with the requirements of Section 9.1(a)(3)(i) and (ii) above or impose any liability upon Landlord in connection with the performance of such work.

(b) All Tenant Additions, whether installed by Landlord or Tenant, shall without compensation or credit to Tenant, become part of the Premises and the property of Tenant at the time of their installation and shall remain in the Premises, unless pursuant to Article 12, Tenant may remove them or is required to remove them at Landlord's request. Any remaining Tenant Additions and Landlord Work shall become the property of Landlord at the expiration or termination of this Lease. For the avoidance of doubt, Tenant shall retain the right to depreciation deductions of all Tenant Alterations made at Tenant's expense.

9.2 LIENS

Tenant shall not permit any lien or claim for lien of any mechanic, laborer or supplier or any other lien to be filed against the Building, the Land, the Premises, or any other part of the Property arising out of work performed, or alleged to have been performed by, or at the direction of, or on behalf of Tenant; provided that Tenant shall have no obligation for liens or encumbrances caused by Landlord even if such liens or encumbrances arise out of work done on behalf of or for the benefit of Tenant. If any such lien or claim for lien is filed, Tenant shall within twenty (20) days of receiving notice of such lien or claim (a) have such lien or claim for lien released of record or (b) deliver to Landlord a bond in form, content, amount, and issued by surety, reasonably satisfactory to Landlord, indemnifying, protecting, defending and holding harmless the Indemnitees against all costs and liabilities resulting from such lien or claim for lien and the foreclosure or attempted foreclosure thereof. If Tenant fails to take any of the above actions, Landlord, in addition to its rights and remedies under Article 11, without investigating the validity of such lien or claim for lien, may pay or discharge the same and Tenant shall, as payment of additional Rent hereunder, reimburse Landlord upon demand for the amount so paid by Landlord, including Landlord's expenses and reasonable attorneys' fees.

ASSIGNMENT AND SUBLETTING

10.1 ASSIGNMENT AND SUBLETTING

(a) Subject to Landlord's recapture right set forth in Section 10.2, without the prior written consent of Landlord, which consent of Landlord shall not be unreasonably withheld, conditioned or delayed, Tenant may not sublease, assign, mortgage, pledge, hypothecate or otherwise transfer or permit the transfer of this Lease or the encumbering of Tenant's interest therein in whole or in part, by operation of Law or otherwise or permit the use or occupancy of the Premises, or any part thereof, by anyone other than Tenant. Tenant agrees that the provisions governing sublease and assignment set forth in this Article 10 shall be deemed to be reasonable. If Tenant desires to enter into any sublease of the Premises or assignment of this Lease, Tenant shall deliver written notice thereof to Landlord ("Tenant's Notice"), together with the identity of the proposed subtenant or assignee and the proposed principal terms thereof and financial and other information sufficient for Landlord to make an informed judgment with respect to such proposed subtenant or assignee at least thirty (30) days prior to the commencement date of the term of the proposed sublease or assignment. If Tenant proposes to sublease a portion of the Premises containing more than 3,000 rentable square feet, the space proposed to be sublet and the space retained by Tenant must each be a marketable unit as reasonably determined by Landlord and otherwise in compliance with all Laws. Landlord shall notify Tenant in writing of its approval or disapproval of the proposed sublease or assignment or its decision to exercise its rights under Section 10.2 within ten (10) business days after receipt of Tenant's Notice (and all required information). In the event Landlord fails to respond to Tenant's Notice within such ten (10) day period, then Tenant may deliver to Landlord a second (2nd) written request, which must contain the following inscription, in bold faced lettering: "SECOND NOTICE DELIVERED PURSUANT TO SECTION 10.1 OF THE LEASE - - FAILURE TO TIMELY RESPOND WITHIN THREE (3) BUSINESS DAYS SHALL RESULT IN DEEMED APPROVAL OF PROPOSED TRANSFER." If Landlord fails to respond within such three (3) business day period, then Landlord shall be deemed to have approved the proposed transfer that was the subject of such Tenant Notice. Tenant shall submit for Landlord's approval (which approval shall not be unreasonably withheld, conditioned or delayed) any advertising which Tenant or its agents intend to use with respect to the space proposed to be sublet.

(b) With respect to Landlord's consent to an assignment or sublease, Landlord may take into consideration any factors that Landlord may deem relevant in its commercially reasonable judgment, and the reasons for which Landlord's denial shall be deemed to be reasonable shall include, without limitation, the following:

- (i) the business reputation or creditworthiness of any proposed subtenant or assignee is not acceptable to Landlord; or
- (ii) in Landlord's reasonable judgment the proposed assignee or sublessee would diminish the value or reputation of the Project or Landlord; or

(iii) any proposed assignee's or sublessee's use of the Premises would violate Section 7.1 of this Lease or would violate the provisions of any other leases of tenants in the Project; or

(iv) the proposed sublessee or assignee is a bona fide prospective tenant of Landlord in the Project as demonstrated by a written proposal dated within six (6) months prior to the date of Tenant's request and Landlord has vacancy in the Project of a similar size and finish as the space subject to such proposed sublease or assignment; or

(v) the proposed sublessee or assignee would materially increase the estimated pedestrian and vehicular traffic to and from the Premises and the Project above that deemed typical by Landlord for office/lab use in the Project; or

(vi) a Default by Tenant under this Lease shall be continuing.

(c) Any sublease or assignment shall be expressly subject to the terms and conditions of this Lease. Any subtenant or assignee shall execute such commercially reasonable and customary documents as Landlord may reasonably require to evidence such subtenant or assignee's assumption of the obligations and liabilities of Tenant under this Lease. Tenant shall deliver to Landlord a copy of all agreements executed by Tenant and the proposed subtenant and assignee with respect to the Premises. Landlord's approval of a sublease, assignment, hypothecation, transfer or third party use or occupancy shall not constitute a waiver of Tenant's obligation to obtain Landlord's consent to further assignments or subleases, hypothecations, transfers or third party use or occupancy.

(d) For purposes of this Article 10, an assignment shall be deemed to include a change in the majority control of Tenant, resulting from any transfer, sale or assignment of shares of stock of Tenant occurring by operation of Law or otherwise if Tenant is a corporation whose shares of stock are not traded publicly. If Tenant is a partnership, any change in the partners of Tenant shall be deemed to be an assignment.

(e) For purposes of this Lease, a "Permitted Transferee" shall mean any Person which: (i) is an Affiliate; or (ii) is the corporation or other entity (the "Successor") resulting from a merger, consolidation or non-bankruptcy reorganization with Tenant; or (iii) is otherwise a deemed assignee due to a change of control under Section 10.1(d) above; or (iv) purchases substantially all of the assets of Tenant as a going concern (the "Purchaser"). Notwithstanding anything to the contrary in Sections 10.1(a) and (b) and 10.3, provided there is no uncured Default under this Lease, Tenant shall have the right, without the prior written consent of Landlord, to assign this Lease to a Permitted Transferee or to sublease the Premises or any part thereof to a Permitted Transferee provided that: (1) Landlord receives ten (10) days' prior written notice of an assignment or sublease (including a proposed transaction described in subparts (i), (ii), (iii) or (iv) of this Section 10.1(e), to the extent such prior notice is permitted under applicable Laws); (2) with respect to an assignment of this Lease or a sublease of more than half the Premises to an entity described in subparts (ii) or (iv) of this Section 10.1(e), the Permitted Transferee's net worth and liquidity are each not less than Tenant's net worth immediately prior to such assignment or subletting; (3) with respect to an assignment of this Lease or a sublease of more than half the Premises to an entity described in subparts (i) or (iii) of this Section 10.1(e), Tenant (as the assignor or sublandlord) continues in existence with a net worth not less than Tenant's net worth

immediately prior to such assignment or subletting; (4) the Permitted Transferee expressly assumes (except a Permitted Transferee which is a deemed assignee under subpart (iii) of this Section 10.1(e) or which is a sublessee in the event of a sublease under this Section 10.1(e)) in writing reasonably satisfactory to Landlord all of the obligations of Tenant under this Lease and delivers such assumption to Landlord no later than fifteen (15) days following the effective date of the assignment; (5) Landlord receives no later than five (5) days following the effective date a fully executed copy of the applicable assignment or sublease agreement between Tenant and the Permitted Transferee; (6) promptly after Landlord's written request, Tenant and the Permitted Transferee provide such reasonable documents and information which Landlord reasonably requests for the purpose of substantiating whether or not the assignment or sublease is to a Permitted Transferee; and (7) such transfer is not being entered into for the primary purpose of avoiding the requirement for Landlord's prior consent or the provisions of Sections 10.2 or 10.3. All determinations of net worth and liquidity for purposes of this Subsection shall exclude any value attributable to goodwill or going concern value.

(f) With respect to any sublease hereunder, subject to Section 10.3 below, Tenant hereby irrevocably assigns to Landlord, effective upon any such sublease, all rent and other payments due from subtenant under the sublease, provided however, that Tenant shall have a license to collect such rent and other payments until the occurrence of a Default by Tenant under any of the provisions of this Lease. At any time after such Default, at Landlord's option, Landlord shall have the right to give notice to the subtenant of such assignment. Landlord shall credit Tenant with any rent received by Landlord under such assignment, but the acceptance of any payment on account of rent from the subtenant as the result of any such default shall in no manner whatsoever serve to release Tenant from any liability under the terms, covenants, conditions, provisions or agreement under this Lease. No such payment of rent or any other payment by the subtenant directly to Landlord and/or acceptance of such payment(s) by Landlord, regardless of the circumstances or reasons therefor, shall in any manner whatsoever be deemed an attornment by the subtenant to Landlord in the absence of a specific written agreement signed by Landlord to such an effect.

10.2 RECAPTURE

Excluding any assignment or sublease contemplated in Section 10.1(e), if Tenant requests an assignment of this Lease or a sublease of the entire Premises for any period or a sublease for at least seventy-five (75%) of the Premises for the remainder of the then-current Term, Landlord shall have the option to exclude from the Premises covered by this Lease ("recapture") the space proposed to be sublet or subject to assignment, effective as of the proposed commencement date of such sublease or proposed effective date of such assignment. If Landlord elects to recapture, Tenant shall have the right to revoke the request to so sublet or assign by providing Landlord written notice thereof no later than five (5) days following Landlord's recapture notice to Tenant in which case, the Premises shall not be transferred, and this Lease will remain in full force and effect with respect to the entirety of the Premises then-existing as of the date of such request or consent by Tenant. If Landlord elects to recapture and Tenant has not revoked its request for consent, Tenant shall surrender possession of the space proposed to be subleased or subject to the assignment to Landlord on the effective date of recapture of such space from the Premises, such date being the Termination Date for such space. Effective as of the date of recapture of any portion of the Premises pursuant to this section, the Monthly Base Rent, Rentable Area of the Premises and Tenant's Share shall be adjusted accordingly.

10.3 EXCESS RENT

Except in connection with any assignment or sublease contemplated in Section 10.1(e), Tenant shall pay Landlord on the first day of each month during the term of the sublease or assignment, fifty percent (50%) of the amount by which the sum of all rent and other consideration (direct or indirect) due from the subtenant or assignee for such month exceeds: a) that portion of the Monthly Base Rent and Rent Adjustments due under this Lease for said month which is allocable to the space sublet or assigned, and b) the following costs and expenses for the subletting or assignment of such space: (i) brokerage commissions and attorneys' fees and expenses, (ii) the actual costs paid in making any improvements or substitutions in the Premises required by any sublease or assignment; and (iii) "free rent" periods, costs of any inducements or concessions given to subtenant or assignee, moving costs, and other amounts in respect of such subtenant's or assignee's other leases or occupancy arrangements.

10.4 TENANT LIABILITY

In the event of any sublease or assignment, whether or not with Landlord's consent, Tenant shall not be released or discharged from any liability, whether past, present or future, under this Lease, including any liability arising from the exercise of any renewal or expansion option, to the extent such exercise is expressly permitted by Landlord. Tenant's liability shall remain primary, and in the event of default by any subtenant, assignee or successor of Tenant in performance or observance of any of the covenants or conditions of this Lease, Landlord may proceed directly against Tenant without the necessity of exhausting remedies against said subtenant, assignee or successor. In addition, if Tenant has any options to extend the Term or to add other space to the Premises, such options shall not be available to any subtenant or assignee (other than Permitted Transferees), directly or indirectly without Landlord's express written consent, which may be withheld in Landlord's sole discretion.

10.5 ASSUMPTION AND ATTORNMENT

If Tenant shall assign this Lease as permitted herein, the assignee shall expressly assume all of the obligations of Tenant hereunder in a written instrument satisfactory to Landlord and furnished to Landlord not later than fifteen (15) days prior to the effective date of the assignment. If Tenant shall sublease the Premises as permitted herein, Tenant shall, at Landlord's option, within fifteen (15) days following any request by Landlord, obtain and furnish to Landlord the written agreement of such subtenant to the effect that the subtenant will attorn to Landlord and will pay all sublease rent directly to Landlord.

10.6 PROCESSING EXPENSES

Tenant shall pay to Landlord, as Landlord's cost of processing each proposed assignment or subletting (whether or not the same is ultimately approved by Landlord or consummated by Tenant) except in connection with Permitted Transfers, an amount equal to the sum of (i) Landlord's reasonable attorneys' and other professional fees, not to exceed \$2,000, plus (ii) the sum of \$1,500.00 for the cost of Landlord's administrative, accounting and clerical time (collectively, "Processing Costs"). Notwithstanding anything to the contrary herein, Landlord shall not be required to process any request for Landlord's consent to an assignment or subletting until Tenant has paid to Landlord the amount of Landlord's estimate of the Processing Costs. When the actual amount of the Processing Costs is determined, it shall be reconciled with Landlord's estimate, and any payments or refunds required as a result thereof shall promptly thereafter be made by the parties.

10.7 EFFECT OF IMPERMISSIBLE TRANSFER

Any assignment or sublease effected without Landlord's consent in violation of this Article 10 shall, at Landlord's option, be a non-curable Default under Section 11.1 without the necessity of any notice and grace period.

ARTICLE 11

DEFAULT AND REMEDIES

11.1 EVENTS OF DEFAULT

The occurrence or existence of any one or more of the following shall constitute a "Default" by Tenant under this Lease:

(i) Tenant fails to pay any installment or other payment of Rent including Rent Adjustment Deposits or Rent Adjustments when due, where such failure shall continue for a period of five (5) days after Tenant's receipt of written notice thereof from Landlord;

(ii) Tenant fails to observe or perform any of the other covenants, conditions or provisions of this Lease or the Workletter and fails to cure such default within thirty (30) days after written notice thereof to Tenant, unless the default involves a hazardous condition, which shall be cured forthwith or unless the failure to perform is a Default for which this Lease specifies there is no cure or grace period. Notwithstanding the foregoing, if any such cure cannot be reasonably completed within such thirty (30) day period, Tenant shall have such longer period as needed to complete such cure (up to ninety (90) days, subject to extension due to Force Majeure) so long as the cure is commenced within such thirty (30) day period and Tenant diligently pursues to completion;

(iii) Tenant fails to maintain any insurance policy required hereunder, and fails to cure such default within five (5) business days after written notice thereof to Tenant;

(iv) Tenant abandons the Premises for a period of ten (10) consecutive days or any abandonment of the Premises by Tenant which would cause any insurance policy to be invalidated or otherwise lapse, in each of foregoing cases if Tenant is then in monetary default under this Lease;

(v) an assignment or sublease, or attempted assignment or sublease, of this Lease or the Premises by Tenant contrary to the provisions of Article 10, unless such assignment or sublease is expressly conditioned upon Tenant having received Landlord's consent thereto;

(vi) the interest of Tenant in this Lease is levied upon under execution or other legal process;

(vii) a petition is filed by or against Tenant to declare Tenant bankrupt or seeking a plan of reorganization or arrangement under any Chapter of the Bankruptcy Act, or any amendment, replacement or substitution therefor, or to delay payment of, reduce or modify Tenant's debts, which in the case of an involuntary action is not discharged within sixty (60) days;

(viii) Tenant is declared insolvent by Law or any assignment of Tenant's property is made for the benefit of creditors;

(ix) a receiver is appointed for Tenant or Tenant's property, which appointment is not discharged within thirty (30) days;

(x) any action taken by or against Tenant to reorganize or modify Tenant's capital structure in a materially adverse way which in the case of an involuntary action is not discharged within thirty (30) days; or

(xi) upon the dissolution of Tenant.

11.2 LANDLORD'S REMEDIES

(a) A Default shall constitute a breach of this Lease for which Landlord shall have the rights and remedies set forth in this Section 11.2 and all other rights and remedies set forth in this Lease or now or hereafter allowed by Law, whether legal or equitable, and all rights and remedies of Landlord shall be cumulative and none shall exclude any other right or remedy now or hereafter allowed by applicable Law.

