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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, 2011

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	**33-0728374**
(State or other jurisdiction of incorporation or organization)	**(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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registration was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐	Smaller reporting company	☐

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

As of October 27, 2011, the registrant had outstanding 126,808,747 shares of common stock.

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DYNAVAX TECHNOLOGIES CORPORATION

This Quarterly Report on Form 10-Q includes "Dynavax" and "HEPLISAV" which are trademarks of Dynavax Technologies Corporation. Other brands, names and trademarks mentioned in this Quarterly Report on Form 10-Q are property of their respective owners.

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. Forward-looking statements are based on our beliefs and assumptions and on information currently available to our management. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expect," "plan," "anticipate," "believe," "estimate," "project," "predict," "potential" and similar expressions intended to identify forward-looking statements. Our forward-looking statements include discussions regarding our business and financing strategies, research and development, preclinical and clinical product development efforts, intellectual property rights and ability to commercialize our product candidates, as well as the timing of the clinical development and potential regulatory approval of our products, uncertainty regarding our future operating results and prospects for profitability. Our actual results may vary materially from those in such forward-looking statements as a result of various factors that are identified in "Item 1A Risk Factors" and elsewhere in this document. All forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q. We assume no obligation to update any forward-looking statements.

PART I. FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

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

	September 30, 2011 (Unaudited)	December 31, 2010 (Note 1)
Assets		
Current assets:		
Cash and cash equivalents	$ 19,072	$ 22,453
Marketable securities	34,149	49,701
Accounts receivable	783	1,001
Prepaid expenses and other current assets	1,393	1,360
Total current assets	55,397	74,515
Property and equipment, net	6,127	6,404
Goodwill	2,312	2,312
Restricted cash	659	652
Other intangible assets, net	0	299
Other assets	224	67
Total assets	$ 64,719	$ 84,249
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 1,313	$ 2,329
Accrued liabilities	7,316	10,159
Deferred revenues	1,429	1,429
Total current liabilities	10,058	13,917
Deferred revenues, noncurrent	4,583	5,655
Long-term note payable to Symphony Dynamo Holdings LLC (Holdings)	12,342	10,939
Long-term contingent liability to Holdings	877	843
Other long-term liabilities	630	784
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Preferred stock: $0.001 par value; 5,000 shares authorized and no shares issued and outstanding at September 30, 2011 and December 31, 2010	0	0
Common stock: $0.001 par value; 250,000 and 150,000 shares authorized at September 30, 2011 and December 31, 2010, respectively; 125,611 and 115,611 shares issued and outstanding at September 30, 2011 and December 31, 2010, respectively	126	116
Additional paid-in capital	397,996	369,686
Accumulated other comprehensive loss:		
Unrealized loss on marketable securities available-for-sale	(6)	(17)
Cumulative translation adjustment	(612)	(729)
Total accumulated other comprehensive loss	(618)	(746)
Accumulated deficit	(361,275)	(316,945)
Total stockholders' equity	36,229	52,111
Total liabilities and stockholders' equity	$ 64,719	$ 84,249

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,	
	2011	2010	2011	2010
Revenues:				
Collaboration revenue	$ 369	$10,402	$ 7,098	$ 19,164
Grant revenue	658	1,218	2,437	2,697
Service and license revenue	147	29	652	323
Total revenues	1,174	11,649	10,187	22,184
Operating expenses:				
Research and development	11,777	14,204	39,706	40,729
General and administrative	4,217	3,951	13,025	12,694
Amortization of intangible assets	0	245	299	735
Total operating expenses	15,994	18,400	53,030	54,158
Loss from operations	(14,820)	(6,751)	(42,843)	(31,974)
Interest income	18	12	74	53
Interest expense	(485)	(399)	(1,462)	(1,229)
Other income (expense)	58	2,140	(99)	(9,036)
Net loss	$ (15,229)	$ (4,998)	$ (44,330)	$ (42,186)
Basic and diluted net loss per share	$ (0.12)	$ (0.06)	$ (0.37)	$ (0.57)
Shares used to compute basic and diluted net loss per share	124,069	86,826	119,244	74,519

See accompanying notes.

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

	Nine Months Ended September 30,	
	2011	2010
Operating activities		
Net loss	$(44,330)	$(42,186)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,009	1,114
Amortization of intangible assets	299	735
(Gain)/loss on disposal of assets	(8)	0
Non-cash interest associated with long-term note payable to Holdings	1,403	1,198
Fair value adjustments to the common stock, warrant and contingent liability issued to Holdings	34	8,917
Accretion and amortization of marketable securities	895	125
Stock-based compensation expense	3,934	1,552
Changes in operating assets and liabilities:		
Accounts receivable	218	(360)
Prepaid expenses and other current assets	(33)	(493)
Restricted cash and other assets	(164)	(2,054)
Accounts payable	(1,016)	381
Accrued liabilities and other long term liabilities	(2,997)	9,947
Deferred revenues	(1,072)	(12,360)
Net cash used in operating activities	(41,828)	(33,484)
Investing activities		
Purchases of marketable securities	(38,007)	(30,894)
Proceeds from maturities of marketable securities	52,675	11,750
Purchases of property and equipment, net	(578)	(133)
Proceeds from the sale of property and equipment	14	0
Net cash provided by (used in) investing activities	14,104	(19,277)
Financing activities		
Proceeds from issuance of common stock, net of issuance costs	24,078	44,124
Proceeds from employee stock purchase plan	132	72
Proceeds from exercise of stock options and delivery of restricted stock units	169	71
Proceeds from exercise of warrants	7	0
Net cash provided by financing activities	24,386	44,267
Effect of exchange rate on cash and cash equivalents	(43)	(17)
Net decrease in cash and cash equivalents	(3,381)	(8,511)
Cash and cash equivalents at beginning of period	22,453	36,720
Cash and cash equivalents at end of period	$ 19,072	$ 28,209
Supplemental disclosure of cash flow information		
Disposal of fully depreciated assets	$ 845	$ 0
Net change in unrealized losses on marketable securities, net	$ 11	$ 3

See accompanying notes.

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

1. Organization and Summary of Significant Accounting Policies

Dynavax Technologies Corporation ("Dynavax" or the "Company"), a clinical-stage biopharmaceutical company, discovers and develops novel products to prevent and treat infectious and inflammatory diseases. Our lead product candidate is HEPLISAV™, a Phase 3 investigational adult hepatitis B vaccine designed to provide rapid and superior protection with fewer doses than current licensed vaccines.

Our pipeline of product candidates includes: HEPLISAV; clinical-stage programs for our Universal Flu vaccine, autoimmune program partnered with GlaxoSmithKline ("GSK") and hepatitis C and hepatitis B therapies; and a preclinical program partnered with AstraZeneca AB ("AstraZeneca"). We compete with pharmaceutical companies, biotechnology companies, academic institutions and research organizations in developing therapies to prevent or treat infectious and inflammatory diseases. Our product candidates are based on the use of immunostimulatory and immunoregulatory sequences. We originally incorporated in California on August 29, 1996 under the name Double Helix Corporation, and we changed our name to Dynavax Technologies Corporation in September 1996. We reincorporated in Delaware on March 26, 2001.