(b) With respect to a Default, at any time Landlord may terminate Tenant's right to possession by written notice to Tenant stating such election. Any written notice required pursuant to Section 11.1 shall constitute notice of unlawful detainer pursuant to California Code of Civil Procedure Section 1161 if, at Landlord's sole discretion, it states Landlord's election that Tenant's right to possession is terminated after expiration of any period required by Law or any longer period required by Section 11.1. Upon the expiration of the period stated in Landlord's written notice of termination (and unless such notice provides an option to cure within such period and Tenant cures the Default within such period), Tenant's right to possession shall terminate and this Lease shall terminate, and Tenant shall remain liable as hereinafter provided. Upon such termination in writing of Tenant's right to possession, Landlord shall have the right, subject to applicable Law, to re-enter the Premises and dispossess Tenant and the legal representatives of Tenant and all other occupants of the Premises by unlawful detainer or other summary proceedings, or as otherwise permitted by Law, regain possession of the Premises and remove their property (including their trade fixtures, personal property and Required Removables pursuant to Article 12), but Landlord shall not be obligated to effect such removal, and such property may, at Landlord's option, be stored elsewhere, sold or otherwise dealt with as permitted by Law, at the risk of, expense of and for the account of Tenant, and the proceeds of any sale shall be applied pursuant to Law. Landlord shall in no event be responsible for the value, preservation or safekeeping of any such property. Tenant hereby waives all claims for damages that may be caused by Landlord's removing or storing Tenant's personal property pursuant to this Section or Section 12.1, and Tenant hereby indemnifies, and agrees to defend, protect and hold harmless, the Indemnitees from any and all loss, claims, demands, actions, expenses, liability and cost (including attorneys' fees and expenses) arising out of or in any way related to such removal or storage. Upon

such written termination of Tenant's right to possession and this Lease, Landlord shall have the right to recover damages for Tenant's Default as provided herein or by Law, including the following damages provided by California Civil Code Section 1951.2:

- (1) the worth at the time of award of the unpaid Rent which had been earned at the time of termination;
- (2) the worth at the time of award of the amount by which the unpaid Rent which would have been earned after termination until the time of award exceeds the amount of such Rent loss that Tenant proves could reasonably have been avoided;
- (3) the worth at the time of award of the amount by which the unpaid Rent for the balance of the Term of this Lease after the time of award exceeds the amount of such Rent loss that Tenant proves could be reasonably avoided; and
- (4) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, including, without limitation, Landlord's unamortized costs of tenant improvements, leasing commissions and legal fees incurred in connection with entering into this Lease.

The word "rent" as used in this Section 11.2 shall have the same meaning as the defined term Rent in this Lease. The "worth at the time of award" of the amount referred to in clauses (1) and (2) above is computed by allowing interest at the Default Rate. The worth at the time of award of the amount referred to in clause (3) above is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%). For the purpose of determining unpaid Rent under clause (3) above, the monthly Rent reserved in this Lease shall be deemed to be the sum of the Monthly Base Rent, monthly storage space rent, if any, and the amounts last payable by Tenant as Rent Adjustments for the calendar year in which Landlord terminated this Lease as provided hereinabove.

(c) Even if Tenant is in Default and/or has abandoned the Premises, this Lease shall continue in effect for so long as Landlord does not terminate Tenant's right to possession by written notice as provided in Section 11.2(b) above, and Landlord may enforce all its rights and remedies under this Lease, including the right to recover Rent as it becomes due under this Lease. In such event, Landlord shall have all of the rights and remedies of a landlord under California Civil Code Section 1951.4 (Landlord may continue Lease in effect after Tenant's Default and abandonment and recover Rent as it becomes due, if Tenant has the right to sublet or assign, subject only to reasonable limitations), or any successor statute. During such time as Tenant is in Default, if Landlord has not terminated this Lease by written notice and if Tenant requests Landlord's consent to an assignment of this Lease or a sublease of the Premises, subject to Landlord's option to recapture pursuant to Section 10.2, Landlord shall not unreasonably withhold, condition or delay its consent to such assignment or sublease. Tenant acknowledges and agrees that in the absence of written notice pursuant to Section 11.2(b) above terminating Tenant's right to possession, no other act of Landlord shall constitute a termination of Tenant's right to possession or an acceptance of Tenant's surrender of the Premises, including acts of maintenance or preservation or efforts to re-let the Premises or the appointment of a receiver upon initiative of Landlord to protect Landlord's interest under this Lease or the withholding of consent to a subletting or assignment, or terminating a subletting or assignment, if in accordance with other provisions of this Lease.

(d) in the event that Landlord seeks an injunction with respect to a breach or threatened breach by Tenant of any of the covenants, conditions or provisions of this Lease, Tenant agrees to pay the premium for any bond required in connection with such injunction.

(e) Tenant hereby waives any and all rights to relief from forfeiture, redemption or reinstatement granted by Law (including California Civil Code of Procedure Sections 1174 and 1179) in the event of Tenant being evicted or dispossessed for any cause or in the event of Landlord obtaining possession of the Premises by reason of Tenant's Default or otherwise;

(f) Notwithstanding any other provision of this Lease, a notice to Tenant given under this Article and Article 24 of this Lease or given pursuant to California Code of Civil Procedure Section 1161, and any notice served by mail, shall be deemed served, and the requisite waiting period deemed to begin under said Code of Civil Procedure Section upon mailing (except as may be required under Code of Civil Procedure Section 1161 et seq.), without any additional waiting requirement under Code of Civil Procedure Section 1011 et seq. or by other Law. For purposes of Code of Civil Procedure Section 1162, Tenant's "place of residence", "usual place of business", "the property" and "the place where the property is situated" shall mean and be the Premises, whether or not Tenant has vacated same at the time of service.

(g) The voluntary or other surrender or termination of this Lease, or a mutual termination or cancellation thereof, shall not work a merger and shall terminate all or any existing assignments, subleases, subtenancies or occupancies permitted by Tenant, except if and as otherwise specified in writing by Landlord.

(h) No delay or omission in the exercise of any right or remedy of Landlord upon any default by Tenant, and no exercise by Landlord of its rights pursuant to Section 26.16 to perform any duty which Tenant fails timely to perform, shall impair any right or remedy or be construed as a waiver. No provision of this Lease shall be deemed waived by Landlord unless such waiver is in writing signed by Landlord. The waiver by Landlord of any breach of any provision of this Lease shall not be deemed a waiver of any subsequent breach of the same or any other provision of this Lease.

11.3 ATTORNEY'S FEES

In the event any party brings any suit or other proceeding with respect to the subject matter or enforcement of this Lease, the prevailing party (as determined by the court, agency or other authority before which such suit or proceeding is commenced) shall, in addition to such other relief as may be awarded, be entitled to recover reasonable attorneys' fees, expenses and costs of investigation as actually incurred, including court costs, expert witness fees, costs and expenses of investigation, and all reasonable attorneys' fees, costs and expenses in any such suit or proceeding (including in any action or participation in or in connection with any case or proceeding under the Bankruptcy Code, 11 United States Code Sections 101 et seq., or any successor statutes, in establishing or enforcing the right to indemnification, in appellate proceedings, or in connection with the enforcement or collection of any judgment obtained in any such suit or proceeding).

The following provisions shall apply in the event of the bankruptcy or insolvency of Tenant:

(a) In connection with any proceeding under Chapter 7 of the Bankruptcy Code where the trustee of Tenant elects to assume this Lease for the purposes of assigning it, such election or assignment, may only be made upon compliance with the provisions of subclauses (b) and (c) below, which conditions Landlord and Tenant acknowledge to be commercially reasonable. In the event the trustee elects to reject this Lease then Landlord shall immediately be entitled to possession of the Premises without further obligation to Tenant or the trustee.

(b) Any election to assume this Lease under Chapter 11 or 13 of the Bankruptcy Code by Tenant as debtor-in-possession or by Tenant's trustee (the "Electing Party") must provide for the Electing Party to cure or provide to Landlord adequate assurance that it will cure all monetary defaults under this Lease within fifteen (15) days from the date of assumption and that it will cure all nonmonetary defaults under this Lease within thirty (30) days from the date of assumption. Landlord and Tenant acknowledge such condition to be commercially reasonable.

(c) If the Electing Party has assumed this Lease or elects to assign Tenant's interest under this Lease to any other person, such interest may be assigned only if the intended assignee has provided adequate assurance of future performance (as herein defined), of all of the obligations imposed on Tenant under this Lease.

(d) For the purposes hereof, "adequate assurance of future performance" means that Landlord has ascertained that each of the following conditions has been satisfied:

(i) The assignee has submitted a current financial statement, certified by its chief financial officer, which shows a net worth and working capital in amounts sufficient to assure the future performance by the assignee of Tenant's obligations under this Lease; and

(ii) Landlord has obtained consents or waivers from any third parties that may be required under a lease, mortgage, financing arrangement, or other agreement by which Landlord is bound, to enable Landlord to permit such assignment.

(e) Landlord's acceptance of rent or any other payment from any trustee, receiver, assignee, person, or other entity will not be deemed to have waived, or waive, the requirement of Landlord's consent, Landlord's right to terminate this Lease for any transfer of Tenant's interest under this Lease without such consent, or Landlord's claim for any amount of Rent due from Tenant.

11.5 LANDLORD'S DEFAULT

Landlord shall be in default hereunder in the event Landlord has not commenced and pursued with reasonable diligence the cure of any failure of Landlord to meet its obligations hereunder within thirty (30) days after the receipt by Landlord of written notice from Tenant of the alleged failure to perform. Failure to provide the requisite notice and cure period by Tenant under this paragraph shall be an absolute defense by Landlord against any claims for failure to perform any of its obligations. In no event shall Tenant have the right to terminate or rescind this Lease as a result of Landlord's default as to any covenant or agreement contained in this Lease. Tenant hereby waives such remedies of termination and rescission and hereby agrees that Tenant's remedies for default hereunder and for breach of any promise or inducement shall be limited to a suit for damages and/or injunction. In addition, Tenant hereby covenants that, prior to the exercise of any such remedies, it will give the Mortgagee notice and a reasonable time to cure any default by Landlord, provided that Tenant has received written notice of the address of such Mortgagee.

ARTICLE 12

SURRENDER OF PREMISES

12.1 IN GENERAL

Upon the Termination Date, Tenant shall surrender and vacate the Premises immediately and deliver possession thereof to Landlord in a broom-clean, good and tenantable condition, excepting ordinary wear and tear, repairs and maintenance for which Landlord is responsible under this Lease and damage caused by casualty and/or Landlord. Tenant shall deliver to Landlord all keys to the Premises. All permanent improvements in and to the Premises (other than Tenant's trade fixtures, equipment and personal property), including any Tenant Alterations (collectively, "Leasehold Improvements") shall remain upon the Premises at the end of the Term without compensation to Tenant. Landlord, however, by written notice to Tenant at least 90 days prior to the Termination Date, may require Tenant, at its expense, to remove (a) any Cable, and (b) any Tenant Additions that, in Landlord's reasonable judgment, are of a nature that would require removal and repair costs that are materially in excess of the removal and repair costs associated with standard laboratory and office improvements, as applicable, only to the extent Landlord notified Tenant of such required removal at the time Landlord approved such Tenant Addition (collectively referred to as "Required Removables"). Required Removables shall include, without limitation, raised floors, personal baths and showers, vaults, rolling file systems and structural alterations and modifications. The designated Required Removables shall be removed by Tenant before the Termination Date. Tenant's removal and disposal of items pursuant to this Paragraph 12 must comply with the Project's Sustainability Practices and the applicable Green Building Standards. Tenant shall repair damage caused by the installation or removal of Required Removables. If Tenant fails to perform its obligations in a timely manner, Landlord may perform such work at Tenant's expense. Tenant, at the time it requests approval for a proposed Tenant Alteration, may request in writing that Landlord advise Tenant whether the proposed Tenant Alteration or any portion of the proposed Tenant Alteration is a Required Removable. Within 10 days after receipt of Tenant's request, Landlord shall advise Tenant in writing as to which portions of the proposed Tenant Alterations are Required Removables. If any of the Tenant Additions which were installed by Tenant involved the lowering of ceilings, raising of floors or the

installation of specialized wall or floor coverings or lights, unless otherwise approved by Landlord, then Tenant shall also be obligated to return such surfaces to their condition prior to the commencement of this Lease. Tenant shall also be required to close any staircases or other openings between floors. In the event possession of the Premises is not delivered to Landlord when required hereunder, or if Tenant shall fail to remove those items described above, Landlord may (but shall not be obligated to), at Tenant's expense, remove any of such property and store, sell or otherwise deal with such property, and undertake, at Tenant's expense, such restoration work as Landlord deems necessary or advisable.

12.2 LANDLORD'S RIGHTS

All property which remains in the Premises after the Termination Date (including any of Tenant's trade fixtures, equipment and personal property) shall be conclusively presumed to have been abandoned by Tenant, and Landlord may deal with such property as provided in Section 11.2(b), including the waiver and indemnity obligations provided in that Section. Tenant shall also reimburse Landlord for all costs and expenses incurred by Landlord in removing any Required Removables Tenant failed to remove prior to the Termination Date and in restoring the Premises to the condition required by this Lease. For the period prior to the Termination Date, Landlord hereby waives any lien rights which it may otherwise have concerning Tenant's furniture, fixtures, equipment and/or supplies at the Premises, and Tenant shall have the right to remove the same at any time without Landlord's consent.

ARTICLE 13

HOLDING OVER

In the event that Tenant holds over in possession of the Premises after the Termination Date, for each month or partial month Tenant holds over possession of the Premises, Tenant shall pay Landlord 150% of the monthly Base Rent payable for the month immediately preceding the holding over, as well as Rent Adjustments during the period of such holding over, as the same may be reasonably estimated by Landlord). Tenant shall also pay all damages, but not including consequential damages, sustained by Landlord by reason of such holding over. The provisions of this Article 13 shall not constitute a waiver by Landlord of any re-entry rights of Landlord, and Tenant's continued occupancy of the Premises shall be as a tenancy in sufferance.

ARTICLE 14

DAMAGE BY FIRE OR OTHER CASUALTY

14.1 SUBSTANTIAL UNTENANTABILITY

(a) If any fire or other casualty (whether insured or uninsured) renders all or a substantial portion of the Premises or the Building untenable, Landlord shall, with reasonable promptness after the occurrence of such damage, cause a licensed and qualified architect or contractor to estimate the length of time that will be required to substantially complete the repair and restoration and shall, by notice advise Tenant of such estimate ("Landlord's Notice"). If Landlord's Notice indicates that the amount of time required to substantially complete such repair and restoration will exceed one hundred eighty (180) days from the date such damage occurred,

then Landlord, or Tenant if all or a substantial portion of the Premises is rendered untenable, shall have the right to terminate this Lease as of the date of such damage by delivering written notice to the other at any time within thirty (30) days after delivery of Landlord's Notice, provided that if Landlord so chooses, Landlord's Notice may also constitute such notice of termination.

(b) Unless this Lease is terminated as provided in the preceding subparagraph, Landlord shall proceed with reasonable promptness to repair and restore the Premises to its condition as existed prior to such casualty, subject to reasonable delays for insurance adjustments and Force Majeure delays, and also subject to zoning Laws and building codes then in effect. Landlord shall have no liability to Tenant, and Tenant shall not be entitled to terminate this Lease if such repairs and restoration are not in fact completed within the time period estimated by Landlord so long as Landlord shall proceed with reasonable diligence to complete such repairs and restoration. Notwithstanding the foregoing, if Landlord is obligated to repair or restore the Premises pursuant to this Section 14.1(b) and does not Commence (as defined below in this Section 14.1(b)) such repair or restoration within ninety (90) days after such obligation shall accrue (the "Outside Start Date"), which Outside Start Date shall be subject to extension due to Force Majeure, Tenant shall have the right, as its sole remedy, to terminate this Lease effective as of the date that is thirty (30) days after the Outside Start Date (the "Casualty Lease Termination Date") by giving written notice thereof to Landlord ("Tenant's Termination Notice") within fifteen (15) days after the Outside Start Date; provided, however, that if Landlord does Commence the repair or restoration on or before the Casualty Lease Termination Date, Tenant's election to termination shall be null and void and this Lease shall continue in full force and effect. "Commence" shall mean either the unconditional authorization of the preparation of the required plans necessary for such repair or restoration, or the beginning of the actual work to repair or restore the Premises, whichever first occurs. In order for Tenant to have the termination right provided for in this Section 14.1(b), Tenant's Termination Notice must (i) be concurrently sent to any Mortgagee whose address has been provided to Tenant, and (ii) state Tenant's intention to terminate this Lease as of the Casualty Lease Termination Date.

(c) Tenant acknowledges that Landlord shall be entitled to the full proceeds of any insurance coverage, whether carried by Landlord or Tenant, for damages to the Premises, except for (i) those proceeds of Tenant's insurance of its own personal property, trade fixtures and equipment which would be removable by Tenant at the Termination Date, and (ii) proceeds of any business interruption insurance maintained by Tenant. All such insurance proceeds shall be payable to Landlord whether or not the Premises are to be repaired and restored, provided, however, if this Lease is not terminated and the parties proceed to repair and restore Tenant Additions at Tenant's cost, to the extent Landlord received proceeds of Tenant's insurance covering Tenant Additions, such proceeds shall be applied to reimburse Tenant for its cost of repairing and restoring Tenant Additions.

(d) Notwithstanding anything to the contrary herein set forth: (i) Landlord shall have no duty pursuant to this Section to repair or restore any portion of any Tenant Additions or to expend for any repair or restoration of the Premises or Building in amounts in excess of insurance proceeds paid to Landlord and available for repair or restoration; and (ii) Tenant shall not have the right to terminate this Lease pursuant to this Section if any damage or destruction was caused by the act or neglect of Tenant, its agent or employees. Whether or not this Lease is terminated pursuant to this Article 14, in no event shall Tenant be entitled to any compensation or damages for loss of the use of the whole or any part of the Premises or for any inconvenience or annoyance occasioned by any such damage, destruction, rebuilding or restoration of the Premises or the Building or access thereto.

(e) Any repair or restoration of the Premises performed by Tenant shall be in accordance with the provisions of Article 9 hereof.

14.2 INSUBSTANTIAL UNTENANTABILITY

If the Premises or the Building is damaged by a casualty but neither is rendered substantially untenable for the Permitted Use, and Landlord's Notice indicates that the time to substantially complete the repair or restoration will not exceed one hundred eighty (180) days from the date such damage occurred, then Landlord shall proceed to repair and restore the Building and/or the Premises other than Tenant Additions, with reasonable promptness, unless such damage is to the Premises and occurs during the last twelve (12) months of the Term (regardless of the estimated repair time), in which event either Tenant or Landlord shall have the right to terminate this Lease as of the date of such casualty by giving written notice thereof to the other within thirty (30) days after the date of such casualty. Notwithstanding the aforesaid, Landlord's obligation to repair shall be limited in accordance with the provisions of Section 14.1 above.

14.3 RENT ABATEMENT

Except for the negligence or willful act of Tenant or its agents, employees, contractors or invitees, if all or any part of the Premises are rendered untenable by fire or other casualty and this Lease is not terminated, Monthly Base Rent and Rent Adjustments shall abate for that part of the Premises which is untenable on a per diem basis from the date of the casualty until Landlord has Substantially Completed the repair and restoration work in the Premises which it is required to perform, provided, that as a result of such casualty, Tenant does not occupy the portion of the Premises which is untenable during such period.

14.4 WAIVER OF STATUTORY REMEDIES

The provisions of this Lease, including this Article 14, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, the Premises or the Property or any part of either, and any Law, including Sections 1932(2), 1933(4), 1941 and 1942 of the California Civil Code, with respect to any rights or obligations concerning damage or destruction shall have no application to this Lease or to any damage to or destruction of all or any part of the Premises or the Property or any part of either, and are hereby waived.

ARTICLE 15

EMINENT DOMAIN

15.1 TAKING OF WHOLE OR SUBSTANTIAL PART

In the event the whole or any substantial part of the Building or of the Premises is taken or condemned by any competent authority for any public use or purpose (including a deed given in lieu of condemnation) and is thereby rendered untenable or such taking could reasonably be expected to have a material adverse effect on Tenant's ability to operate its business at the Premises in substantially the same manner operated by Tenant prior to such taking, this Lease shall terminate as of the date title vests in such authority, and Monthly Base Rent and Rent Adjustments shall be apportioned as of the Termination Date. Notwithstanding anything to the contrary herein set forth,

in the event the taking is temporary (for less than the remaining Term of this Lease), Landlord may elect either (i) to terminate this Lease, or (ii) permit Tenant to receive the entire award attributable to the Premises in which case Tenant shall continue to pay Rent and this Lease shall not terminate.

15.2 TAKING OF PART

In the event a part of the Building or the Premises is taken or condemned by any competent authority (or a deed is delivered in lieu of condemnation) and this Lease is not terminated, this Lease shall be amended to reduce or increase, as the case may be, the Monthly Base Rent and Tenant's Share to reflect the Rentable Area of the Premises or Building, as the case may be, remaining after any such taking or condemnation. Landlord, upon receipt and to the extent of the award in condemnation (or proceeds of sale) shall make necessary repairs and restorations to the Premises (exclusive of Tenant Additions) and to the Building to the extent necessary to constitute the portion of the Building not so taken or condemned as a complete architectural and economically efficient unit. Notwithstanding the foregoing, if as a result of any taking, or a governmental order that the grade of any street or alley adjacent to the Building is to be changed and such taking or change of grade makes it necessary or desirable to substantially remodel or restore the Building or prevents the economical operation of the Building, Landlord shall have the right to terminate this Lease upon ninety (90) days' prior written notice to Tenant.

15.3 COMPENSATION

Landlord shall be entitled to receive the entire award (or sale proceeds) from any such taking, condemnation or sale without any payment to Tenant, and Tenant hereby assigns to Landlord, Tenant's interest, if any, in such award; provided, however, Tenant shall have the right separately to pursue against the condemning authority a separate award in respect of the loss, if any, to Tenant Additions paid for by Tenant and relocation costs without any credit or allowance from Landlord so long as there is no diminution of Landlord's award as a result.

ARTICLE 16

INSURANCE

16.1 TENANT'S INSURANCE

Tenant, at Tenant's expense, agrees to maintain in force, with a company or companies acceptable to Landlord, during the Term: (a) Commercial General Liability Insurance on a primary basis and without any right of contribution from any insurance carried by Landlord covering the Premises on an occurrence basis against all claims for personal injury, bodily injury, death and property damage, including contractual liability covering the indemnification provisions in this Lease, and such insurance shall be for such limits that are reasonably required by Landlord from time to time but not less than a combined single limit (each occurrence and in the aggregate) of Five Million and No/100 Dollars (\$5,000,000.00) (which limit may be achieved through use of umbrella coverage); (b) Workers' Compensation and Employers' Liability Insurance to the extent required by and in accordance with the Laws of the State of California; (c) "All Risks" property insurance in an amount adequate to cover the full replacement cost of all Tenant Additions, equipment, installations, fixtures and contents of the Premises (including coverage in the event of loss from earthquake, water damage, and earthquake sprinkler leakage, up to a maximum coverage

amount of Five Million and No/100 Dollars (\$5,000,000.00)); (d) in the event a motor vehicle is to be used by Tenant in connection with its business operation from the Premises, Comprehensive Automobile Liability Insurance coverage with limits of not less than One Million and No/100 Dollars (\$1,000,000.00) combined single limit coverage against bodily injury liability and property damage liability arising out of the use by or on behalf of Tenant, its agents and employees in connection with this Lease, of any owned, non-owned or hired motor vehicles; (e) environmental liability (also known as "Pollution Legal Liability") coverage with limits of not less than One Million and No/100 Dollars (\$1,000,000.00) to cover Tenant's indemnity obligations pursuant to Section 7.1(f)(5) above; and (f) such other insurance or coverages as Landlord reasonably requires, so long as such coverages are then required for all comparable tenants of the Project.

16.2 FORM OF POLICIES

Each policy referred to in Section 16.1 shall satisfy the following requirements. Each policy shall (i) name Landlord and the Indemnitees as additional insureds (except Workers' Compensation and Employers' Liability Insurance), (ii) be issued by one or more responsible insurance companies licensed to do business in the State of California reasonably satisfactory to Landlord, (iii) where applicable, provide for deductible amounts satisfactory to Landlord and not permit co-insurance, and (iv) each policy of "All-Risks" property insurance shall provide that the policy shall not be invalidated should the insured waive in writing prior to a loss, any or all rights of recovery against any other party for losses covered by such policies. Tenant shall deliver to Landlord, certificates of insurance (and at Landlord's request, copies of all policies and renewals thereof to be maintained by Tenant hereunder), prior to Tenant's entry into the Premises and prior to the expiration date of each policy. Additionally, Tenant shall provide Landlord written notice of any cancelation or amendment of any such insurance within two (2) business days following Tenant's knowledge of the same. If Tenant fails to carry the insurance required under this Article 16 or fails to provide certificates of renewal as and when required hereunder, Landlord may, but shall not be obligated to acquire such insurance on Tenant's behalf or Tenant's sole cost and expense.

16.3 LANDLORD'S INSURANCE

Landlord agrees to purchase and keep in full force and effect during the Term hereof, including any extensions or renewals thereof, insurance under policies issued by insurers of recognized responsibility, qualified to do business in the State of California on the Building in amounts sufficient to cover the replacement cost thereof, insuring against fire and such other risks as may be included in standard forms of all risk coverage insurance reasonably available from time to time. Landlord agrees to maintain in force during the Term, Commercial General Liability Insurance covering the Building on an occurrence basis against all claims for personal injury, bodily injury, death, and property damage. Such insurance shall be for a combined single limit (each occurrence and in the aggregate) of not less than Five Million and No/100 Dollars (\$5,000,000.00) (which limit may be achieved through use of umbrella coverage). Neither Landlord's obligation to carry such insurance nor the carrying of such insurance shall be deemed to be an indemnity by Landlord with respect to any claim, liability, loss, cost or expense due, in whole or in part, to Tenant's negligent acts or omissions or willful misconduct. Without obligation to do so, Landlord may, in its sole discretion from time to time, carry insurance in amounts greater and/or for coverage additional to the coverage and amounts set forth above.

16.4 WAIVER OF SUBROGATION

(a) Landlord agrees that, if obtainable at no, or minimal, additional cost, and so long as the same is permitted under the laws of the State of California, it will include in its "All Risks" policies appropriate clauses pursuant to which the insurance companies (i) waive all right of subrogation against Tenant with respect to losses payable under such policies and/or (ii) agree that such policies shall not be invalidated should the insured waive in writing prior to a loss any or all right of recovery against any party for losses covered by such policies.

(b) Tenant agrees to include, if obtainable at no, or minimal, additional cost, and so long as the same is permitted under the laws of the State of California, in its "All Risks" insurance policy or policies on Tenant Additions, whether or not removable, and on Tenant's furniture, furnishings, fixtures and other property removable by Tenant under the provisions of this Lease, appropriate clauses pursuant to which the insurance company or companies (i) waive the right of subrogation against Landlord and/or any tenant of space in the Building with respect to losses payable under such policy or policies and/or (ii) agree that such policy or policies shall not be invalidated should the insured waive in writing prior to a loss any or all right of recovery against any party for losses covered by such policy or policies. If Tenant is unable to obtain in such policy or policies either of the clauses described in the preceding sentence, Tenant shall, if legally possible and without necessitating a change in insurance carriers, have Landlord named in such policy or policies as an additional insured. If Landlord shall be named as an additional insured in accordance with the foregoing, Landlord agrees to endorse promptly to the order of Tenant, without recourse, any check, draft, or order for the payment of money representing the proceeds of any such policy or representing any other payment growing out of or connected with said policies, and Landlord does hereby irrevocably waive any and all rights in and to such proceeds and payments.

(c) Provided that Landlord's right of full recovery under its policy or policies aforesaid is not adversely affected or prejudiced thereby, Landlord hereby waives any and all right of recovery which it might otherwise have against Tenant, its servants, agents and employees, for loss or damage occurring to the Real Property and the fixtures, appurtenances and equipment therein, to the extent the same is covered by Landlord's insurance, notwithstanding that such loss or damage may result from the negligence or fault of Tenant, its servants, agents or employees. Provided that Tenant's right of full recovery under its aforesaid policy or policies is not adversely affected or prejudiced thereby, Tenant hereby waives any and all right of recovery which it might otherwise have against Landlord, its servants, and employees and against every other tenant of the Real Property who shall have executed a similar waiver as set forth in this Section 16.4 (c) for loss or damage to Tenant Additions, whether or not removable, and to Tenant's furniture, furnishings, fixtures and other property removable by Tenant under the provisions hereof to the extent the same is coverable by Tenant's insurance required under this Lease, notwithstanding that such loss or damage may result from the negligence or fault of Landlord, its servants, agents or employees, or such other tenant and the servants, agents or employees thereof.

(d) Landlord and Tenant hereby agree to advise the other promptly if the clauses to be included in their respective insurance policies pursuant to subparagraphs (a) and (b) above cannot be obtained on the terms hereinbefore provided. Landlord and Tenant hereby also agree to notify the other promptly of any cancellation or change of the terms of any such policy that would affect such clauses.

16.5 NOTICE OF CASUALTY

Tenant shall give Landlord notice in case of a fire or accident in the Premises promptly after Tenant is aware of such event.

ARTICLE 17

WAIVER OF CLAIMS AND INDEMNITY

17.1 WAIVER OF CLAIMS

To the extent permitted by Law, Tenant hereby releases the Indemnitees from, and waives all claims for, damage to person or property sustained by Tenant or any occupant of the Premises or the Property resulting directly or indirectly from any existing or future condition, defect, matter or thing in and about the Premises or the Property or any part of either or any equipment or appurtenance therein, or resulting from any accident in or about the Premises or the Property, or resulting directly or indirectly from any act or neglect of any tenant or occupant of the Property or of any other person, including Landlord's agents and servants, except to the extent caused by the gross negligence or willful and wrongful act of any of the Indemnitees. To the extent permitted by Law, Tenant hereby waives any consequential damages, compensation or claims for inconvenience or loss of business, rents, or profits as a result of such injury or damage, whether or not caused by the gross negligence or willful and wrongful act of any of the Indemnitees. If any such damage, whether to the Premises or the Property or any part of either, or whether to Landlord or to other tenants in the Property, results from any act or negligence of Tenant, its employees, servants, agents, contractors, invitees or customers, Tenant shall be liable therefor and Landlord may, at Landlord's option, repair such damage and Tenant shall, upon demand by Landlord, as payment of additional Rent hereunder, reimburse Landlord within thirty (30) days of demand for the total cost of such repairs, in excess of amounts, if any, paid to Landlord under insurance covering such damages. Tenant shall not be liable for any such damage caused by its acts or negligence if Landlord or a tenant has recovered the full amount of the damage from proceeds of insurance policies and the insurance company has waived its right of subrogation against Tenant.

17.2 INDEMNITY BY TENANT

To the extent permitted by Law, and except to the extent indemnified by Landlord under Section 17.3, Tenant hereby indemnifies, and agrees to protect, defend and hold the Indemnitees harmless, against any and all actions, claims, demands, liability, costs and expenses, including reasonable attorneys' fees and expenses for the defense thereof, arising from Tenant's occupancy of the Premises, from the undertaking of any Tenant Additions or repairs to the Premises by Tenant, from the conduct of Tenant's business on the Premises, or from any breach or default on the part of Tenant in the performance of any covenant or agreement on the part of Tenant to be performed pursuant to the terms of this Lease, or from any willful act or negligence of Tenant, its agents, contractors, servants, employees, customers or invitees, in or about the Premises or the Property or any part of either. In case of any action or proceeding brought against the Indemnitees by reason of any such claim, upon notice from Landlord, Tenant covenants to defend such action or proceeding by counsel reasonably acceptable to Landlord. Landlord reserves the right to settle, compromise or dispose of any and all actions, claims and demands related to the foregoing indemnity. The foregoing indemnity shall not operate to relieve Indemnitees of liability to the

extent such liability is caused by the willful and wrongful act of Indemnitees. Further, the foregoing indemnity is subject to and shall not diminish any waivers in effect in accordance with Section 16.4 by Landlord or its insurers to the extent of amounts, if any, paid to Landlord under its "All-Risks" property insurance. This Article 17 shall survive the expiration or earlier termination of this Lease.

17.3 INDEMNITY BY LANDLORD

To the extent permitted by Law, Landlord hereby indemnifies, and agrees to protect, defend and hold Tenant, its partners, members, directors, officers, agents and employees (the "Tenant Indemnitees") harmless, against any and all actions, claims, demands, liability, costs and expenses, including reasonable attorneys' fees and expenses for the defense thereof, arising from any willful act or the gross negligence of Landlord, in or about the Premises or the Property or any part of either. In case of any action or proceeding brought against the Tenant Indemnitees by reason of any such claim, upon notice from Tenant, Landlord covenants to defend such action or proceeding by counsel chosen by Landlord. The foregoing indemnity shall not operate to relieve Tenant Indemnitees of liability to the extent such liability is caused by the willful and wrongful act of the Tenant Indemnitees. Further, the foregoing indemnity is subject to and shall not diminish any waivers in effect in accordance with Section 16.4 by Tenant or its insurers to the extent of amounts, if any, paid to Tenant under its "All-Risks" property insurance.

17.4 WAIVER OF CONSEQUENTIAL DAMAGES

To the extent permitted by law, Tenant hereby waives and releases the Indemnitees from any consequential damages, compensation or claims for inconvenience or loss of business, rents or profits as a result of any injury or damage, whether or not caused by the willful and wrongful act of any of the Indemnitees.

ARTICLE 18

RULES AND REGULATIONS

18.1 RULES

Tenant agrees for itself and for its subtenants, employees, agents, and invitees to comply with the rules and regulations listed on Exhibit C-2 attached hereto and with all reasonable modifications and additions thereto which Landlord may make from time to time and provided to Tenant in writing, provided that such modifications and additions apply to all tenants generally and non-discriminatory manner. In the event of any conflict between such rules and regulations and any provision in this Lease, such provision of this Lease shall control.