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 only of normal recurring adjustments, which we consider necessary to fairly state our financial position and the results of our operations and cash flows. Interim-period results are not necessarily indicative of results of operations or cash flows for a full-year period or any other interim-period. The condensed consolidated balance sheet at December 31, 2010 has been derived from audited financial statements at that date, but does not include all 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, 2010 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 subsidiaries, Rhein Biotech GmbH ("Rhein" or "Dynavax Europe") and Symphony Dynamo, Inc. ("SDI"). All significant intercompany accounts and transactions have been eliminated. We have reclassified the prior year deferred rent balance from current accrued liabilities to other long-term liabilities in order to conform to the current year presentation. We operate in one business segment, which is the discovery and development of biopharmaceutical products.

Liquidity and Financial Condition

We have incurred significant operating losses and negative cash flows from operations since our inception. As of September 30, 2011, we had cash, cash equivalents and marketable securities of $53.2 million, restricted cash of $0.7 million and working capital of $45.3 million. We currently estimate that we have sufficient cash resources to meet our anticipated cash needs through the next 12 months based on cash and cash equivalents and marketable securities on hand at September 30, 2011 and anticipated revenues and funding from existing agreements.

In order to continue development of our product candidates, particularly HEPLISAV, we will need to raise additional funds. This may occur through future public or private financings, and/or strategic alliance and licensing arrangements. Sufficient funding may not be available on acceptable terms or at all. Additional equity financings, if completed, could result in significant dilution or otherwise adversely affect the rights of existing stockholders. If adequate funds are not available in the future, we would need to delay, reduce the scope of, or put on hold the HEPLISAV program or our other development programs while we seek strategic alternatives.

The accompanying financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and the settlement of liabilities in the normal course of business. The condensed consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from uncertainty related to our ability to continue as a going concern.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the unaudited condensed consolidated financial statements and accompanying notes. Actual results may differ from these estimates.

Significant Accounting Policies

We believe that there have been no substantive changes in our significant accounting policies during the nine months ended September 30, 2011 as compared with those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2010 other than the changes to our accounting policies related to revenue recognition as discussed below.

Revenue Recognition

Our revenues are derived from collaborative and service agreements as well as grants. We enter into license and manufacturing agreements and collaborative research and development arrangements with pharmaceutical and biotechnology partners that may involve multiple deliverables. Our arrangements may include one or more of the following elements: upfront license payments, cost reimbursement for the performance of research and development, milestone payments, other contingent payments, contract manufacturing service fees, royalties and license fees. Each deliverable in the arrangement is evaluated to determine whether it meets the criteria to be accounted for as a separate unit of accounting or whether it should be combined with other deliverables. We recognize revenue when there is persuasive evidence that an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured.

On January 1, 2011, we adopted on a prospective basis Accounting Standards Update ("ASU") 2009-13, "Multiple-Deliverable Revenue Arrangements" ("ASU 2009-13"), which amends the criteria related to identifying separate units of accounting and provides guidance on whether multiple deliverables exist, how an arrangement should be separated and the consideration allocated. The adoption of the standard did not impact our financial position or results of operations as of and for the nine months ended September 30, 2011 as we did not enter into or materially modify any multiple-element arrangements during that period. The adoption of this standard may result in revenue recognition patterns for future agreements that are different from those recognized for our existing multiple-element arrangements.

Non-refundable upfront fees received for license and collaborative agreements entered into prior to January 1, 2011 and other payments under collaboration agreements where we have continuing performance obligations related to the payments are deferred and recognized over our expected performance period. Revenue is recognized on a ratable basis, unless we determine that another methodology is more appropriate, through the date at which our performance obligations are completed. Management makes its best estimate of the period over which we expect to fulfill our performance obligations, which may include clinical development activities. Given the uncertainties of research and development collaborations, significant judgment is required to determine the duration of the performance period. We recognize cost reimbursement revenue under collaborative agreements as the related research and development costs are incurred, as provided for under the terms of these agreements.

On January 1, 2011, we elected to prospectively adopt ASU 2010-17, "Milestone Method of Revenue Recognition" ("ASU 2010-17"). Under the milestone method, contingent consideration received from the achievement of a substantive milestone is recognized in its entirety in the period in which the milestone is achieved. A milestone is defined as an event (i) that can only be achieved based in whole or in part on either the entity's performance or on the occurrence of a specific outcome resulting from the entity's performance, (ii) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved, and (iii) that would result in additional payments being due to the entity. A milestone does not include events for which the occurrence is contingent solely on the passage of time or solely on a collaboration partner's performance. A milestone is substantive if the consideration earned from the achievement of the milestone is consistent with our performance required to achieve the milestone or the increase in value to the collaboration resulting from our performance, relates solely to our past performance, and is reasonable relative to all of the other deliverables and payments within the arrangement.

Our license and collaboration agreements with our partners provide for payments to us upon the achievement of development milestones. Given the challenges inherent in developing biologic products, there was substantial uncertainty whether any such milestones would be achieved at the time we entered into these agreements. In addition, we evaluated whether the development milestones met the remaining criteria to be considered substantive. As a result of our analysis, we consider our development milestones to be substantive and, accordingly, we expect to recognize as revenue future payments received from such milestones as we achieve each milestone. The election to adopt the milestone method did not impact our financial position or results of operations as of and for the nine months ended September 30, 2011.

Milestone payments that were contingent upon the achievement of substantive at-risk performance criteria were recognized in full upon achievement of those milestone events in accordance with the terms of the agreement and assuming all other revenue recognition criteria were met. All revenue recognized to date under our collaborative agreements has been nonrefundable.

Our license and collaboration agreements with certain partners also provide for contingent payments to us based solely upon the performance of our partner. For such contingent payments we expect to recognize the payments as revenue upon receipt, provided that collection is reasonably assured and the other revenue recognition criteria have been satisfied.

Revenues from manufacturing services are recognized upon meeting the criteria for substantial performance and acceptance by the customer.

Revenue from royalty payments is contingent on future sales activities by our licensees. As a result, we recognize royalty revenue when reported by our licensees and when collection is reasonably assured.

Revenue from government and private agency grants are recognized as the related research expenses are incurred and to the extent that funding is approved. Additionally, we recognize revenue based on the facilities and administrative cost rate reimbursable per the terms of the grant awards.

Recent Accounting Pronouncements

Accounting Standards Update 2011-05

In June 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2011-05, "Presentation of Comprehensive Income" which was issued to enhance comparability between entities that report under U.S. GAAP and International Financial Reporting Standards ("IFRS"), and to provide a more consistent method of presenting non-owner transactions that affect an entity's equity. ASU 2011-05 eliminates the option to report other comprehensive income and its components in the statement of changes in stockholders' equity and requires an entity to present the total of comprehensive income, the components of net income and the components of other comprehensive income either in a single continuous statement or in two separate but consecutive statements. This pronouncement is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011. Early adoption of the new guidance is permitted and full retrospective application is required. We do not expect that the adoption of this ASU will have any material impact on our results of operations or financial position.