18.2 ENFORCEMENT

Nothing in this Lease shall be construed to impose upon Landlord any duty or obligation to enforce the rules and regulations as set forth on Exhibit C-2 or as hereafter adopted, or the terms, covenants or conditions of 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, visitors or licensees. Landlord shall use reasonable efforts to enforce the rules and regulations of the Project in a uniform and non-discriminatory manner.

ARTICLE 19

LANDLORD'S RESERVED RIGHTS

Landlord shall have the following rights exercisable without notice to Tenant and without liability to Tenant for damage or injury to persons, property or business and without being deemed an eviction or disturbance of Tenant's use or possession of the Premises or giving rise to any claim for offset or abatement of Rent: (1) to change the Building's name or street address upon thirty (30) days' prior written notice to Tenant; (2) to install, affix and maintain all signs on the exterior and/or interior of the Building; (3) to designate and/or approve prior to installation, all types of signs, window shades, blinds, drapes, awnings or other similar items, and all internal lighting that may be visible from the exterior of the Premises; (4) upon reasonable written notice to Tenant, to display the Premises to prospective purchasers and lenders at reasonable hours at any time during the Term and to prospective tenants at reasonable hours during the last twelve (12) months of the Term, subject to Tenant's reasonable security and safety rules and procedures (which may include, without limitation, requiring a Tenant representative to escort visitors at all times); (5) to grant to any party the exclusive right to conduct any business or render any service in or to the Building, provided such exclusive right shall not operate to unreasonably interfere with Tenant's use of the Premises for the purpose permitted hereunder; (6) to change the arrangement and/or location of entrances or passageways, doors and doorways, corridors, elevators, stairs, washrooms or public portions of the Building, and to close entrances, doors, corridors, elevators or other facilities, provided that such action shall not materially and adversely interfere with Tenant's access to the Premises or the Building or unreasonably interfere with Tenant's use of the Premises for the purposes permitted hereunder; (7) to have access for Landlord and other tenants of the Building to any mail chutes and boxes located in or on the Premises as required by any applicable rules of the United States Post Office; and (8) to close the Building after Standard Operating Hours, except that Tenant and its employees and invitees shall be entitled to admission at all times, under such reasonable regulations as Landlord prescribes for the Building for security purposes.

ARTICLE 20

RELOCATION OF TENANT

At any time during the Term, Landlord may substitute for the Premises, other premises in the Building, in which event the New Premises shall be deemed to be the Premises for all purposes under this Lease, provided that (i) the New Premises shall be located on higher floors in the Building than the Premises and shall be substantially similar to the Premises in area, configuration and functionality; (ii) if Tenant is then occupying the Premises, Landlord shall pay the actual and reasonable expenses of physically moving Tenant, its property and equipment to the New Premises; (iii) Landlord shall give Tenant not less than ninety (90) days' prior written notice of such substitution; and (iv) Landlord, at its expense, shall improve the New Premises with improvements substantially similar to those in the Premises at the time of such substitution, if the Premises are then improved.

ESTOPPEL CERTIFICATE

21.1 TENANT ESTOPPEL

Within ten (10) business days after request therefor by Landlord, Mortgagee or any prospective mortgagee or owner, Tenant agrees as directed in such request to execute an Estoppel Certificate in recordable form, binding upon Tenant, certifying (i) that this Lease is unmodified and in full force and effect (or if there have been modifications, a description of such modifications and that this Lease as modified is in full force and effect); (ii) the dates to which Rent has been paid; (iii) that Tenant is in the possession of the Premises, if that is the case; (iv) that to the best knowledge of Tenant without any duty to investigate, Landlord is not in default under this Lease (or if Tenant believes Landlord is in default, the nature thereof in detail); (v) that to the best knowledge of Tenant without any duty to investigate, Tenant has no offsets or defenses to the performance of its obligations under this Lease (or if Tenant believes there are any offsets or defenses, a full and complete explanation thereof); (vi) that the Premises have been completed in accordance with the terms and provisions hereof or the Workletter, that Tenant has accepted the Premises and the condition thereof and of all improvements thereto and has no claims against Landlord or any other party with respect thereto (or stating such exceptions thereto as applicable); (vii) that if an assignment of rents or leases has been served upon the Tenant by a Mortgagee, Tenant will acknowledge receipt thereof and agree to be bound by the reasonable provisions thereof; (viii) that Tenant will give to the Mortgagee copies of all notices required or permitted to be given by Tenant to Landlord, provided that the Mortgagee's address is provided to Tenant in writing; and (ix) to any other factual information reasonably and customarily requested.

21.2 ENFORCEMENT

In the event that Tenant fails to deliver an Estoppel Certificate within three (3) days of its receipt of a second written notice from Landlord to Tenant after the expiration of the initial ten (10) day period, then such failure shall be a Default for which there shall be no cure or grace period. In addition to any other remedy available to Landlord, Tenant shall be deemed to have irrevocably appointed Landlord as Tenant's attorney-in-fact to execute and deliver such Estoppel Certificate.

21.3 LANDLORD ESTOPPEL

Within ten (10) business days after request therefor by Tenant, Landlord shall also certify that (i) that this Lease is unmodified and in full force and effect (or if there have been modifications, a description of such modifications and that this Lease as modified is in full force and effect); (ii) the dates to which Rent has been paid; (iii) whether or not to the best knowledge of Landlord without any duty to investigate, Tenant is in default in the performance of any covenant, agreement or condition contained in this Lease and, if so, specifying each such default of which Landlord may have knowledge.

ARTICLE 22

REAL ESTATE BROKERS

Tenant represents that, except for the broker(s) listed in Section 1.1(17), Tenant has not dealt with any real estate broker, sales person, or finder in connection with this Lease, and no such person initiated or participated in the negotiation of this Lease, or showed the Premises to Tenant. Landlord represents that, except for the broker(s) listed in Section 1.1(17), Landlord has not dealt with any real estate broker, sales person, or finder in connection with this Lease, and no such person initiated or participated in the negotiation of this Lease, or showed the Premises on behalf of Landlord. Tenant hereby agrees to indemnify, protect, defend and hold Landlord and the Indemnitees, harmless from and against any and all liabilities and claims for commissions and fees arising out of a breach of the foregoing representation as well as from any claim or claims for any commission or fee by any broker or other party claiming to represent Tenant in connection with any future extensions or renewals hereof. Landlord hereby agrees to indemnify, protect, defend and hold Tenant and the Tenant Indemnitees, harmless from and against any and all liabilities and claims for commissions and fees arising out of a breach of the foregoing representation by Landlord as well as from any claim or claims for any commission or fee by any broker or other party claiming to represent Landlord in connection with any future extensions or renewals hereof. Landlord agrees to pay any commission to which the brokers listed in Section 1.1(17) are entitled in connection with this Lease pursuant to Landlord's written agreement with such broker.

ARTICLE 23

MORTGAGEE PROTECTION

23.1 SUBORDINATION AND ATTORNMENT

This Lease is and shall be expressly subject and subordinate at all times to (i) any ground or underlying lease of the Real Property, now or hereafter existing, and all amendments, extensions, renewals and modifications to any such lease, and (ii) the lien of any mortgage or trust deed now or hereafter encumbering fee title to the Real Property and/or the leasehold estate under any such lease, and all amendments, extensions, renewals, replacements and modifications of such mortgage or trust deed and/or the obligation secured thereby, unless such ground lease or ground lessor, or mortgage, trust deed or Mortgagee, expressly provides or elects that this Lease shall be superior to such lease or mortgage or trust deed. If any such mortgage or trust deed is foreclosed (including any sale of the Real Property pursuant to a power of sale), or if any such lease is terminated, upon request of the Mortgagee or ground lessor, as the case may be, Tenant shall, provided that such Mortgagee or ground lessor agrees not to disturb Tenant's rights under this Lease if Tenant is not in Default hereunder, attorn to the purchaser at the foreclosure sale or to the ground lessor under such lease, as the case may be, provided, however, that such purchaser or ground lessor shall not be (i) bound by any payment of Rent for more than one month in advance except payments in the nature of security for the performance by Tenant of its obligations under this Lease; (ii) subject to any offset, defense or damages arising out of a default of any obligations of any preceding Landlord; (iii) bound by any amendment or modification of this Lease made without the written consent of the Mortgagee or ground lessor, or (iv) liable for any security deposits not actually received in cash by such purchaser or ground lessor. This subordination shall

be self-operative and no further certificate or instrument of subordination need be required by any such Mortgagee or ground lessor. In confirmation of such subordination, however, Tenant shall execute promptly any commercially reasonable certificate or instrument that Landlord, Mortgagee or ground lessor may request. Tenant hereby constitutes Landlord as Tenant's attorney-in-fact to execute such certificate or instrument for and on behalf of Tenant upon Tenant's failure to do so within fifteen (15) days of a request to do so. Upon request by such successor in interest, Tenant shall execute and deliver reasonable instruments confirming the attornment provided for herein. The terms of this paragraph shall survive any termination of this Lease by reason of foreclosure.

During the thirty (30) day period following the Date of this Lease, Landlord shall use commercially reasonable efforts to obtain a subordination, non-disturbance and attornment agreement (a "SNDA") from the current Mortgagee in a form reasonably acceptable to Tenant; provided, however, in no event shall Landlord be in default of this Lease if, despite Landlord's exercise of commercially reasonable efforts, Landlord is unable to obtain a SNDA for Tenant from any such Mortgagee. Additionally, notwithstanding anything herein to the contrary, Tenant's obligation to subordinate this Lease to any future ground lease or mortgage as provided above is conditioned upon Landlord providing a SNDA from such future Mortgagee on the standard form provided by such Mortgagee (with such commercially reasonable modifications as may be requested by Tenant and approved by such Mortgagee).

23.2 MORTGAGEE PROTECTION

Tenant agrees to give any Mortgagee or ground lessor, by registered or certified mail, a copy of any notice of default served upon Landlord by Tenant, provided that prior to such notice Tenant has received written notice (by way of service on Tenant of a copy of an assignment of rents and leases, or otherwise) of the address of such Mortgagee or ground lessor. Tenant further agrees that if Landlord shall have failed to cure such default within the time provided for in this Lease, then the Mortgagee or ground lessor shall have an additional thirty (30) days after receipt of notice thereof within which to cure such default or if such default cannot be cured within that time, then such additional notice time as may be necessary, if, within such thirty (30) days, any Mortgagee or ground lessor has commenced and is diligently pursuing the remedies necessary to cure such default (including the commencement of foreclosure proceedings or other proceedings to acquire possession of the Real Property, if necessary to effect such cure). Such period of time shall be extended by any period within which such Mortgagee or ground lessor is prevented from commencing or pursuing such foreclosure proceedings or other proceedings to acquire possession of the Real Property by reason of Landlord's bankruptcy. Until the time allowed as aforesaid for Mortgagee or ground lessor to cure such defaults has expired without cure, Tenant shall have no right to, and shall not, terminate this Lease on account of default. This Lease may not be modified or amended so as to reduce the Rent or shorten the Term, or so as to adversely affect in any other respect to any material extent the rights of Landlord, nor shall this Lease be canceled or surrendered, without the prior written consent, in each instance, of the ground lessor or the Mortgagee. Landlord agrees to diligently use reasonable efforts to obtain such Mortgagee consents as may be required and shall promptly inform Tenant in writing upon obtaining such consents.

ARTICLE 24

NOTICES

(a) All notices, demands or requests provided for or permitted to be given pursuant to this Lease must be in writing and shall be personally delivered, sent by Federal Express or other reputable overnight courier service, or mailed by first class, registered or certified United States mail, return receipt requested, postage prepaid, or sent by electronic mail, provided that the sender also sends a hard copy of the notice within one (1) business day by one of the other methods.

(b) All notices, demands or requests to be sent pursuant to this Lease shall be deemed to have been properly given or served by delivering or sending the same in accordance with this Section, addressed to the parties hereto at their respective addresses listed in Section 1.1.

(c) Notices, demands or requests sent by mail or overnight courier service as described above shall be effective upon deposit in the mail or with such courier service. However, except with respect to a notice given under Code of Civil Procedure Section 1161 et seq., the time period in which a response to any such notice, demand or request must be given shall commence to run from (i) in the case of delivery by mail, the date of receipt on the return receipt of the notice, demand or request by the addressee thereof, or (ii) in the case of delivery by Federal Express or other overnight courier service, the date of acceptance of delivery by an employee, officer, director or partner of Landlord or Tenant. Rejection or other refusal to accept or the inability to deliver because of changed address of which no notice was given, as indicated by advice from Federal Express or other overnight courier service or by mail return receipt, shall be deemed to be receipt of notice, demand or request sent. Notices may also be served by personal service upon any officer, director or partner of Landlord or Tenant, and shall be effective upon such service.

(d) By giving to the other party at least thirty (30) days' written notice thereof, either party shall have the right from time to time during the term of this Lease to change their respective addresses for notices, statements, demands and requests, provided such new address shall be within the United States of America.

ARTICLE 25

OFAC

Landlord advises Tenant hereby that the purpose of this Article is to provide to the Landlord information and assurances to enable Landlord to comply with the law relating to OFAC.

Tenant hereby represents, warrants and covenants to Landlord, either that (i) Tenant is regulated by the SEC, FINRA or the Federal Reserve (a "Regulated Entity") or (ii) neither Tenant nor any person or entity that directly or indirectly (a) controls Tenant or (b) has an ownership interest in Tenant of twenty-five percent (25%) or more, appears on the list of Specially Designated Nationals and Blocked Persons ("OFAC List") published by the Office of Foreign Assets Control ("OFAC") of the U.S. Department of the Treasury.

If, in connection with this Lease, there is one or more Guarantors of Tenant's obligations under this Lease, then Tenant further represents, warrants and covenants either that (i) any such Guarantor is a Regulated Entity or (ii) neither Guarantor nor any person or entity that directly or indirectly (a) controls such Guarantor or (b) has an ownership interest in such Guarantor of twenty-five percent (25%) or more, appears on the OFAC List.

Tenant covenants that during the term of this Lease to provide to Landlord information reasonably requested by Landlord including without limitation, organizational structural charts and organizational documents which Landlord may deem to be necessary (“Tenant OFAC Information”) in order for Landlord to confirm Tenant’s continuing compliance with the provisions of this Article. Tenant represents and warrants that the Tenant OFAC Information it has provided or to be provided to Landlord or Landlord’s Broker in connection with the execution of this Lease is true and complete.

ARTICLE 26

MISCELLANEOUS

26.1 LATE CHARGES

(a) All payments required hereunder (other than the Monthly Base Rent, Rent Adjustments, and Rent Adjustment Deposits, which shall be due as hereinbefore provided) to Landlord shall be paid within ten (10) days after Landlord’s demand therefor if not otherwise set forth in this Lease. All such amounts (including Monthly Base Rent, Rent Adjustments, and Rent Adjustment Deposits) not paid when due shall bear interest from the date due until the date paid at the Default Rate in effect on the date such payment was due.

(b) In the event Tenant is more than five (5) days late in paying any installment of Rent due under this Lease, Tenant shall pay Landlord a late charge equal to five percent (5%) of the delinquent installment of Rent. The parties agree that (i) such delinquency will cause Landlord to incur costs and expenses not contemplated herein, the exact amount of which will be difficult to calculate, including the cost and expense that will be incurred by Landlord in processing each delinquent payment of rent by Tenant, (b) the amount of such late charge represents a reasonable estimate of such costs and expenses and that such late charge shall be paid to Landlord for each delinquent payment in addition to all Rent otherwise due hereunder. The parties further agree that the payment of late charges and the payment of interest provided for in subparagraph (a) above are distinct and separate from one another in that the payment of interest is to compensate Landlord for its inability to use the money improperly withheld by Tenant, while the payment of late charges is to compensate Landlord for its additional administrative expenses in handling and processing delinquent payments.

(c) Payment of interest at the Default Rate and/or of late charges shall not excuse or cure any default by Tenant under this Lease, nor shall the foregoing provisions of this Article or any such payments prevent Landlord from exercising any right or remedy available to Landlord upon Tenant’s failure to pay Rent when due, including the right to terminate this Lease.

26.2 NO JURY TRIAL; VENUE; JURISDICTION

To the fullest extent permitted by law, including laws enacted after the Commencement Date, each party hereto (which includes any assignee, successor, heir or personal representative of a party) shall not seek a jury trial, hereby waives trial by jury, and hereby further waives any objection to venue in the County in which the Project is located, and agrees and consents to personal jurisdiction of the courts of the State of California, in any action or proceeding or counterclaim brought by any party hereto against the other on any matter whatsoever arising out

of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant's use or occupancy of the Premises, or any claim of injury or damage, or the enforcement of any remedy under any statute, emergency or otherwise, whether any of the foregoing is based on this Lease or on tort law. No party will seek to consolidate any such action in which a jury has been waived with any other action in which a jury trial cannot or has not been waived. It is the intention of the parties that these provisions shall be subject to no exceptions. The provisions of this Section shall survive the expiration or earlier termination of this Lease.