Accounting Standards Update 2011-04

In May 2011, the FASB issued ASU No. 2011-04, "Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and International Financial Reporting Standards ("IFRS")." This pronouncement was issued to provide a consistent definition of fair value and ensure that the fair value measurement and disclosure requirements are similar between U.S. GAAP and IFRS. ASU 2011-04 changes certain fair value measurement principles and enhances the disclosure requirements particularly for Level 3 fair value measurements. This pronouncement is effective for reporting periods beginning on or after December 15, 2011, with early adoption prohibited. The new guidance will require prospective application. We are currently evaluating the impact, if any, that the adoption of this pronouncement may have on our results of operations or financial position.

2. Fair Value Measurements

FASB Accounting Standards Codification ("ASC") 820 defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements. Fair value is defined under ASC 820 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 under ASC 820 must maximize the use of observable inputs and minimize the use of unobservable inputs. The 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 as follows:

- Level 1—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.

The following table represents the fair value hierarchy for our financial assets and liabilities measured at fair value on a recurring basis as of September 30, 2011 (in thousands):

September 30, 2011	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets:				
Money market funds	$13,169	$ 0	$ 0	$13,169
U.S. government agency securities	0	13,466	0	13,466
Corporate debt securities	0	24,231	0	24,231
Total assets	$13,169	$37,697	$ 0	$50,866
Liabilities:				
Long-term contingent liability to Symphony Dynamo Holdings LLC	$ 0	$ 0	$ 877	$ 877
Total liabilities	$ 0	$ 0	$ 877	$ 877
December 31, 2010	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets:				
Money market funds	$18,980	$ 0	$ 0	$18,980
U.S. government agency securities	0	49,039	0	49,039
Corporate debt securities	0	1,764	0	1,764
Total assets	$18,980	$50,803	$ 0	$69,783
Liabilities:				
Long-term contingent consideration liability to Holdings	$ 0	$ 0	$ 843	$ 843
Total liabilities	$ 0	$ 0	$ 843	$ 843

Assets

Money market funds are highly liquid investments and are actively traded. The pricing information for 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.

Marketable securities are primarily comprised of U.S. government sponsored and corporate debt securities which are measured at fair value using Level 2 inputs. We review trading activity and pricing for these investments as of the 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.

When determining if there are any “other-than-temporary” impairments of our investments, we evaluate: (i) whether the investment has been in a continuous realized loss position for over 12 months, (ii) the duration to maturity of our investments, (iii) our intention to hold the investments to maturity and if it is more likely than not that we will be required to sell the investment before recovery of the amortized cost basis, (iv) the credit rating of each investment, and (v) the type of investments made. Through September 30, 2011, we have not recognized any “other-than-temporary” losses on our investments. There were no sales of marketable securities during the quarters ended September 30, 2011 and 2010.

Liabilities

In connection with our acquisition of SDI in December 2009, we are obligated to make future contingent cash payments to the former Symphony Dynamo Holdings LLC (“Holdings”) shareholders related to certain payments received by us, if any, from future partnering agreements pertaining to our hepatitis C and cancer therapy programs. We estimated the fair value of this contingent liability using a discounted cash flow model. The discounted cash flow model was derived from management’s assumptions regarding the timing, amounts and probability of potential upfront and milestone payments for the development and/or commercialization of the hepatitis C program based on transactions for similar stage programs by other companies. These cash flows were discounted at a 14% rate at September 30, 2011.

Changes in the fair value of the contingent liability are recognized in Other income (expense) in the statement of operations in the period of the change. Certain events including, but not limited to, the timing and terms of any strategic partnership agreement

related to the hepatitis C therapy program could have a material impact on the fair value of the contingent liability, and as a result, our results of operations and financial position. Based on our assumptions regarding our beta and risk free interest rate used in the discounted cash flow model, the change in fair value of the contingent liability resulted in other expense of $34 thousand for the nine months ended September 30, 2011.

The following table represents a reconciliation of the change in the fair value measurement of the contingent liability for the nine months ended September 30, 2011 (in thousands):

Contingent Liability to Holdings	Amount
Fair value measurement at December 31, 2010	$ 843
Adjustment to fair value measurement	34
Balance as of September 30, 2011	$ 877

3. Available-for-Sale Securities

The following is a summary of available-for-sale securities included in cash and cash equivalents and marketable securities as of September 30, 2011 and December 31, 2010 (in thousands):

	Amortized Cost	Unrealized Gains	Unrealized Losses	Estimated Fair Value
September 30, 2011				
Certificates of deposit and money market funds	$ 13,993	$ 0	$ 0	$ 13,993
U.S. government agency securities	13,467	0	(1)	13,466
Corporate debt securities	24,236	0	(5)	24,231
Total	$ 51,696	$ 0	$ (6)	$ 51,690
December 31, 2010				
Certificates of deposit and money market funds	$ 19,797	$ 0	$ 0	$ 19,797
U.S. Government agency securities	49,056	0	(17)	49,039
Corporate debt securities	1,764	0	0	1,764
Total	$ 70,617	$ 0	$ (17)	$ 70,600

There were no realized gains or losses from the sale of marketable securities in the quarters ended September 30, 2011 and 2010. As of September 30, 2011 and December 31, 2010, all of our investments have a stated maturity date that is within one year of the balance sheet date. All of our investments are classified as short-term and available-for-sale, as we may not hold our investments until maturity.

4. Intangible Assets

Intangible assets consist primarily of a manufacturing process and customer relationships. The manufacturing process intangible derives from the methods for making proteins in Hansenula yeast, which is a key component in the production of hepatitis B vaccine. The customer relationships derive from Rhein's ability to sell existing, in-process and future products to its existing customers. Purchased intangible assets other than goodwill are amortized on a straight-line basis over their respective useful lives. The following table presents details of the purchased intangible assets, which were fully amortized at September 30, 2011 (in thousands, except years):

	Original Estimated Useful Life (in Years)	Gross	Accumulated Amortization	Net
Manufacturing process	5	$3,670	$ (3,670)	$0
Customer relationships	5	1,230	(1,230)	0
Total	5	$4,900	$ (4,900)	$0

5. Financing Agreements

On September 20, 2010, we entered into a Purchase Agreement with Aspire Capital, which provides that, upon the terms and subject to the conditions and limitations set forth therein, Aspire Capital is committed to purchase up to an aggregate of $30.0 million of shares of our common stock (the "Purchase Shares") over the 25-month term of the Purchase Agreement. Under the Purchase Agreement, we agreed to pay Aspire Capital a commitment fee equal to 4% of $30.0 million in consideration for Aspire Capital's obligation to purchase up to $30.0 million of our common stock. We paid this commitment fee of $1.2 million by the issuance of 600,000 shares of our common stock and this fee was recorded as a cost of raising capital and netted against the gross proceeds from the Purchase Agreement in September 2010. Upon execution of the Purchase Agreement, we sold 1,000,000 shares of common stock to Aspire Capital at a purchase price of $2.00 per share, for an aggregate purchase price of $2.0 million.

Pursuant to the Purchase Agreement, on any business day on which the closing sale price of our common stock exceeds $1.00 over the 25-month term of the Purchase Agreement, we have the right, in our sole discretion, to present Aspire Capital with a purchase notice directing Aspire Capital to purchase up to 150,000 Purchase Shares per business day (defined in the Purchase Agreement as any day on which the principal market is open for trading including any day on which the principal market is open for trading for a period of time less than the customary time). We and Aspire Capital may mutually agree to increase the number of shares that may be sold per business day to as much as an additional 1,000,000 Purchase Shares per business day. The purchase price per Purchase Share is the lower of (i) the lowest sale price for the common stock on the date of sale or (ii) the arithmetic average of the three lowest closing sale prices for the common stock during the 12 consecutive business days ending on the business day immediately preceding the purchase date of those securities. During the nine months ended September 30, 2011, we sold through Aspire Capital an aggregate of 9,800,000 shares of common stock for net proceeds of $24.1 million. In October 2011, we obtained the remaining $2.6 million available to us under the Purchase Agreement by the sale of 1,195,210 shares of common stock.

6. Commitments and Contingencies

We lease our facilities in Berkeley, California (the "Berkeley Lease"), and Düsseldorf, Germany (the "Düsseldorf Lease"), under operating leases that expire in September 2017 and March 2023, respectively. The Berkeley Lease provides for periods of escalating rent. The total cash payments over the life of the lease are divided by the total number of months in the lease period and the average rent is charged to expense each month during the lease period. We entered into sublease agreements under the Düsseldorf Lease for a certain portion of the leased space. The sublease income is offset against our rent expense. Total net rent expense related to our operating leases, is as follows (in thousands):

	Nine Months Ended September 30,	
	2011	2010
Rent expense, net	$1,276	$1,820

Deferred rent was $0.6 million and $0.8 million as of September 30, 2011 and December 31, 2010, respectively.

Future minimum payments under the non-cancelable portion of our operating leases at September 30, 2011, excluding payments from the sublease agreements, are as follows (in thousands):

Year ending December 31,	
2011 (remaining three months)	$ 451
2012	1,815
2013	1,835
2014	1,794
Thereafter	8,312
Total	$14,207

During the fourth quarter of 2004, we established a letter of credit with Silicon Valley Bank as security for our Berkeley Lease in the amount of $0.4 million. The letter of credit remained outstanding as of September 30, 2011 and is collateralized by a certificate of deposit which has been included in restricted cash in the consolidated balance sheets as of September 30, 2011 and December 31, 2010. Under the terms of the Berkeley Lease, if the total amount of our cash, cash equivalents and marketable securities falls below $20.0 million for a period of more than 30 consecutive days during the lease term, the amount of the required security deposit will increase to $1.1 million, until such time as our projected cash and cash equivalents will exceed $20.0 million for the remainder of the lease term, or until our actual cash and cash equivalents remains above $20.0 million for a period of 12 consecutive months.

We established a letter of credit with Deutsche Bank as security for our Düsseldorf Lease in the amount of $0.3 million. The letter of credit remained outstanding as of September 30, 2011 and is collateralized by a certificate of deposit which has been included in restricted cash in the consolidated balance sheets as of September 30, 2011 and December 31, 2010.

As part of the consideration we transferred to Holdings for the acquisition of SDI, we are obligated to make contingent cash payments 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 the cancer and hepatitis C therapies. Using a discounted cash flow model, we estimated the fair value of the contingent liability to be $0.9 million as of September 30, 2011.

In connection with the exercise of our purchase of all of the outstanding equity of SDI on December 30, 2009, we issued a note to Holdings in the principal amount of $15 million. We estimated the fair value of the non-interest bearing note payable to Holdings using a net present value model using a discount rate of 17%. Imputed interest will be recorded as interest expense over the term of the loan. The principal amount of $15 million is due on December 31, 2012 and is payable in cash, our common stock or a combination thereof at our discretion. If we elect to pay the note in shares of our common stock, the number of shares issued will be determined by our stock price at the date of payment.

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 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. We consider these potential obligations to be contingent and have summarized all significant arrangements below.

We rely on research institutions, contract research organizations, clinical investigators and clinical material manufacturers. As of September 30, 2011, under the terms of our agreements, we are obligated to make future payments as services are provided of approximately $15.7 million through 2015. These agreements are terminable by us upon written notice. We are generally only liable for actual effort expended by the organizations at any point in time during the contract through the notice period.

Under the terms of our exclusive license agreements with the Regents of the University of California, as amended, for certain technology and related patent rights and materials, we pay annual license or maintenance fees and will be required to pay milestones and royalties on net sales of products originating from the licensed technologies.

7. Collaborative Research and Development Agreements

GlaxoSmithKline

In December 2008, we entered into a worldwide strategic alliance with GSK to discover, develop, and commercialize toll-like receptor (“TLR”) inhibitors for diseases such as lupus, psoriasis and rheumatoid arthritis. We agreed to conduct research and early clinical development in up to four programs. We are eligible to receive potential contingent development payments which we have determined to be substantive milestones. GSK can exercise its exclusive option to license each program upon achievement of proof-of-concept or earlier upon certain circumstances, and we are eligible to receive contingent option exercise payments. If GSK exercises its option, GSK would carry out further development and commercialization of these products. We are eligible to receive tiered, up to double-digit royalties on sales, if any, and have retained an option to co-develop and co-promote one product under this agreement.

We received an initial payment of $10 million. Revenue from the initial payment is deferred and is being recognized over the expected period of performance which is estimated to be seven years. As of September 30, 2011, $6.0 million of the initial payment remains deferred. For the nine months ended September 30, 2011 and 2010, we recognized revenue of $1.1 million in each period related to the initial payment. During the nine months ended September 30, 2011, we received a milestone payment of $6.0 million for the initiation of a Phase 1 clinical trial which was recognized in full upon receipt.

In October 2011, our worldwide strategic alliance with GSK was expanded to develop a TLR8 inhibitor for the treatment of multiple autoimmune and inflammatory diseases. The addition of the TLR8 program entitled us to receive a $3.0 million milestone payment from GSK.

AstraZeneca

In September 2006, we entered into a three-year research collaboration and license agreement with AstraZeneca for the discovery and development of TLR9 agonist-based therapies for the treatment of asthma and chronic obstructive pulmonary disease. The research term of this agreement was extended through July 2010. The collaboration is using our proprietary second-generation TLR9 agonist immunostimulatory sequences ("ISS"). AstraZeneca has the right to sublicense its rights upon our prior consent.

We received an upfront payment of $10 million. Revenue from the upfront payment had been deferred until we amended certain indemnification obligations in our agreement with AstraZeneca which allowed for the upfront payment to be fully recognized as collaboration revenue in the third quarter of 2010. In 2008, we received a milestone payment of $4.5 million for the nomination of a candidate drug. Revenue from the milestone payment was deferred and recognized ratably over the estimated research period through July 2010. Revenue from the milestone payment was $0.8 million for the nine months ended September 30, 2010. Revenue from the performance of research services was $3.3 million for the nine months ended September 30, 2010 and immaterial for 2011.

In October 2011, we amended our agreement with AstraZeneca to allow us to manage the early clinical development on behalf of the collaboration of AZD 1419, a proprietary second-generation TLR-9 agonist for asthma. Development expenses will be funded by AstraZeneca and we will receive an initial payment of $3.0 million to begin the clinical program. Under the terms of the amended agreement, AstraZeneca will provide us with a total of approximately $20 million in payments to cover the cost of clinical development activities through Phase 2a. If AstraZeneca chooses to advance the program following completion of Phase 2a, we will receive a $20 million milestone payment, and AstraZeneca will retain its rights to develop the candidate therapy and to commercialize the resulting asthma product. Additionally, we are eligible to receive potential future development payments that amount to nearly $100 million, and upon commercialization, we are eligible to receive royalties based on product sales, if any. We have the option to co-promote in the United States products arising from the collaboration, if any.