26.3 NO DISCRIMINATION

Tenant agrees for Tenant and Tenant's heirs, executors, administrators, successors and assigns and all persons claiming under or through Tenant, and this Lease is made and accepted upon and subject to the following conditions: that there shall be no discrimination against or segregation of any person or group of persons on account of race, color, creed, religion, sex, marital status, national origin or ancestry (whether in the leasing, subleasing, transferring, use, occupancy, tenure or enjoyment of the Premises or otherwise) nor shall Tenant or any person claiming under or through Tenant establish or permit any such practice or practices of discrimination or segregation with reference to the use or occupancy of the Premises by Tenant or any person claiming through or under Tenant.

26.4 FINANCIAL STATEMENTS

Within ten (10) days after written request from Landlord from time to time during the Term (not more than once per any 12-month period), Tenant shall provide Landlord with current financial statements setting forth Tenant's financial condition and net worth for the most recent quarter, including balance sheets and statements of profits and losses. Such statements shall be prepared by an independent accountant and certified by Tenant's president, chief executive officer or chief financial officer. Landlord shall keep such financial information confidential and shall only disclose such information to Landlord's lenders, consultants, purchasers or investors, or other agents (who shall be subject to the same confidentiality obligations) on a need to know basis in connection with the administration of this Lease. Notwithstanding the foregoing, Tenant shall have no obligation to deliver any financial statements so long as Tenant is a publicly traded entity and its financial statements are publicly available.

26.5 OPTION

This Lease shall not become effective as a lease or otherwise until executed and delivered by both Landlord and Tenant. The submission of this Lease to Tenant does not constitute a reservation of or option for the Premises, but when executed by Tenant and delivered to Landlord, this Lease shall constitute an irrevocable offer by Tenant in effect for fifteen (15) days to lease the Premises on the terms and conditions herein contained.

26.6 TENANT AUTHORITY

Tenant represents and warrants to Landlord that it has full authority and power to enter into and perform its obligations under this Lease, that the person executing this Lease is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of Tenant's authority.

26.7 LANDLORD AUTHORITY

Landlord represents and warrants to Tenant that it has full authority and power to enter into and perform its obligations under this Lease, that the person executing this Lease is fully empowered to do so, and that no consent or authorization is necessary from any third party (or, if required, such consent has been obtained by Landlord).

26.8 ENTIRE AGREEMENT

This Lease, the exhibits, schedules, and riders attached hereto contain the entire agreement between Landlord and Tenant concerning the Premises and there are no other agreements, either oral or written, and no other representations or statements, either oral or written, on which Tenant has relied. This Lease shall not be modified except by a writing executed by Landlord and Tenant.

26.9 MODIFICATION OF LEASE FOR BENEFIT OF MORTGAGEE

If Mortgagee of Landlord requires a modification of this Lease which shall not result in any increased cost or expense to Tenant or in any other substantial and adverse change in the rights and obligations of Tenant hereunder, then Tenant agrees that this Lease may be so modified.

26.10 EXCULPATION

Tenant agrees, on its behalf and on behalf of its successors and assigns, that any liability or obligation under this Lease shall only be enforced against Landlord's equity interest in the Property up to a maximum of Twenty Million Dollars (\$20,000,000.00) and in no event against any other assets of Landlord, or Landlord's members, officers or directors or partners, and that any liability of Landlord with respect to this Lease shall be so limited and Tenant shall not be entitled to any judgment in excess of such amount. Notwithstanding anything to the contrary contained herein, in no event shall Landlord be liable to Tenant for consequential, punitive or special damages with respect to this Lease.

26.11 ACCORD AND SATISFACTION

No payment by Tenant or receipt by Landlord of a lesser amount than any installment or payment of Rent due shall be deemed to be other than on account of the amount due, and no endorsement or statement on any check or any letter accompanying any check or payment of Rent shall 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 installment or payment of Rent or pursue any other remedies available to Landlord. No receipt of money by Landlord from Tenant after the termination of this Lease or Tenant's right of possession of the Premises shall reinstate, continue or extend the Term. Receipt or acceptance of payment from anyone other than Tenant, including an assignee of Tenant, is not a waiver of any breach of Article 10, and Landlord may accept such payment on account of the amount due without prejudice to Landlord's right to pursue any remedies available to Landlord.

26.12 LANDLORD'S OBLIGATIONS ON SALE OF BUILDING

In the event of any sale or other transfer of the Building, subject to purchaser's assumption of Landlord's obligations under this Lease accruing or to be performed after the date of such sale or transfer, Landlord shall be entirely freed and relieved of all agreements and obligations of Landlord hereunder accruing or to be performed after the date of such sale or transfer, and any remaining liability of Landlord with respect to this Lease shall be limited to the dollar amount specified in Section 26.10 and Tenant shall not be entitled to any judgment in excess of such amount.

26.13 BINDING EFFECT

Subject to the provisions of Article 10, this Lease shall be binding upon and inure to the benefit of Landlord and Tenant and their respective heirs, legal representatives, successors and permitted assigns.

26.14 CAPTIONS

The Article and Section captions in this Lease are inserted only as a matter of convenience and in no way define, limit, construe, or describe the scope or intent of such Articles and Sections.

26.15 TIME; APPLICABLE LAW; CONSTRUCTION

Time is of the essence of this Lease and each and all of its provisions. This Lease shall be construed in accordance with the Laws of the State of California. If any term, covenant or condition of this Lease or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, covenant or condition to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each item, covenant or condition of this Lease shall be valid and be enforced to the fullest extent permitted by Law. Wherever the term "including" or "includes" is used in this Lease, it shall have the same meaning as if followed by the phrase "but not limited to". The language in all parts of this Lease shall be construed according to its normal and usual meaning and not strictly for or against either Landlord or Tenant.

26.16 ABANDONMENT

In the event Tenant abandons the Premises but is otherwise in compliance with all the terms, covenants and conditions of this Lease, Landlord shall (i) have the right to enter into the Premises in order to show the space to prospective tenants, (ii) have the right to reduce the services provided to Tenant pursuant to the terms of this Lease to such levels as Landlord reasonably determines to be adequate services for an unoccupied premises, and (iii) during the last six (6) months of the Term, have the right to prepare the Premises for occupancy by another tenant upon the end of the Term. Tenant expressly acknowledges that in the absence of written notice pursuant to Section 11.2(b) or pursuant to California Civil Code Section 1951.3 terminating Tenant's right to possession, none of the foregoing acts of Landlord or any other act of Landlord shall constitute a termination of Tenant's right to possession or an acceptance of Tenant's surrender of the Premises, and this Lease shall continue in effect.

26.17 LANDLORD'S RIGHT TO PERFORM TENANT'S DUTIES

If Tenant fails timely to perform any of its duties under this Lease beyond applicable notice and cure periods, Landlord shall have the right (but not the obligation), to perform such duty on behalf and at the expense of Tenant without prior notice to Tenant, and all sums expended or expenses incurred by Landlord in performing such duty shall be deemed to be additional Rent under this Lease and shall be due and payable upon demand by Landlord.

26.18 SECURITY SYSTEM

Landlord shall not be obligated to provide or maintain any security patrol or security system. Landlord shall not be responsible for the quality of any such patrol or system which may be provided hereunder or for damage or injury to Tenant, its employees, invitees or others due to the failure, action or inaction of such patrol or system.

26.19 NO LIGHT, AIR OR VIEW EASEMENTS

Any diminution or shutting off of light, air or view by any structure which may be erected on lands of or adjacent to the Project shall in no way affect this Lease or impose any liability on Landlord.

26.20 RECORDATION

Neither this Lease, nor any notice nor memorandum regarding the terms hereof, shall be recorded by Tenant. Any such unauthorized recording shall be a Default for which there shall be no cure or grace period. Tenant agrees to execute and acknowledge, at the request of Landlord, a memorandum of this Lease, in recordable form.

26.21 SURVIVAL

The waivers of the right of jury trial, the other waivers of claims or rights, the releases and the obligations of Tenant and Landlord under this Lease to indemnify, protect, defend and hold harmless Landlord and/or Indemnitees, or Tenant and/or Tenant Indemnitees, respectively, shall survive the expiration or termination of this Lease, and so shall all other obligations or agreements which by their terms survive expiration or termination of this Lease.

26.22 COUNTERPARTS

This Lease may be executed in any number of counterparts, each of which shall be deemed an original, but all of which, together, shall constitute one and the same instrument. Telecopied signatures or signatures transmitted by electronic mail in so-called "pdf" format or via DocuSign or similar electronic means may be used in place of original signatures on this Lease. Landlord and Tenant intend to be bound by the signatures on the telecopied or e-mailed document, are aware that the other party will rely on the telecopied or e-mailed signatures, and hereby waive any defenses to the enforcement of the terms of this Lease based on such telecopied or e-mailed signatures. Promptly following request by either party, the other party shall provide the requesting party with original signatures on this Lease.

26.23 EXHIBITS, SCHEDULES AND RIDERS

All exhibits, schedules, riders and/or addenda referred to in this Lease as an exhibit, schedule, rider, or addenda hereto, or attached hereto, are hereby incorporated into and made a part of this Lease.

[Signatures on Following Page]

IN WITNESS WHEREOF, this Lease has been executed as of the date set forth in Section 1.1(4) hereof.

TENANT:

Dynavax Technologies Corporation,
a Delaware corporation

By: /s/ Eddie Gray

Print Name: Eddie Gray

Its: Chief Executive Officer

By: /s/ Michael Ostrach

Print Name: Michael Ostrach

Its: Senior Vice President, Chief Financial
Officer and Chief Business Officer

LANDLORD:

Emery Station West, LLC,
a California limited liability company

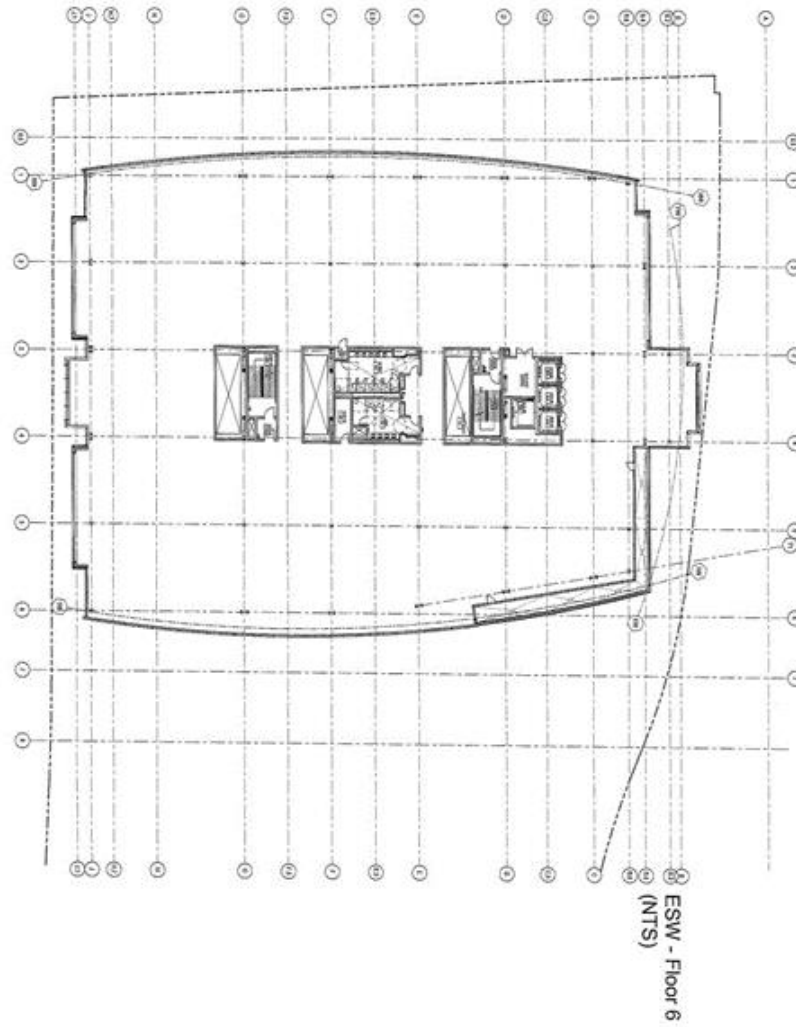
By: ES West Associates, LLC
a California limited liability company,
its Managing Member

By: Wareham-NZL, LLC
a California limited liability company,
its Manager

By: /s/ Richard K. Robbins
Richard K. Robbins
Manager

EXHIBIT A

OUTLINE OF PREMISES



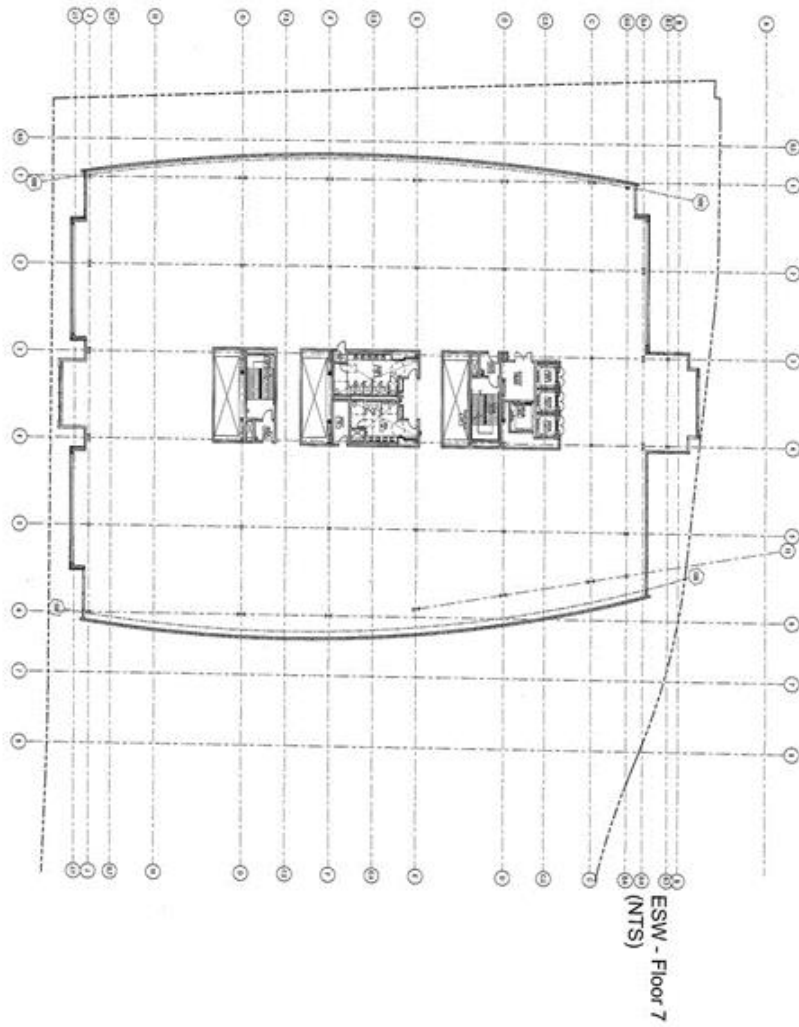


EXHIBIT B

WORKLETTER

THIS WORKLETTER (this “**Workletter**”) is attached to and made a part of that certain Lease (the “**Lease**”) between EMERY STATION WEST, LLC, a California limited liability company (“**Landlord**”), and DYNAVAX TECHNOLOGIES CORPORATION, a Delaware corporation (“**Tenant**”). All capitalized terms used but not defined herein shall have the respective meanings given such terms in the Lease. This Workletter sets forth the terms and conditions relating to the construction of Tenant Improvements (defined below) in the Premises.

SECTION 1

ALLOWANCE; TENANT IMPROVEMENTS

1.1 Allowance. Tenant shall be entitled to an allowance (the “**Tenant Improvement Allowance**”) in an amount not to exceed \$110.00 per square foot of Rentable Area of the Premises for the costs relating to the design, permitting and construction of Tenant’s improvements which will be permanently affixed to the Premises in accordance with this Workletter (the “**Tenant Improvements**”). In no event will Landlord be obligated to make disbursements pursuant to this Workletter in a total amount which exceeds the Tenant Improvement Allowance. Tenant agrees that it shall commence the Tenant Improvements promptly following the Commencement Date and diligently proceed to complete the same. Tenant must submit Payment Request Supporting Documentation (defined below) for such work in accordance with this Workletter no later than April 1, 2020, after which date Landlord’s obligation to fund such costs shall expire.

1.2 Disbursement of the Tenant Improvement Allowance.

(a) Tenant Improvement Allowance Items. Except as otherwise set forth in this Workletter, the Tenant Improvement Allowance shall be disbursed by Landlord only for the following items and costs (collectively the “**Tenant Improvement Allowance Items**”):

(i) Payment of the fees of the Architect and the Building Consultants (as those terms are defined below) and payment of fees and costs reasonably incurred by Landlord for the review of the Construction Drawings (defined below) by Landlord or by Landlord’s third party consultants;

(ii) The payment of plan check, permit and license fees relating to the Tenant Improvements, including, without limitation, taxes, fees, charges and levies by governmental agencies;

(iii) The cost of construction of the Tenant Improvements, including, without limitation, costs and expenses for labor, materials, equipment and fixtures, after hours charges, testing and inspection costs, freight elevator usage, trash removal costs, any other services provided by third parties unaffiliated with Tenant in connection with the construction and contractors’ fees and general conditions;

(iv) The cost of any changes to the Building when such changes are required by the Construction Drawings, such cost to include all direct architectural and/or engineering fees and expenses incurred in connection therewith;

(v) The cost of any changes to the Construction Drawings (defined below) or Tenant Improvements required by applicable laws, including, without limitation, building codes (collectively, “**Code**”); and

(vi) The Coordination Fee (defined below).