National Institutes of Health and Other Funding

In September 2008, we were awarded a five-year $17 million contract to develop our ISS technology using TLR9 agonists as vaccine adjuvants. The contract was awarded by the National Institutes of Health's ("NIH") National Institute of Allergy and Infectious Diseases ("NIAID") to develop novel vaccine adjuvant candidates that signal through receptors of the innate immune system. The contract supports adjuvant development for anthrax as well as other disease models. NIAID is funding 100% of the total $17 million cost of our program under Contract No. HHSN272200800038C. For the nine months ended September 30, 2011 and 2010, we recognized revenue of approximately $1.7 million and $2.1 million, respectively, related to this contract.

In August 2010, we were awarded a grant from the NIH's NIAID to take a systems biology approach to study the differences between individuals who do or do not respond to vaccination against the hepatitis B virus ("HBV"). This study will be one of several projects covered in a five-year, $17.6 million grant to the Baylor Institute of Immunology Research in Dallas as part of the Human Immune Phenotyping Centers program. For the nine months ended September 30, 2011 and 2010, we recognized revenue of approximately $0.5 million and $6 thousand, respectively, related to this grant.

In July 2010, we were awarded a $0.6 million grant from the NIH to explore the feasibility of developing a universal vaccine to prevent infection by human papilloma virus ("HPV"). For the nine months ended September 30, 2011 and 2010, we recognized revenue of approximately $0.2 million and $0.1 million, respectively, related to this grant.

In July 2008, we were awarded a two-year $1.8 million grant from the NIH to develop a therapy for systemic lupus erythematosus ("SLE"), an autoimmune disease. For the nine months ended September 30, 2011 and 2010, we recognized revenue of approximately $0.1 million and $0.2 million, respectively, related to this grant.

8. 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 dilutive potential common shares using the treasury-stock method. For purposes of this calculation, common stock subject to repurchase by us, options, restricted stock units and warrants are considered to be potential common shares and are only included in the calculation of diluted net loss per share when their effect is dilutive. Outstanding warrants and equity awards to purchase 37.2 million and 32.9 million shares of common stock as of September 30, 2011 and 2010, respectively, were excluded from the calculation of diluted net loss per share for the three and nine months ended September 30, 2011 and 2010 because the effect would have been anti-dilutive.

9. Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive income or loss. Other comprehensive income or loss includes certain changes in stockholders' equity not included in net loss. Comprehensive loss is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2011	2010	2011	2010
Net loss	$(15,229)	$(4,998)	$(44,330)	$(42,186)
Decrease (increase) in unrealized loss on marketable securities available-for-sale	(8)	(7)	11	3
Decrease (increase) in cumulative translation adjustment	(438)	668	117	(384)
Comprehensive loss	$(15,675)	$(4,337)	$(44,202)	$(42,567)

10. Stockholders' Equity

As of September 30, 2011, we had four share-based compensation plans: the 2004 Stock Incentive Plan, which includes the 2004 Non-Employee Director Option Program (the "2004 Plan"); the 2004 Employee Stock Purchase Plan; 2010 Employment Inducement Stock Awards Plan (the "2010 Inducement Plan"); and the 2011 Equity Incentive Plan (the "2011 Plan"). The 1997 Equity Incentive Plan (the "1997 Plan") expired in the first quarter of 2007. Upon expiration of the 1997 Plan, 273,188 shares previously available for grant expired. In January 2011, our stockholders approved the 2011 Plan. The 2011 Plan provides for the issuance of up to 15,000,000 shares of our common stock to employees and non-employees of the Company and became effective on January 6, 2011. The 2011 Plan is administered by our Board of Directors (the "Board"), or a designated committee of the Board, and awards granted under the 2011 Plan have a term of 10 years unless earlier terminated by the Board. Upon the effectiveness of the 2011 Plan, no additional awards will be granted under either the 2004 Plan or the 2010 Inducement Plan. As of January 6, 2011, all shares currently subject to awards outstanding under the 1997 Plan, 2004 Plan or 2010 Inducement Plan that expire or are forfeited will be included in the reserve for the 2011 Plan to the extent such shares would otherwise return to such plans.

Under our stock-based compensation plans, option awards generally vest over a four-year period contingent upon continuous service and expire 10 years from the date of grant (or earlier upon termination of continuous service). The fair value of each option is estimated on the date of grant using the Black-Scholes option valuation model and the following weighted-average assumptions:

	Employee Stock Options				Employee Stock Purchase Plan	
	Three Months Ended September 30,		Nine Months Ended September 30,		Nine Months Ended September 30,	
	2011	2010	2011	2010	2011	2010
Weighted-average fair value per share	$2.36	$1.58	$2.76	$1.44	$2.19	$1.47
Risk-free interest rate	1.0%	1.1%	1.6%	1.8%	0.3%	0.4%
Expected life (in years)	4.0	4.0	4.0	4.0	1.2	0.9
Volatility	1.6	1.6	1.6	1.6	1.6	1.6
Expected dividends	—	—	—	—	—	—

Expected volatility is based on historical volatility of our stock and comparable peer data. The expected life of options granted is estimated based on historical option exercise and employee termination data. Executive level employees, who hold a majority of the options outstanding, and non-executive level employees were grouped and considered separately for valuation purposes. The risk-free interest rate for periods within the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. The dividend yield is 0% for all years and is based on our history and expectation of dividend payouts.

Compensation expense is based on awards ultimately expected to vest and reflects estimated forfeitures. For equity awards with time-based vesting, the fair value is amortized to expense on a straight-line basis over the vesting periods. For equity awards with performance-based vesting criteria, the fair value begins to be amortized to expense when the achievement of the vesting criteria becomes probable. As of September 30, 2011, the total unrecognized compensation cost related to non-vested equity awards amounted to $9.4 million, which is expected to be recognized over the remaining weighted-average vesting period of two years and less than one year for options and restricted stock units, respectively.

We recognized the following amounts of stock-based compensation expense (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2011	2010	2011	2010
Employee and director stock-based compensation expense	$ 1,286	$ 587	$3,933	$1,520
Other stock-based compensation expense	1	(1)	1	32
Total	$ 1,287	$ 586	$3,934	$1,552

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2011	2010	2011	2010
Research and development expense	$ 528	$ 258	$1,571	$ 347
General and administrative expense	759	328	2,363	1,205
Total	$ 1,287	$ 586	$3,934	$1,552

Activity under the stock option plans was as follows:

	Options and Awards Available for Grant	Number of Options Outstanding	Weighted-Average Price Per Share
Balance at December 31, 2010	646,392	6,868,037	$ 3.05
2011 Plan options authorized	15,000,000	0	0
Options granted	(4,478,400)	4,478,400	$ 3.07
Options exercised	0	(54,000)	$ 1.38
Options cancelled:			
Options forfeited (unvested)	233,450	(233,450)	$ 1.82
Options expired (vested)	18,704	(18,704)	$ 5.36
Awards cancelled (unvested)	0	0	0
Balance at September 30, 2011	11,420,146	11,040,283	$ 3.09

The following table summarizes outstanding options that are net of expected forfeitures (vested and expected to vest) and options exercisable under our stock option plans as of September 30, 2011:

	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding options (vested and expected to vest)	10,066,547	$ 3.13	7.39	$ 1,664,793
Options exercisable	4,120,930	$ 3.98	5.18	$ 736,655

Employee Stock Purchase Plan

As of September 30, 2011, our Employee Stock Purchase Plan (the “Purchase Plan”), has had the following activity to date:

	Number of Shares
Shares reserved and approved for issuance	996,000
Shares acquired	(558,140)
Shares remaining available for future purchases	437,860

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 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 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, 2010.