(b) Disbursement of Tenant Improvement Allowance. During the design and construction of the Tenant Improvements, Landlord shall make periodic disbursements (no more often than once per month) of the Tenant Improvement Allowance to reimburse Tenant for Tenant Improvement Allowance Items and shall authorize the release of funds as follows.

(i) To request a periodic disbursement, Tenant shall deliver to Landlord: (A) a request for payment from Contractor (defined below) approved by Tenant, in a reasonable form to be provided or approved in advance by Landlord, including a schedule of values and showing the percentage of completion, by trade, of the Tenant Improvements, which details the portion of the work completed and the portion not completed; (B) invoices from all of Tenant’s Agents (defined below) for labor rendered and materials delivered to the Premises; (C) executed conditional mechanic’s lien releases from all of Tenant’s Agents who have lien rights with respect to the subject request for payment (along with unconditional mechanics’ lien releases with respect to payments made pursuant to Tenant’s prior submission hereunder) in compliance with all applicable laws; (D) if not already supplied to Landlord, a copy of the construction permits referenced in Section 3.2(a) below; and (E) all other information reasonably requested by Landlord (collectively, the “**Payment Request Supporting Documentation**”).

(ii) Within forty (40) days after Tenant’s delivery to Landlord of all Payment Request Supporting Documentation, Landlord shall deliver to Tenant payment in an amount equal to the lesser of: (x) the amount so requested by Tenant, as set forth in Section 1.2(b)(i) above, less (i) the applicable Over-Tenant Improvement Allowance Amount (defined in Section 3.2(a) below and (ii) a ten percent (10%) retention (the aggregate amount of such retentions to be known as the “**Final Retention**”), and (y) the balance of any remaining available portion of the Tenant Improvement Allowance (not including the Final Retention), provided that if Landlord, in good faith, disputes any item in a request for payment based on non-compliance of any work with the Approved Working Drawings (defined below) or due to any substandard work (reasonably determined by Landlord) and delivers a written objection to such item setting forth with reasonable particularity Landlord’s reasons for its dispute (a “**Draw Dispute Notice**”) within ten (10) days following Tenant’s submission of its Payment Request Supporting Documentation, Landlord may deduct the amount of such disputed item from the payment. Landlord and Tenant shall, in good faith, endeavor to diligently resolve any such dispute. Landlord’s payment of such amounts shall not be deemed Landlord’s approval or acceptance of the work furnished or materials supplied as set forth in Tenant’s payment request.

(iii) Subject to the provisions of this Work Agreement, following the final completion of construction of the Tenant Improvements, Landlord shall deliver to Tenant a check made payable to Tenant, or a check or checks made payable to another party or parties as reasonably requested by Tenant, in the amount of the Final Retention, provided that (A) Tenant delivers to Landlord properly executed unconditional mechanics' lien releases from all of Tenant's Agents in compliance with all applicable laws, as reasonably determined by Landlord; (B) Landlord has determined in good faith that no substandard work exists which adversely affects the mechanical, electrical, plumbing, heating, ventilating and air conditioning, life-safety or other systems of the Building, the curtain wall of the Building, the structure or exterior appearance of the Building; (C) Architect delivers to Landlord a certificate, in a form reasonably acceptable to Landlord, certifying that the construction of the Tenant Improvements has been finally completed; (D) Tenant supplies Landlord with evidence that all governmental approvals required for an occupant to legally occupy the Premises has been obtained; and (E) Tenant has fulfilled its Completion Obligations (defined below) and has otherwise complied with Landlord's standard "close-out" requirements regarding city approvals, closeout tasks, closeout documentation regarding the general contractor, financial close-out matters, and Tenant's vendors.

SECTION 2

CONSTRUCTION DRAWINGS

2.1 Selection of Architect; Construction Drawings. Tenant shall retain DGA Architects (the "**Architect**") to prepare the Construction Drawings. Such approval shall be granted or denied within three (3) business days upon request, and Landlord's failure to respond within such three (3) business day period shall be deemed approval by Landlord. Tenant shall retain engineering consultants approved in writing, in advance by Landlord, such approval not to be unreasonably withheld (the "**Building Consultants**") to prepare all plans and engineering working drawings and perform all work relating to mechanical, electrical and plumbing ("**MEP**"), HVAC/Air Balancing, life-safety, structural, sprinkler and riser work. Landlord acknowledges its pre-approval of the following Building Consultants:

MEP:	Interface
Structural:	Rutherford & Chekene.

The plans and drawings to be prepared by Architect and the Building Consultants hereunder (i.e., both the Space Plan and the Working Drawings, as each term is defined below) shall be known collectively as the "**Construction Drawings.**" All Construction Drawings shall comply with the drawing format and specifications reasonably determined or approved by Landlord and shall be subject to Landlord's prior written approval, not to be unreasonably withheld, conditioned or delayed. Such approval shall be granted or denied within ten (10) business days after delivery to Landlord, and Landlord's failure to respond within such ten (10) business day period, if such failure continues following a second, five (5) business day notice, shall be deemed approval by Landlord. Any disapproval of the Construction Drawings shall accompany Landlord's detailed reasons for such disapproval. All MEP drawings must be fully engineered and cannot be prepared on a "design-build" basis. Landlord's review of the Construction Drawings shall be for its sole purpose and shall not obligate Landlord to review the same, for quality, design, Code compliance or other like matters. Accordingly, notwithstanding

that any Construction Drawings are reviewed by Landlord or its space planner, architect, engineers and consultants, and notwithstanding any advice or assistance which may be rendered to Tenant by Landlord or Landlord's space planner, architect, engineers, and consultants, Landlord shall have no liability whatsoever in connection therewith and shall not be responsible for any omissions or errors contained in the Construction Drawings.

2.2 Space Plan. Tenant shall supply Landlord for Landlord's review and approval with four (4) copies signed by Tenant of its space plan for the Premises (the "**Space Plan**") before any architectural working drawings or engineering drawings have been commenced. The Space Plan shall include a layout and designation of all laboratory facilities, offices, rooms and other partitioning, their intended use, and equipment to be contained therein. Landlord may request clarification or more specific drawings for special use items not included in the Space Plan. Landlord shall advise Tenant within five (5) business days after Landlord's receipt of the Space Plan (or, if applicable, such additional information reasonably requested by Landlord pursuant to the provisions of the immediately preceding sentence) if the same is approved or is unsatisfactory or incomplete in any respect, and any disapproval of the Space Plan shall accompany Landlord's detailed reasons for such disapproval. Upon any disapproval by Landlord, Tenant shall promptly cause the Space Plan to be revised to correct any deficiencies or other matters Landlord may reasonably require and deliver such revised Space Plan to Landlord. Landlord's failure to respond within five (5) business days thereafter, if such failure continues following a second, three (3) business day notice, shall be deemed approval by Landlord.

2.3 Working Drawings. After the Space Plan has been approved by Landlord, Tenant shall cause the Architect and the Engineers to promptly complete the architectural and engineering drawings, and Architect shall compile a fully coordinated set of drawings, including but not limited to architectural, structural, mechanical, electrical, plumbing, fire sprinkler and life safety in a form which is complete to allow subcontractors to bid on the work and to obtain all applicable permits (collectively, the "**Working Drawings**") and shall submit the same to Landlord for Landlord's review and approval (such approved Working Drawings, "**Approved Working Drawings**"). Tenant shall supply Landlord with four (4) copies signed by Tenant of the Working Drawings. Landlord shall advise Tenant within ten (10) business days after Landlord's receipt of the Working Drawings if Landlord, in good faith, determines that the same are approved or are unsatisfactory or incomplete, and any disapproval of the Working Drawings shall accompany Landlord's detailed reasons for such disapproval. If Tenant is so advised, Tenant shall promptly revise the Working Drawings to correct any deficiencies or other matters Landlord may reasonably require and deliver such revised Working Drawing to Landlord. Landlord's failure to respond within five (5) business days thereafter, if such failure continues following a second, three (3) business day notice, shall be deemed approval by Landlord.

2.4 Landlord's Approval. Tenant acknowledges that it shall be deemed reasonable for Landlord to disapprove the Space Plan and any subsequent Working Drawings unless, at a minimum, the same are prepared on the basis that they will only utilize the appropriate pro-rated share of building systems capacity made available by Landlord for tenant usage in the building (including, but not limited to, the HVAC equipment, electrical power, fire sprinkler, emergency electrical power), (b) the Tenant Improvements as specified and designed comply with the requirements of the Project's Sustainability Practices and the applicable Green Building Standards set forth in Exhibit B-1 attached hereto, and (c) the sprinkler systems shall be designed in

compliance with the specifications provided by FM Global. Additionally, Landlord's approval of any matter under this Workletter may be withheld if Landlord reasonably determines that the same would violate any provision of the Lease or this Workletter or would adversely affect the mechanical, electrical, plumbing, heating, ventilating and air conditioning, life-safety or other systems of the Building, the curtain wall of the Building, the structure or exterior appearance of the Building.

2.5 Changes to the Working Drawings. Any changes to the Approved Working Drawings (each, a "**Change**") shall be requested and instituted in accordance with the provisions of this Section 2.5 and shall be subject to the written approval of the non-requesting party in accordance with this Workletter.

(a) Either Landlord or Tenant may request Changes after Landlord approves the Working Drawings by notifying the other party thereof in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any requested Changes, including (i) the Change, and (ii) any modification of the Approved Working Drawings, as applicable, necessitated by the Change. If the nature of a Change requires revisions to the Approved Working Drawings, then Tenant shall be solely responsible for the cost and expense of such revisions and any increases in the cost of the Tenant Improvements as a result of such Change. Change Requests shall be signed by the requesting party's representative. Landlord shall only request a Change if it reasonably believes that such Change is necessary to comply with applicable Laws, to prevent a material adverse impact on the Building's systems or to address a material Building structural issue.

(b) All Change Requests shall be subject to the other party's prior written approval, which approval shall not be unreasonably withheld, conditioned or delayed. The non-requesting party shall have three (3) business days after receipt of a Change Request to notify the requesting party in writing of the non-requesting party's decision either to approve or object to the Change Request. The non-requesting party's failure to respond within such three (3) business day period shall be deemed approval by the non-requesting party.

SECTION 3

CONSTRUCTION OF THE TENANT IMPROVEMENTS

3.1 Tenant's Selection of Contractors.

(a) The Contractor. Tenant will retain Dome Construction as a general contractor to construct the Tenant Improvements ("**Contractor**").

(b) Tenant's Agents. A list of all subcontractors, laborers, materialmen, and suppliers used by Tenant (such subcontractors, laborers, materialmen, and suppliers, and the Contractor to be known collectively as "**Tenant's Agents**") must be provided to Landlord, provided that Landlord will require Tenant to retain the Building Consultants. Tenant shall contract with Landlord's base building subcontractors for any mechanical, electrical, plumbing, life safety, structural or HVAC work in the Premises. All of Tenant's Agents shall be licensed in the State of California, capable of being bonded and union-affiliated in compliance with all then existing master labor agreements.

3.2 Construction of Tenant Improvements by Tenant's Agents.

(a) Construction Contract. Prior to Tenant's execution of the construction contract and general conditions with Contractor (the "**Contract**"), Tenant shall submit the Contract to Landlord for its approval, which approval shall not be unreasonably withheld, conditioned or delayed. Landlord shall have three (3) business days upon receipt of the Contract to either grant or deny its approval, and Landlord's failure to respond within such three (3) business day period shall be deemed approval by Landlord. Prior to the commencement of the construction of the Tenant Improvements, Tenant shall provide Landlord with a schedule of values consisting of a detailed breakdown, by trade, of the final costs to be incurred or which have been incurred, for all Tenant Improvement Allowance Items in connection with the design and construction of the Tenant Improvements, which costs form the basis for the amount of the Contract ("**Final Costs**"). Prior to the commencement of construction of the Tenant Improvements, Landlord and Tenant shall identify the amount equal to the difference between the amount of the Final Costs and the amount of the Tenant Improvement Allowance (less any portion thereof already disbursed by Landlord, or in the process of being disbursed by Landlord, on or before the commencement of construction of the Tenant Improvements), the "**Over-Allowance Amount**", and Landlord will reimburse Tenant on a monthly basis, as described in Section 1.2(b)(ii) above, for a percentage of each amount requested by the Contractor or otherwise to be disbursed under this Workletter, which percentage shall be equal to the Tenant Improvement Allowance divided by the amount of the Final Costs (after deducting from the Final Costs any amounts expended in connection with the preparation of the Construction Drawings, and the cost of all other Tenant Improvement Allowance Items incurred prior to the commencement of construction of the Tenant Improvements), and Tenant shall be solely responsible for any Over-Allowance Amount. If, after the Final Costs have been initially determined, the costs relating to the design and construction of the Tenant Improvements shall change, any additional costs for such design and construction in excess of the Final Costs shall be added to the Over-Allowance Amount and the Final Costs, and Landlord's reimbursement percentage, shall be recalculated in accordance with the terms of the immediately preceding sentence. Notwithstanding anything set forth herein to the contrary, construction of the Tenant Improvements shall not commence until Tenant has procured and delivered to Landlord a copy of all permits necessary for commencement of construction of the Tenant Improvements.

(b) Construction Requirements.

(i) Landlord's General Conditions for Tenant's Agents and Tenant Improvement Work. Construction of the Tenant Improvements shall comply with the following: (A) the Tenant Improvements shall be constructed in strict accordance with the Approved Working Drawings and Landlord's then-current published construction guidelines; (B) Tenant's Agents shall submit schedules of all work relating to the Tenant Improvements to Landlord and Landlord shall, within five (5) business days of receipt thereof, inform Tenant's Agents of any changes which are necessary thereto, and Tenant's Agents shall adhere to such corrected schedule; and (C) Tenant shall abide by all reasonable and non-discriminatory rules made and provided to Tenant in writing by Landlord's Building manager with respect to the use of contractor parking, materials delivery, freight, loading dock and service elevators, any required shutdown of utilities (including life-safety systems), storage of materials, coordination of work with the contractors of Landlord, and any other matter in connection with this Workletter, including, without limitation, the construction of the Tenant Improvements, provided that such rules shall not include additional charge for the use of freight, loading dock and service elevators or storage of materials. Tenant shall pay an oversight and supervisory fee (the "**Coordination Fee**") to Landlord in an amount equal to one percent (1.0%) of the Final Costs.

(ii) Indemnity. Tenant's indemnity of Landlord as set forth in the Lease shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to any act or omission of Tenant or Tenant's Agents, or anyone directly or indirectly employed by any of them, or in connection with Tenant's non-payment of any amount arising out of the Tenant Improvements and/or Tenant's disapproval of all or any portion of any request for payment. Such indemnity by Tenant, as set forth in the Lease, shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to Landlord's performance of any ministerial acts reasonably necessary (A) to permit Tenant to complete the Tenant Improvements, and (B) to enable Tenant to obtain any related building permit or certificate of occupancy; provided, however, nothing contained in this Workletter shall be deemed to indemnify Landlord from or against liability caused solely by Landlord's negligence or willful misconduct.

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

(c) Insurance Requirements.

(i) General Coverages. All of Tenant's Agents shall carry employer's liability and worker's compensation insurance covering all of their respective employees, and shall also carry commercial general liability insurance, including personal and bodily injury, property damage and completed operations liability, all with limits, in form and with companies as are required to be carried by Tenant as set forth in the Lease.

(ii) Special Coverages. Tenant or Contractor shall carry "Builder's All Risk" insurance in an amount approved by Landlord covering the construction of the Tenant Improvements, and such other insurance as Landlord may require, it being understood and agreed that the Tenant Improvements shall be insured by Tenant pursuant to the Lease immediately upon completion thereof. Such insurance shall be in amounts and shall include such extended coverage endorsements as may be reasonably required by Landlord, and shall be in form and with companies as are required to be carried by Tenant as set forth in the Lease.

(iii) General Terms. Certificates for all of the foregoing insurance coverage shall be delivered to Landlord before the commencement of construction of the Tenant Improvements and before the Contractor's equipment is moved onto the site. All such policies of insurance must contain a provision that the company writing said policy will endeavor to give Landlord thirty (30) days' prior written notice of any cancellation of such insurance. In the event that the Tenant Improvements are damaged by any cause during the course of the construction thereof, Tenant shall immediately repair the same at Tenant's sole cost and expense. Tenant's Agents shall maintain all of the foregoing insurance coverage in force until the Tenant Improvements are fully completed and accepted by Landlord, except for any Products and Completed Operations Coverage insurance required by Landlord, which is to be maintained for one (1) year following completion of the work and acceptance by Landlord and Tenant. All policies carried hereunder shall insure Landlord, Wareham Property Group as Landlord's manager, and Tenant, as their interests may appear, as well as Tenant's Agents. All insurance, except Workers' Compensation, maintained by Tenant's Agents shall preclude subrogation claims by the insurer against anyone insured thereunder. Such insurance shall provide that it is primary insurance as respects Landlord and Tenant and that any other insurance maintained by Landlord or Tenant is excess and noncontributing with the insurance required hereunder. The requirements for the foregoing insurance shall not derogate from the provisions for indemnification of Landlord by Tenant under the Lease and/or this Workletter.