Overview

Dynavax Technologies Corporation ("Dynavax" or the "Company"), a clinical-stage biopharmaceutical company, discovers and develops novel products to prevent and treat infectious and inflammatory diseases. Our lead product candidate is HEPLISAV™, a Phase 3 investigational adult hepatitis B vaccine designed to provide rapid and superior protection with fewer doses than current licensed vaccines.

Our pipeline of product candidates includes: HEPLISAV; clinical-stage programs for our Universal Flu vaccine, autoimmune program partnered with GlaxoSmithKline ("GSK") and hepatitis C and hepatitis B therapies; and a preclinical program partnered with AstraZeneca AB ("AstraZeneca"). We compete with pharmaceutical companies, biotechnology companies, academic institutions and research organizations, in developing therapies to prevent or treat infectious and inflammatory diseases. Our product candidates are based on the use of immunostimulatory and immunoregulatory sequences.

Recent Developments

HEPLISAV

In September 2011, we presented results for the entire study population of our Phase 3 trial of HEPLISAV ("HBV-16") at the 51st Interscience Conference on Antimicrobial Agents and Chemotherapy ("ICAAC"). HBV-16 was a multi-center, observer-blinded study to determine if the immunogenicity of two doses of HEPLISAV was non-inferior/superior to three doses of Engerix-B® by comparing seroprotection rates ("SPR") at eight weeks post last dose in healthy adults over age 40. The data reported at ICAAC demonstrate HEPLISAV's ability to generate a faster, higher, and longer-lasting response as compared to Engerix-B®.

In October 2011, we presented additional data from HBV-16. The results of a prospective analysis of the diabetic subset population showed the superiority of HEPLISAV compared to Engerix-B at all measured time points. The modified intent to treat ("MITT") analysis of adults with type II diabetes showed that HEPLISAV given as two doses over four weeks protected a significantly greater proportion of subjects in a shorter time and with longer-lasting protection than Engerix-B given as three doses over 24 weeks. The MITT subpopulations included all diabetic subjects that had received at least one dose of any of the four HEPLISAV lots or Engerix-B and had at least one post vaccination immunogenicity result. We also announced immunogenicity data for subpopulations known to be hypo-responsive (males, obese, and smokers) to currently licensed hepatitis B vaccines from HBV-16. The data demonstrate HEPLISAV's enhanced immune response and superiority as measured by peak SPRs for the subpopulations.

In late October 2011, we unblinded our Phase 3 primary endpoint immunogenicity data in subjects with chronic kidney disease ("CKD") and reported that the data achieved statistical significance in demonstrating both the superiority and non-inferiority of HEPLISAV as compared to Engerix-B. A partial safety analysis also showed a similar safety profile for the two vaccines, with the incidence of post-injection reactions and adverse events similar in both the HEPLISAV and Engerix-B treatment groups. This Phase 3 multi-center trial evaluated 507 subjects, 18-75 years of age with CKD, as defined by a modified intent-to-treat analysis, and compared three doses of HEPLISAV given at months 0, 1 and 6 with eight doses of Engerix-B given as double-doses at months 0, 1, 2 and 6.

Also in October 2011, we reported on our regulatory approval submission strategy for HEPLISAV in the U.S. and Europe, stating that the U.S. Food and Drug Administration (the "FDA") concurred with our plan to submit a Biologics License Application ("BLA") for HEPLISAV for persons over 40 years of age. We plan to follow this with a supplemental BLA for licensure of a specific regimen for vaccinating CKD patients against hepatitis B infection at the time the initial application is approved. In addition, we noted that the European Medicines Agency (the "EMA") advised that we could submit the primary endpoint immunogenicity data and associated safety data for the over-40 population as well as the CKD indication as part of our initial Marketing Authorization Application (the "MAA") and that the outstanding CKD data can be submitted in the course of the MAA review. We expect to submit the first BLA in the first quarter of 2012 and plan to submit the MAA for European approval after the submission of our BLA in the U.S.

AstraZeneca

On October 4, 2011, we amended our agreement with AstraZeneca to allow us to manage the early clinical development on behalf of the collaboration of AZD 1419, a proprietary second-generation Toll-like Receptor-9 ("TLR") agonist for asthma. Development expenses will be funded by AstraZeneca and Dynavax will receive an initial payment of $3.0 million to begin the clinical program.

Under the terms of the 2006 research collaboration and license agreement and as now amended, AstraZeneca will provide us with a total of approximately $20 million in payments to cover the cost of clinical development activities through Phase 2a. If AstraZeneca chooses to advance the program following completion of Phase 2a, we will receive a $20 million milestone payment, and AstraZeneca will retain its rights to develop the candidate therapy and to commercialize the resulting asthma product. Additional potential future development payments to us amount to nearly $100 million. We will receive royalties on worldwide sales of approved products and will have the opportunity to co-promote the product in the United States.

GlaxoSmithKline

In October 2011, our worldwide strategic alliance with GSK was expanded to develop a TLR8 inhibitor for the treatment of multiple autoimmune and inflammatory diseases. The addition of the TLR8 program entitled us to receive a $3.0 million milestone payment from GSK.

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 consolidated financial statements and the related disclosures, which have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"). 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, including those related to revenue recognition, research and development activities, stock-based compensation, asset impairment, contingencies, and the valuation of certain liabilities. 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. Actual results may differ from these estimates under different assumptions or conditions. We believe that there have been no significant changes in our critical accounting policies during the nine months ended September 30, 2011 as compared with those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2010 other than the changes to our revenue recognition policy as discussed below.

Revenue Recognition

Our revenues are derived from collaborative and service agreements as well as grants. We enter into license and manufacturing agreements and collaborative research and development arrangements with pharmaceutical and biotechnology partners that may involve multiple deliverables. Our arrangements may include one or more of the following elements: upfront license payments, cost reimbursement for the performance of research and development, milestone payments, other contingent payments, contract manufacturing service fees, royalties and license fees. Each deliverable in the arrangement is evaluated to determine whether it meets the criteria to be accounted for as a separate unit of accounting or whether it should be combined with other deliverables. We recognize revenue when there is persuasive evidence that an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured.

On January 1, 2011, we adopted on a prospective basis Accounting Standards Update ("ASU") 2009-13, "Multiple-Deliverable Revenue Arrangements" ("ASU 2009-13"), which amends the criteria related to identifying separate units of accounting and provides guidance on whether multiple deliverables exist, how an arrangement should be separated and the consideration allocated. The adoption of the standard did not impact our financial position or results of operations as of and for the nine months ended September 30, 2011 as we did not enter into or materially modify any multiple-element arrangements during that period. The adoption of this standard may result in revenue recognition patterns for future agreements that are different from those recognized for our existing multiple-element arrangements.

Non-refundable upfront fees received for license and collaborative agreements entered into prior to January 1, 2011 and other payments under collaboration agreements where we have continuing performance obligations related to the payments are deferred and recognized over our expected performance period. Revenue is recognized on a ratable basis, unless we determine that another methodology is more appropriate, through the date at which our performance obligations are completed. Management makes its best estimate of the period over which we expect to fulfill our performance obligations, which may include clinical development activities. Given the uncertainties of research and development collaborations, significant judgment is required to determine the duration of the performance period. We recognize cost reimbursement revenue under collaborative agreements as the related research and development costs are incurred, as provided for under the terms of these agreements.

On January 1, 2011, we elected to prospectively adopt ASU 2010-17, "Milestone Method of Revenue Recognition" ("ASU 2010-17"). Under the milestone method, contingent consideration received from the achievement of a substantive milestone is recognized in its entirety in the period in which the milestone is achieved. A milestone is defined as an event (i) that can only be achieved based in whole or in part on either the entity's performance or on the occurrence of a specific outcome resulting from the entity's performance, (ii) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved, and (iii) that would result in additional payments being due to the entity. A milestone does not include events for which the occurrence is contingent solely on the passage of time or solely on a collaboration partner's performance. A milestone is substantive if the consideration earned from the achievement of the milestone is consistent with our performance required to achieve the milestone or the increase in value to the collaboration resulting from our performance, relates solely to our past performance, and is reasonable relative to all of the other deliverables and payments within the arrangement.

Our license and collaboration agreements with our partners provide for payments to us upon the achievement of development milestones. Given the challenges inherent in developing biologic products, there was substantial uncertainty whether any such milestones would be achieved at the time we entered into these agreements. In addition, we evaluated whether the development milestones met the remaining criteria to be considered substantive. As a result of our analysis, we consider our development milestones to be substantive and, accordingly, we expect to recognize as revenue future payments received from such milestones as we achieve each milestone. The election to adopt the milestone method did not impact our financial position or results of operations as of and for the nine months ended September 30, 2011.

Milestone payments that were contingent upon the achievement of substantive at-risk performance criteria were recognized in full upon achievement of those milestone events in accordance with the terms of the agreement and assuming all other revenue recognition criteria were met. All revenue recognized to date under our collaborative agreements has been nonrefundable.

Our license and collaboration agreements with certain partners also provide for contingent payments to us based solely upon the performance of our partner. For such contingent payments we expect to recognize the payments as revenue upon receipt, provided that collection is reasonably assured and the other revenue recognition criteria have been satisfied.

Revenues from manufacturing services are recognized upon meeting the criteria for substantial performance and acceptance by the customer.

Revenue from royalty payments is contingent on future sales activities by our licensees. As a result, we recognize royalty revenue when reported by our licensees and when collection is reasonably assured.

Revenue from government and private agency grants are recognized as the related research expenses are incurred and to the extent that funding is approved. Additionally, we recognize revenue based on the facilities and administrative cost rate reimbursable per the terms of the grant awards.

Results of Operations

Revenues

Revenues consist of amounts earned from collaborations, grants, and services and license fees. Collaboration revenue includes amounts recognized under our collaboration agreements. Grant revenue includes amounts earned under government and private agency grants. Service and license fees include revenues related to research and development and contract manufacturing services, license fees and royalty payments.

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

	Three Months Ended September 30,		Increase (Decrease) from 2010 to 2011		Nine Months Ended September 30,		Increase (Decrease) from 2010 to 2011	
	2011	2010	$	%	2011	2010	$	%
Revenues:								
Collaboration revenue	$ 369	$10,402	$(10,033)	(96%)	$ 7,098	$19,164	$(12,066)	(63%)
Grant revenue	658	1,218	(560)	(46%)	2,437	2,697	(260)	(10%)
Service and license revenue	147	29	118	407%	652	323	329	102%
Total revenues	$1,174	$11,649	$(10,475)	(90%)	$10,187	$22,184	$(11,997)	(54%)

Total revenues for the three and nine months ended September 30, 2011 decreased as compared to the same periods in 2010. The decrease was primarily due to the reduction in collaboration revenue from our asthma program and from our terminated collaboration with Merck. Collaboration revenue in the nine months ended September 30, 2010 included $4.0 million from Merck in satisfaction of its obligations for the wind down period following termination, $4.0 million from AstraZeneca for research services that completed in July 2010, and $10 million from the AstraZeneca upfront payment which had been deferred until we amended certain indemnification obligations in our agreement which allowed for the upfront payment to be fully recognized in the third quarter of 2010. The decrease was partially offset by a milestone payment of $6.0 million from GSK for the initiation of a Phase 1 clinical trial recognized in the second quarter of 2011.

Grant revenue for the three and nine months ended September 30, 2011 decreased due to expiration of the NIH grants for the development of a therapy for systemic lupus erythematosus ("SLE") and preclinical development of oligonucleotide-based TLR inhibitors for use in inflammatory skin diseases.

Service and license revenue for the three months ended September 30, 2011 increased as compared to the same period in 2010 as a result of research and development service revenue for customers of Rhein Biotech GmbH ("Rhein" or "Dynavax Europe"). Service and license revenue for the nine months ended September 30, 2011 increased as compared to 2010 as a result of the timing of royalties received by Rhein and increased research and development service revenue for customers of Rhein.

Research and Development Expense

Research and development expense consists 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 relate to our preclinical experiments and clinical trials, regulatory filings, manufacturing our product candidates and cost of sales relating to service and license revenue.

The following is a summary of our research and development expense (in thousands, except for percentages):

	Three Months Ended September 30,		Increase (Decrease) from 2010 to 2011		Nine Months Ended September 30,		Increase (Decrease) from 2010 to 2011	
	2011	2010	$	%	2011	2010	$	%
Research and development:								
Compensation and related personnel costs	$ 4,862	$ 3,379	$ 1,483	44%	$14,063	$10,621	$ 3,442	32%
Outside services	4,959	8,824	(3,865)	(44%)	19,792	24,818	(5,026)	(20%)
Facility costs	1,429	1,743	(314)	(18%)	4,281	4,943	(662)	(13%)
Non-cash stock-based compensation	527	258	269	104%	1,570	347	1,223	352%
Total research and development	$11,777	$14,204	$ (2,427)	(17%)	$39,706	$40,729	$ (1,023)	(3%)

Research and development expense for the three and nine months ended September 30, 2011 decreased from the same periods in 2010 primarily due to a decline in outside services following the completion of certain clinical development activities for HEPLISAV. The decrease in research and development expense was partially offset by increases in compensation from additional headcount and non-cash stock-based compensation expense incurred for option grants with performance-based vesting criteria associated with the HEPLISAV program.