(d) Governmental Compliance. The Tenant Improvements shall comply in all respects with the following: (i) the Code and other applicable federal, state, city and/or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person or entity; (ii) applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters) and the National Electrical Code; (iii) building material manufacturer's specifications, and (iv) the Project's Sustainability Practices and the applicable Green Building Standards as set forth in Exhibit B-1. Landlord Work shall comply with all respects with the following: (i) the Code and other applicable federal, state, city and/or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person or entity; (ii) applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters) and the National Electrical Code; and (iii) building material manufacturer's specifications.

(e) Inspection by Landlord. Landlord shall have the right to inspect the Tenant Improvements during normal business hours upon no less than 48 hours' advance notice, provided however, that Landlord's failure to inspect the Tenant Improvements shall in no event constitute a waiver of any of Landlord's rights hereunder nor shall Landlord's inspection of the Tenant Improvements constitute Landlord's approval of the same. Should Landlord disapprove any portion of the Tenant Improvements, Landlord shall notify Tenant in writing of such disapproval and shall specify the items disapproved and the reasons therefor. Any defects or deviations in, and/or disapproval by Landlord of, the Tenant Improvements shall be rectified by Tenant at no expense to Landlord, provided however, that in the event Landlord determines that a defect or deviation exists or disapproves of any matter in connection with any portion of the Tenant Improvements and such defect, deviation or matter might adversely affect the mechanical, electrical, plumbing, heating, ventilating and air conditioning or life-safety systems of the Building, the structure or exterior appearance of the Building or any other tenant's use of such other tenant's leased premises, and Tenant fails to commence to remedy the same within thirty (30) days after Landlord's written notice thereof or Tenant fails to diligently execute the same to completion, Landlord may take such action as Landlord deems necessary, at Tenant's expense and without incurring any liability on Landlord's part, to correct any such defect, deviation and/or matter, including, without limitation, causing the cessation of performance of the construction of the Tenant Improvements until such time as the defect, deviation and/or matter is corrected to Landlord's reasonable satisfaction.

(f) Meetings. Tenant shall hold periodic meetings at a reasonable time with the Architect and the Contractor regarding the progress of the preparation of the Construction Drawings and the construction of the Tenant Improvements, which meetings shall be held at the Premises (unless otherwise notified by Tenant to Landlord), and Landlord and/or its agents shall receive prior written notice of, and shall have the right to attend, all such meetings. Upon Landlord's reasonable request, certain of Tenant's Agents shall attend such meetings. In addition, minutes shall be taken at all such meetings, and Landlord will be included in the distribution list for such minutes. One such meeting each month shall include the review of Contractor's current request for payment.

3.3 Notice of Completion; Copy of Record Set of Plans. Following completion of construction of the Tenant Improvements, Landlord shall cause a Notice of Completion to be recorded in the office of the Recorder of Alameda County and shall furnish a copy thereof to Tenant. Within thirty (30) days following the completion of construction, (i) Tenant shall cause the Architect and Contractor (A) to update the Approved Working Drawings as necessary to reflect all changes made to the Approved Working Drawings during the course of construction, (B) to certify to the best of their knowledge that the updated drawings are true and correct, which certification shall survive the expiration or termination of the Lease, and (C) to deliver to Landlord such updated drawings in accordance with Landlord's then-current CAD Requirements within ninety (90) days following issuance of a certificate of occupancy for the Premises, and (ii) Tenant shall deliver to Landlord a copy of all warranties, guaranties, and operating manuals and information relating to the improvements, equipment, and systems in the Premises. Tenant's obligations set forth in this Section are collectively referred to as the "**Completion Obligations.**"

SECTION 4

LANDLORD WORK

Landlord shall deliver the Premises in “warm shell” condition and in conformance with the base building standards as set forth on Exhibit B-2 hereto (the “Landlord Work”). The Landlord Work shall be performed in a good workmanlike manner and comply in all respects with the Code and other federal, state, city and/or quasi-governmental laws, codes, ordinances and regulations, as each may apply according to the rulings of the controlling public official, agent or other person or entity; the applicable standards of the American Insurance Association (formerly, the National Board of Fire Underwriters), and the National Electrical Code. Subject to the foregoing and the terms of the Lease, Tenant shall accept the Premises in its then existing, “AS-IS” condition.

SECTION 5

MISCELLANEOUS

5.1 Tenant’s Representative. Tenant has designated Dave Johnson as its sole representative with respect to the matters set forth in this Workletter, until further notice to Landlord, who shall have full authority and responsibility to act on behalf of Tenant as required in this Workletter.

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

5.3 Tenant’s Default. Notwithstanding any provision to the contrary contained in the Lease, if a Default by Tenant under the Lease (including, without limitation, this Workletter) has occurred and is continuing at any time on or before the substantial completion of the Tenant Improvements, then in addition to all other rights and remedies granted to Landlord pursuant to the Lease, Landlord shall have the right to withhold payment of all or any portion of the Tenant Improvement Allowance until such time as such Default is cured pursuant to the terms of the Lease.

APPLICABLE GREEN BUILDING STANDARDS

Tenant shall cause the Architect, Engineers and General Contractor (the Tenant's "TI Project Team") to rate the proposed Tenant Improvements on a "LEED" scorecard with a goal of achieving at least a "Gold" level as set forth by the USGBC, and shall provide that information, attested to by TI Project Team as part of the Space Plan and Working Drawings approval process.

Tenant agrees to direct the Architect and Engineers to design the Tenant Improvements such that they meet the following standards:

Under the LEED 2009 Core & Shell Rating System, achieving certain credits is dependent upon integrating the credit requirements into a binding tenant lease or sales agreement. In these cases, the technical requirements must be clearly identified as part of the tenants' scope, and enforced through the tenant lease agreement. The following sample text can be referenced to that end.

TENANT'S WORK

Tenant agrees that Tenant's Work shall include the following

SUSTAINABLE DESIGN

Please refer to the LEED Reference Guide for Green Building Design and Construction 2009 for detailed information on the specific credits and goals described below.

WATER EFFICIENCY

WEc3-Water use Reduction (reduce by 40%)

Tenant installed Plumbing fixtures must comply with the following applicable maximum fixture flush and flow rates.

- Water closet: 1.1 gpf
- Urinals: 0.125 gpf
- Lavatory faucets: 0.35 gpm
- Kitchen faucets: 1.5 gpm
- Showerheads: 1.5 gpm

ENERGY & ATMOSPHERE

EAp3 – Fundamental Refrigerant Management and EAc4 – Enhanced Refrigerant Management –

Tenant installed heating, ventilating, air conditioning and refrigeration (HVAC&R) systems must contain zero Chlorofluorocarbon (CFC) based refrigerants and either eliminate the use of chemical refrigerants or select refrigerants that minimize or eliminate the emission of compounds that contribute to ozone depletion.

Refer to LEED 2009 EAc4 Enhanced Refrigerant Management for details on calculating maximum thresholds for refrigerant contributions to ozone depletion and global warming potential.

2 Bryarl Street. Suite 300, San Francisco, CA 94105 1415.856.3000 perkinswill.com

EAc1 – Optimize Energy Performance

Tenant installed regulated building energy consuming systems demonstrate a minimum 20% improvement when measured by energy cost than a baseline building determined according to Appendix G of ASHRAE Standard 90.1-2007. Regulated energy includes lighting; HVAC; and service water heating for domestic or space heating purposes.

Refer to LEED 2009 EAp2 Minimum Energy Performance and EAc1 Optimize Energy performance for details on calculating baseline and proposed building performance.

INDOOR ENVIRONMENTAL QUALITY

IEQp1 – Minimum Indoor Air Quality Performance – Prerequisite

Mechanical ventilation systems must be designed using the ventilation rate procedure as defined by ASHRAE 62.1-2007, or the applicable local code, whichever is more stringent.

IEQp2 – Environmental Tobacco Smoke (ETS) Control – Prerequisite

Prohibit smoking inside the building and within 25 feet of all building entrances, outdoor air intakes, and operable windows.

IEQc1 – Outdoor Air Delivery Monitoring

Tenant installed ventilation systems must provide permanent monitoring systems that monitor CO2 concentrations within all mechanically ventilated densely occupied spaces and provide direct outdoor air flow measurement devices in air handling units where more than 20% of the design supply air flow serves non-densely occupied spaces. All naturally ventilated spaces must monitor CO2 concentrations and all CO2 monitors must be placed between 3 and 6 feet above the floor.

Refer to LEED 2009 IEQc1 Outdoor Air Delivery Monitoring for details on monitoring accuracy and integration into building automation system.

IEQc2 – Increased Ventilation

Tenant installed ventilation systems must increase breathing zone outdoor air ventilation rates by at least 30% above the minimum rates prescribed by ASHRAE 62.1-2007.

IEQc3.1 – Construction Indoor Air Quality Management Plan

Tenant construction must develop an Indoor Air Quality (IAQ) management plan that meets or exceeds the recommended control measures of the Sheet Metal and Air Conditioning National Contractors Association (SMACNA) IAQ Guidelines for Occupied Buildings under Construction, 2nd edition, 2007, ANSI/SMACNA 008-2008, Chapter 3. In addition, the plan should address:

- Protection of absorptive materials stored on-site and installed from moisture damage.
- Permanently installed air-handling equipment is not operated during construction unless filtration media with a minimum efficiency reporting value (MERV) of 8 are installed at each return air grille and return. Immediately before occupancy, replace all filtration media with the final design filtration media.

Refer to LEED 2009 IEQc3.1 – Construction Indoor Air Quality Management Plan – During Construction for details on IAQ plan requirements and reporting.

IEQc4.1-4.4 Low-Emitting Materials –

All adhesives and sealants used on the interior of the Tenant construction must comply to the VOC limits established by the South Coast Air Quality Management District (SCAQMD) Rule #1168. All paints and coatings used must not exceed the VOC limits established by Green Seal Standard GS-11, Green Seal Standard GC-03, and SCAQMD Rule #1113. All installed flooring must meet the requirements of IEQc4.3 Low-Emitting Materials – Flooring Systems. Carpet must meet the requirements of the Carpet and Rug Institute Green Label Plus program. Carpet adhesive must meet the requirements of IEQc4.1 Low-Emitting Materials – Adhesives and Sealants. Hard surface flooring must be FloorScore Standard certified. All flooring sealers, stains and finish must meet the SCAQMD Rule #1113 and tile setting adhesives must meet Rule #1168. All composite wood and agrifiber products used must comply with the no-added urea formaldehyde requirements of IEQc4.4 Low-Emitting Materials – Composite and Agrifiber Products.

Refer to LEED 2009 IEQc4.1 to 4.4 Low-Emitting Materials for further details on VOC limits and third-party certification requirements.

IEQc5 – Indoor chemical and pollutant source control –

Sufficiently exhaust each space where hazardous gases or chemicals may be present or used (e.g., garages, housekeeping and laundry areas, copying and printing rooms) to create negative pressure with respect to adjacent spaces when the doors to the room are closed. For each of these spaces, provide self-closing doors and deck-to-deck partitions or a hard-lid ceiling. The exhaust rate must be at least 0.50 cubic feet per minute (cfm) per square foot (0.15 cubic meters per minute per square meter) with no air recirculation. The pressure differential with the surrounding spaces must be at least 5 Pascals (Pa) (0.02 Inches or water gauge) on average and 1 Pa (0.004 Inches of water) at a minimum when the doors to the rooms are closed.

In mechanically ventilated buildings, each ventilation system that supplies outdoor air shall provide MERV 13 air filtration.

LANDLORD WORK / WARM-SHELL DESCRIPTION

OCCUPANCY

- Tower designed to accommodate “B” and “L” occupancies.

SITework / PARKING

- Exterior hardscape and landscape including site lighting, curbs, sidewalks and drive aisles, miscellaneous site furnishings and stormwater bio-filtration system.
- Hardscape and landscaping on podium rooftop (tower’s base), accessible from tower.
- Connection from podium roof terrace to pedestrian bridge.
- Landlord-provided Generac emergency generator with enclosure for life-safety and tenant purpose back-up power (1600kW / 2000 kVA/60Hz).
- Immediate connection to area commuter trains, buses and free EmeryGoRound shuttle.
- Ample visitor/transient parking in podium with tenant employee parking in adjacent 6100 Horton St Garage structure, including provisions for electric vehicle charging.
- Outdoor bike racks and large indoor, secured bike storage.
- Significant on-site public art.

STRUCTURE

- Structural slab on grade supported by auger piles, pile caps and grade beams.
- Steel superstructure for podium and commercial tower above.
- Lateral system using moment frames and buckling-restrained brace frames (BRB’s). Seismic importance of 1.0.
- Floors of concrete slab on metal deck. Floor load of 100 lbs/SF, reducible.
- Structural roof (100 lbs per SF, reducible), and central mechanical penthouse.
- Floor-to-floor height of 14’10” with top (9th) floor at 15’0”. Designed to allow robust lab MEP above a minimum finished ceiling height of 10’0”.
- Floor vibration: 3rd floor 14,000 micro-inches/second, Floors 4-9 18,000 micro-inches/second.

EXTERIOR SKIN

- Glass (curtainwall, storefront and ribbon window systems), metal panels and precast panels.
- Head of ribbon windows at 9’-0” above finished floor, sills at 3’-0.”
- Metal panels for penthouse and screened mechanical area.
- Accessible private exterior terraces on Floors 4-6.

COMMON AREAS / FACILITIES

- Double-height ground floor lobby, complete with main greeting/security desk, and all interior finishes, FF&E and art.
- Ground floor main electrical room, and fire control room with main fire alarm panel.
- Covered loading dock with roll-down door, at-grade area for shipping/receiving, and hydraulic scissor lift.
- Trash room.
- 750 GPM Patterson fire pump and 60,000 gallon fire water storage tank.
- Telecom main point of entry (MPOE) room. At grade with pathway to stacked tower riser closets on every floor. Open access to main telco providers (AT&T, Comcast and Paxio Fiber).
- One service/freight elevator with capacity of 5,000 lbs. (sized to accommodate an 8 ft. chemical fume hood). This elevator is accessible from loading dock and services all floors plus roof and penthouse.
- Three destination dispatch passenger elevators serving the commercial tower with capacity of 3,500 lbs. Fourth pit for potential future elevator.
- Two exit stair towers completed including drywall enclosure finished and painted on interior, stair treads, handrails, lighting, and stairway pressurization/smoke evacuation.

FULL FLOOR TENANT AREAS:

- Central, fully finished men's and women's restrooms on each floor.
- Janitor closet on every floor.
- Electrical closet with access to main bus duct riser on every floor. Closets have been sized to allow some amount of future tenant transformers.
- IDF riser closet on every floor.
- Tenant and employee access to nearby shared campus conference facility and workout room.
- Exterior cladding and framing ready for tenant insulation and drywall.

MECHANICAL

- Floor heights and structural beam depths allow for 22" duct height while still maintaining a 10'0" finished ceiling, with higher ceilings possible. Indicative duct layout drawings can be shared upon request.
- Stand-alone split system serves the main lobby and ground floor back of house areas.
- Completed vertical shafts sized to accommodate supply air mains, exhaust duct mains, and chilled and heating water risers.
- 74"x24" supply air duct stub-out at each shaft (typ. x3) per floor
- 66"x24" general lab exhaust sub-duct stub-out at each shaft (typ. x3) per floor
- 4" process condenser water stub-out at each floor
- 4" heat hot water stub-out at each floor

- Central equipment (air handlers, exhaust fans, chillers, boilers, pumps, cooling tower, and associated equipment) designed to supply 100% outside air of 1.6 CFM per square foot of tenant area.
- (3) 100,000 CFM GovernAir custom air handling units
- (4) 60,000 CFM Lorin Cook lab exhaust fans
- (2) 750 ton Trane water cooled chillers
- (1) 400 ton heat exchanger for process cooling
- (1) 1875 GPM BAC cooling tower
- (4) 5,600 MBH Aerco output boilers.
- Central Building Management System (BMS) to control core HVAC.
- Pre-identified future louver area on each floor allows for potential additional on-floor air handler for greater capacities, if necessary.
- High-rise smoke evacuation system as required by code for base building shell.
- Core restrooms on every floor served by dedicated bathroom exhaust riser with rooftop exhaust fan. Transfer/make-up air will be provided as part of Tenant Improvement.

ELECTRICAL

- PG&E transformer at 100kVA, 480Y/277V.
- Transformer serves installed main switchboard rated at 4,000 amp, 480Y/277V.
- 3000 amp, 277/480V 3P, 4W bus duct runs from main electrical room up to penthouse and connecting all on-floor tenant electrical rooms. Tenants have their pro-rata share of access to this electrical riser. Assuming a typical 60/40 lab to office mix for any tenant, this electrical system allows for power and lighting at 5.2W/sq.ft. in office areas and of 6.2W/sq.ft. in lab areas. Please note that the Mechanical system electrical needs have been accommodated outside/on top of of these amounts.
- Each tenant electrical room has a 200 amp 277/480V panel, a 45 kVA step down transformer, and a 100 amp 120/208V panel. If Tenants' electrical allowance (above) permits, they can add taps to the 480V bus duct to access more power. The electrical room on each floor has been sized to allow for the siting of transformer(s) tenants will likely employ.
- Landlord-provided 1.5 MW 60Hz 480V diesel standby emergency generator at grade at building exterior. Generator is sized for 2400A. Two Automatic Transfer Switches (ATS) divide life safety loads from tenant discretionary loads. 800A is allocated for life safety purposes and 1600 A for tenant discretionary loads. Off this riser each floor has a 200A emergency panel (rated 277/480V, 3-phase, 4 wire) to which tenants have their pro-rata access. There is an 800A emergency panel on the roof. 400A was used to support certain AHU and EF HVAC equipment, and the 400A balance is available for future loads. The opportunity to serve greater tenant loads would be through separate standby power equipment on ground floor.

PLUMBING:

- Building storm and overflow drainage system, including bio-retention system to biologically treat/filter all site-generated storm water.
- Backflow prevention device at main water entry point.
- Cold and hot water provided to all restrooms in core and shell.
- Two 2" Cold water stub outs on every floor.
- 4" Waste and 3" vent stub on every floor, located at risers in each quadrant.
- Tenant domestic hot water to be via electric hot water heaters as part of Tenant Improvements.
- Natural gas riser to serve core and shell domestic hot water needs and building penthouse HVAC heat boilers. Tenant natural gas available at each floor with 1-1/4" stub-out at 2psi. Tenant to provide pressure reducing valves and sub-meters.
- No provisions for acid waste. Neutralization, if and as required, to be performed by tenants in tenant spaces.

FIRE / LIFE SAFTEY:

- Existing 2-hour separation between floors.
- Base building sprinkler system with shell configuration heads on every floor as part of base building.
- Fire pump with 60,000 gallon emergency fire water tank at ground floor.
- Main fire alarm closet with main fire alarm panel at ground level (Notifier by Honeywell).
- Code fire alarm devices for core areas at every floor.
- 2-hour fire rating at north façade met with addition of tenant-supplied interior drywall.

SECURITY / TELECOM:

- Main MPOE room at grade, with central risers up commercial tower connecting tenant IDF rooms on every floor.
- Card access at all exterior points of entry and at parking garage.
- Manned security station in main lobby with 24/7 manned campus security.

LABORATORY RULES AND REGULATIONS

1. Any laboratory equipment (glass and cage washers, sterilizers, centrifuges, etc.) being used during normal business hours must be properly insulated for noise to prevent interruption of other tenants' business. Landlord reserves the right to request all equipment be reasonably insulated prior to occupancy. Should other tenants complain of noise, Tenant will be responsible for abating any noise issues, at Tenant's sole cost.
2. Any damages to property due to leaks from laboratory equipment of Tenant will be the sole responsibility of Tenant. Should damage occur in other tenant spaces, any and all damages and clean-up will be the responsibility of Tenant.
3. Animal activities are a recognized and necessary process in the biotech industry. It can only be conducted by laboratory tenants pursuant to all the requirements of their respective lease (including any "Use" clause) and requires specific, written approval by Landlord in advance, which shall not be unreasonably withheld, conditioned or delayed. Any animal operations shall be conducted pursuant to all regulations, standards and best industry practices relating to them.
4. The Project may be a mixed-use facility in which laboratory tenants share space with office tenants. To reduce the potential interaction with office tenants and their employees and visitors with any biotech animal operations, any animal testing, delivery and removal of animals and/or any equipment, foods, cleaners, etc. associated with animal activities must be coordinated through the loading dock and freight elevator after hours and with the cooperation and approval of building management and security personnel. No cartons, containers or cardboard boxes bearing the nature of contents may be stored or left in common area spaces, to include any garage/freight areas. Feed bags, animal carriers, and any and all containers must be disposed of properly and with discretion.
5. All exterior signage relating to laboratory operations (i.e. visible to common areas including corridors) must be kept to the minimum required by law. All signs must have Landlord's approval prior to installation.

RULES AND REGULATIONS

1. No sidewalks, entrance, passages, courts, elevators, vestibules, stairways, corridors or halls shall be obstructed or encumbered by Tenant or used for any purpose other than ingress and egress to and from the Premises and if the Premises are situated on the ground floor of the Project, Tenant shall further, at Tenant's own expense, keep the sidewalks and curb directly in front of the Premises clean and free from rubbish.

2. No awning or other projection shall be attached to the outside walls or windows of the Project without the prior written consent of Landlord. No curtains, blinds, shades, drapes or screens shall be attached to or hung in, or used in connection with any window or door of the Premises, without the prior written consent of Landlord which shall not be unreasonably withheld, conditioned or delayed. Such awnings, projections, curtains, blinds, shades, drapes, screens and other fixtures must be of a quality, type, design, color, material and general appearance approved by Landlord, and shall be attached in the manner reasonably approved by Landlord. All lighting fixtures hung in offices or spaces which can be seen from the outside the Premises must be of a quality, type, design, bulb color, size and general appearance reasonably approved by Landlord.

3. No sign, advertisement, notice, lettering, decoration or other thing shall be exhibited, inscribed, painted or affixed by Tenant on any part of the outside of the Premises or of the Project, without the prior written consent of Landlord. In the event of the violation of the foregoing by Tenant, Landlord may remove same without any liability, and may charge the expense incurred by such removal to Tenant.

4. The sashes, sash doors, skylights, windows and doors that reflect or admit light or air into the halls, passageways or other public places in the Project shall not be covered or obstructed by Tenant, nor shall any bottles, parcels or other articles be placed on the window sills that can be seen from the outside of the Premises or in the public portions of the Project.

5. No showcases or other articles shall be put in front of or affixed to any part of the exterior of the Project, nor placed in public portions thereof without the prior written consent of Landlord.

6. The water and wash closets and other plumbing fixtures shall not be used for any purposes other than those for which they were constructed, and no sweepings, rubbish, rags or other substances shall be thrown therein. All damages resulting from any misuse of the fixtures shall be borne by Tenant to the extent that Tenant or Tenant's agents, servants, employees, contractors, visitors or licensees shall have caused the same.

7. Tenant shall not mark, paint, drill into or in any way deface any part of the Premises or the Project other than Decoration which is permitted under the Lease. No boring, cutting or stringing of wires belonging to Landlord shall be permitted, except with the prior written consent of Landlord, and as Landlord may direct.

8. No animal or bird of any kind shall be brought into or kept in or about the Premises or the Project, except registered service animals.
9. Tenant shall cooperate with Landlord's efforts to implement the Project's Sustainability Practices and the applicable Green Building Standards, including, but not limited to, complying with Landlord's then-current energy saving efforts and participating in any recycling programs and occupant satisfaction and transportation surveys.
10. Tenant shall not make, or permit to be made, any unseemly or unreasonably disturbing noises or disturb or unreasonably interfere with occupants of the Project, or neighboring buildings or premises, or those having business with them. Tenant shall not throw anything out of the doors, windows or skylights or down the passageways.
11. Tenant shall regularly conduct cleaning and janitorial activities, especially in bathrooms, kitchens and janitorial spaces, to remove mildew and prevent moist conditions and shall comply with the Project's Sustainability Practices and the applicable Green Building Standards.
12. No additional locks, bolts or mail slots of any kind shall be placed upon any of the doors or windows by Tenant, nor shall any change be made in existing locks or the mechanism thereof. Tenant must, upon the termination of the tenancy, restore to Landlord all keys of stores, offices and toilet rooms, either furnished to, or otherwise procured by Tenant, and in the event of the loss of any keys so furnished, Tenant shall pay to Landlord the cost thereof.
13. All removals, or the carrying in or out of any safes, freight, furniture, construction material, bulky matter or heavy equipment of any description must take place during the hours which Landlord or its agent may reasonably determine from time to time. Landlord reserves the right to prescribe the weight and position of all safes, which must be placed upon two-inch thick plank strips to distribute the weight. The moving of safes, freight, furniture, fixtures, bulky matter or heavy equipment of any kind must be made upon previous notice to the Building Manager and in a manner and at times prescribed by him, and the persons employed by Tenant for such work are subject to Landlord's prior approval. Landlord reserves the right to inspect all safes, freight or other bulky articles to be brought into the Project and to exclude from the Project all safes, freight or other bulky articles which violate any of these Rules and Regulations or the Lease of which these Rules and Regulations are a part.
14. Tenant shall not purchase janitorial or maintenance or other like service from any company or persons not approved by Landlord. Landlord shall approve a sufficient number of sources of such services to provide Tenant with a reasonable selection, but only in such instances and to such extent as Landlord in its judgment shall consider consistent with security and proper operation of the Project.
15. Landlord shall have the right to prohibit any advertising conducted by Tenant referring to the Project which, in Landlord's reasonable opinion, tends to impair the reputation of the Project or its desirability as a first class building for offices and/or commercial services and upon notice from Landlord, Tenant shall refrain from or discontinue such advertising.

16. Landlord reserves the right to exclude from the Project between the hours of 6:00 p.m. and 8:00 a.m. Monday through Friday, after 1:00 p.m. on Saturdays and at all hours Sundays and legal holidays, all persons who do not present a pass to the Project issued by Landlord. Landlord may furnish passes to Tenant so that Tenant may validate and issue same. Tenant shall safeguard said passes and shall be responsible for all acts of persons in or about the Project who possess a pass issued to Tenant.

17. Tenant's vendors and contractors shall, while in the Premises or elsewhere in the Project, be subject to and under the control and direction of the Building Manager (but not as agent or servant of said Building Manager or of Landlord) and shall be required to maintain such insurance coverage as reasonably approved by Landlord with liability policies naming Landlord and the Indemnitees as additional insureds.

18. If the Premises is or becomes infested with vermin as a result of the use or any misuse or neglect of the Premises by Tenant, its agents, servants, employees, contractors, visitors or licensees, Tenant shall forthwith at Tenant's expense cause the same to be exterminated from time to time to the satisfaction of Landlord and shall employ such licensed exterminators as shall be approved in writing in advance by Landlord.

19. The requirements of Tenant will be attended to only upon application at the office of the Project. Project personnel shall not perform any work or do anything outside of their regular duties unless under special instructions from the office of the Landlord.

20. Canvassing, soliciting and peddling in the Project are prohibited and Tenant shall cooperate to prevent the same.

21. No water cooler, air conditioning unit or system or other apparatus shall be installed or used by Tenant without the written consent of Landlord which shall not be unreasonably withheld, conditioned or delayed.

22. There shall not be used in any premises, or in the public halls, plaza areas, lobbies, or elsewhere in the Project, either by Tenant or by jobbers or others, in the delivery or receipt of merchandise, any hand trucks or dollies, except those equipped with rubber tires and sideguards.

23. Tenant, Tenant's agents, servants, employees, contractors, licensees, or visitors shall not park any vehicles in any driveways, service entrances, or areas posted "No Parking" and shall comply with any other parking restrictions imposed by Landlord from time to time.

24. Tenant shall install and maintain, at Tenant's sole cost and expense, an adequate visibly marked (at all times properly operational) fire extinguisher next to any duplicating or photocopying machine or similar heat producing equipment, which may or may not contain combustible material, in the Premises.

25. Tenant shall make reasonable efforts to close the window coverings of any areas of the Premises that remain fully lighted after 10:00 pm.

26. Tenant shall not use the name of the Project for any purpose other than as the address of the business to be conducted by Tenant in the Premises, nor shall Tenant use any picture

of the Project in its advertising, stationery or in any other manner without the prior written permission of Landlord. Landlord expressly reserves the right at any time to change said name without in any manner being liable to Tenant therefor.

27. Tenant shall not conduct any restaurant, catering operations, or similar activities at the Premises; provided, however, Tenant may cook and/or prepare food and beverage solely for in-Premises consumption by its employees provided that no odors of cooking or other processes emanate from the Premises. Tenant shall not install or permit the installation or use of any vending machine or permit the delivery of any food or beverage to the Premises except by such persons and in such manner as are approved in advance in writing by Landlord.

28. The Premises shall not be used as an employment agency, a public stenographer or typist, a labor union office, a physician's or dentist's office, a dance or music studio, a school, a beauty salon, or barber shop, the business of photographic, multilith or multigraph reproductions or offset printing (not precluding using any part of the Premises for photographic, multilith or multigraph reproductions solely in connection with Tenant's own business and/or activities), a restaurant or bar, an establishment for the sale of confectionery, soda, beverages, sandwiches, ice cream or baked goods, an establishment for preparing, dispensing or consumption of food or beverages of any kind in any manner whatsoever, or news or cigar stand, or a radio, television or recording studio, theatre or exhibition hall, or manufacturing, or the storage or sale of merchandise, goods, services or property of any kind at wholesale, retail or auction, or for lodging, sleeping or for any immoral purposes.

29. 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. Tenant shall not install any machine or equipment which causes noise, heat, cold or vibration to be transmitted to the structure of the building in which the Premises are located without Landlord's prior written consent, which consent may be conditioned on such terms as Landlord may require. Tenant shall not place a load upon any floor of the Premises exceeding the floor load per square foot that such floor was designed to carry and which is allowed by Law.

30. Tenant shall not store any vehicle within the parking area. Tenant's parking rights are limited to the use of parking spaces for short-term parking, of up to twenty-four (24) hours, of vehicles utilized in the normal and regular daily travel to and from the Project. Tenants who wish to park a vehicle for longer than a 24-hour period shall notify the Building Manager for the Project and consent to such long-term parking may be granted for periods up to two (2) weeks. Any motor vehicles parked without the prior written consent of the Building Manager for the Project for longer than a 24-hour period shall be deemed stored in violation of this rule and regulation and shall be towed away and stored at the owner's expense or disposed of as provided by Law.

31. Smoking is prohibited in the Premises, the Building and all enclosed Common Areas of the Project, including all lobbies, all hallways, all elevators and all lavatories.

RIDER 1

RENT COMMENCEMENT DATE AGREEMENT

Emery Station West, LLC, a California limited liability company ("**Landlord**"), and _____ a _____ corporation ("**Tenant**"), have entered into a certain Office/Laboratory Lease dated as of _____, 2018 (the "**Lease**"). Unless otherwise defined herein, all capitalized terms shall have the same meaning ascribed to them in the Lease.

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Rent Commencement Date and Expiration Date of the Lease as provided for in Section 2.2(b) of the Lease.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and in the Lease, Landlord and Tenant agree as follows:

1. The Rent Commencement Date is acknowledged to be _____. The Expiration Date is acknowledged to be _____.

2. Tenant hereby confirms that it has accepted possession of the Premises pursuant to the terms of the Lease and that the Lease is in full force and effect.

3. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.

4. The Lease and this Rent Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT:

_____,
a _____ corporation

By: _____
Print Name: _____
Its: _____

By: _____
Print Name: _____
Its: _____

LANDLORD:

Emery Station West, LLC,
a California limited liability company

By: ES West Associates, LLC
a California limited liability company,
its Managing Member

By: Wareham-NZL, LLC
a California limited liability company,
its Manager

By: _____
Richard K. Robbins
Manager

SCHEDULE 1
SUPERIOR RIGHTS

The rights of Stanford Health Care.

Schedule 1

SCHEDULE 2
SPECIAL SUPERIOR RIGHTS

The rights of Stanford Health Care.

Schedule 2

Rule 13a-14(a) Certification of Principal Financial Officer

CERTIFICATIONS

I, Michael Ostrach, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Dynavax Technologies Corporation (the “registrant”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

By: _____ /s/ MICHAEL OSTRACH
Michael Ostrach
Chief Financial Officer
(Principal Financial Officer)

Date: November 6, 2018

**Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code**

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), I, Eddie Gray, Chief Executive Officer of Dynavax Technologies Corporation (the "Company"), hereby certify that, to the best of my knowledge:

(i) The Company's Quarterly Report on Form 10-Q for the period ended September 30, 2018 (the "Periodic Report"), to which this Certificate is attached as Exhibit 32.1, fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

(ii) The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned has set his hand hereto as of the 6th day of November, 2018.

By: _____ /s/ EDDIE GRAY

**Eddie Gray
Chief Executive Officer
(Principal Executive Officer)**

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Dynavax Technologies Corporation under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.

**Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code**

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), I, Michael Ostrach, Chief Financial Officer of Dynavax Technologies Corporation (the "Company"), hereby certify that, to the best of my knowledge:

(i) The Company's Quarterly Report on Form 10-Q for the period ended September 30, 2018 (the "Periodic Report"), to which this Certificate is attached as Exhibit 32.2, fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

(ii) The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

In Witness Whereof, the undersigned has set his hand hereto as of the 6th day of November, 2018.

By: _____ /s/ MICHAEL OSTRACH

**Michael Ostrach
Chief Financial Officer
(Principal Financial Officer)**

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Dynavax Technologies Corporation under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.