General and Administrative Expense

General and administrative expense consists primarily of compensation and related personnel costs; outside services such as accounting, consulting, business development, investor relations and insurance services; 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 general and administrative expense (in thousands, except for percentages):

	Three Months Ended September 30,		Increase (Decrease) from 2010 to 2011		Nine Months Ended September 30,		Increase (Decrease) from 2010 to 2011	
	2011	2010	$	%	2011	2010	$	%
General and administrative:								
Compensation and related personnel costs	$1,898	$1,619	$ 279	17%	$ 5,516	$ 4,750	$ 766	16%
Outside services	1,051	1,082	(31)	(3%)	3,104	3,068	36	1%
Legal costs	344	649	(305)	(47%)	1,507	2,958	(1,451)	(49%)
Facility costs	190	269	(79)	(29%)	589	724	(135)	(19%)
Non-cash stock-based compensation	734	332	402	121%	2,309	1,194	1,115	93%
Total general and administrative	$4,217	$3,951	$ 266	7%	$13,025	$12,694	$ 331	3%

General and administrative expense for the three and nine months ended September 30, 2011 was relatively consistent with 2010. Compensation costs and non-cash stock-based compensation increased due to growth in the number of administrative employees to support the overall organization and expense incurred for option grants with performance-based vesting criteria. These increases were partially offset by reductions in legal costs related to patent activities and facility costs.

Amortization of Intangible Assets

Intangible assets consist of the manufacturing process and customer relationships resulting from our April 2006 acquisition of Rhein and were being amortized over five years from the date of acquisition. Amortization of intangible assets was $0.3 million and $0.7 million for the nine months ended September 30, 2011 and 2010, respectively. The intangible assets were fully amortized at September 30, 2011.

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

Interest income is reported net of amortization of premiums and discounts on marketable securities and realized gains and losses on investments. Interest expense relates to the note payable issued to Symphony Dynamo Holdings LLC ("Holdings") in connection with our acquisition of SDI. Other income (expense) includes gains and losses on foreign currency translation, gains and losses on disposals of property and equipment, and the change in fair value of financial assets and liabilities such as the warrants and contingent consideration liabilities assumed in connection with the acquisition of Symphony Dynamo Inc., ("SDI") on December 30, 2009. The following is a summary of our interest income and expense and other income and expense (in thousands, except for percentages):

	Three Months Ended September 30,		Increase (Decrease) from 2010 to 2011		Nine Months Ended September 30,		Increase (Decrease) from 2010 to 2011	
	2011	2010	$	%	2011	2010	$	%
Interest Income	$ 18	$ 12	$ 6	50%	$ 74	$ 53	$ 21	40%
Interest Expense	(485)	(399)	86	22%	(1,462)	(1,229)	233	19%
Other Income (Expense)	58	2,140	(2,082)	(97%)	(99)	(9,036)	(8,937)	(99%)

Interest expense for the three and nine months ended September 30, 2011 increased over the same periods in 2010 due to interest accreted on the note payable to Holdings.

Other income (expense) for the three and nine months ended September 30, 2011 was comprised of the change in fair value of the contingent liability to Holdings and foreign currency translation adjustments.

Other income (expense) for the three and nine months ended September 30, 2010 primarily included the fair value of the shares and incremental fair value of the warrants provided to Symphony Capital Partners, L.P. and certain of its affiliates (together, "Symphony") in April 2010, as measured upon issuance and remeasured at June 30, 2010, which resulted in non-operating expense of $11.1 million, offset by a gain of $2.1 million for the change in fair value of the long-term contingent liability in the three months ended September 30, 2010. Other income (expense) for each period also included the change in fair value of the contingent liability to Holdings and foreign currency translation adjustments.

Recent Accounting Pronouncements

Accounting Standards Update 2011-05

In June 2011, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2011-05, "Presentation of Comprehensive Income" which was issued to enhance comparability between entities that report under U.S. GAAP and International Financial Reporting Standards ("IFRS"), and to provide a more consistent method of presenting non-owner transactions that affect an entity's equity. ASU 2011-05 eliminates the option to report other comprehensive income and its components in the statement of changes in stockholders' equity and requires an entity to present the total of comprehensive income, the components of net income and the components of other comprehensive income either in a single continuous statement or in two separate but consecutive statements. This pronouncement is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011. Early adoption of the new guidance is permitted and full retrospective application is required. We do not expect that the adoption of this ASU will have any material impact on our results of operations or financial position.

Accounting Standards Update 2011-04

In May 2011, the FASB issued ASU No. 2011-04, "Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and International Financial Reporting Standards ("IFRS")." This pronouncement was issued to provide a consistent definition of fair value and ensure that the fair value measurement and disclosure requirements are similar between U.S. GAAP and IFRS. ASU 2011-04 changes certain fair value measurement principles and enhances the disclosure requirements particularly for Level 3 fair value measurements. This pronouncement is effective for reporting periods beginning on or after December 15, 2011, with early adoption prohibited. The new guidance will require prospective application. We are currently evaluating the impact, if any, that the adoption of this pronouncement may have on our results of operations or financial position.

Liquidity and Capital Resources

As of September 30, 2011, we had $53.2 million in cash, cash equivalents and marketable securities. Our funds are currently invested in short-term money market funds, U.S. government agency securities and corporate obligations.

Cash used in operating activities was $41.8 million during the nine months ended September 30, 2011 compared to $33.5 million for the same period in 2010. The increase in cash usage compared to the prior year was due primarily to the net loss and payments of liabilities.

Cash provided by investing activities was $14.1 million during the nine months ended September 30, 2011 compared to cash used in investing activities of $19.3 million for the same period in 2010. The increase was attributed to the net proceeds from maturities of marketable securities.

Cash provided by financing activities was $24.4 million during the nine months ended September 30, 2011 compared to cash provided of $44.3 million for the same period in 2010. During the nine months ended September 30, 2011, we sold 9,800,000 shares of common stock under our Purchase Agreement with Aspire Capital for net proceeds of $24.1 million. In October 2011, we obtained the remaining $2.6 million available to us under the Purchase Agreement by the sale of 1,195,210 shares of common stock. During the first half of 2010, we completed a public offering which resulted in net proceeds of $41.1 million.

We expect to continue to spend substantial funds in connection with development and manufacturing of our product candidates, particularly HEPLISAV; various human clinical trials for our product candidates; and protection of our intellectual property. In order to continue development of our product candidates, particularly HEPLISAV, we will need to raise additional funds. This may occur through future public or private financings and/or strategic alliance and licensing arrangements. Sufficient funding may not be available on acceptable terms or at all. Additionally equity financings, if completed, could result in significant dilution or otherwise adversely affect the rights of existing stockholders. If adequate funds are not available in the future, we would need to delay, reduce the scope of, or put on hold the HEPLISAV program or other development programs while we seek strategic alternatives.

We currently estimate that we will have sufficient cash resources to meet our cash needs through the next 12 months based on cash and cash equivalents and marketable securities on hand at September 30, 2011 anticipated revenues and funding from existing agreements. We note that our independent registered public accounting firm included in their audit opinion on our consolidated financial statements for the fiscal year ended December 31, 2010, a statement with respect to substantial doubt regarding our ability to continue as a going concern. Our consolidated financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

Contractual Obligations

The following summarizes our significant contractual obligations as of September 30, 2011 and the effect those obligations are expected to have on our liquidity and cash flows in future periods (in thousands):

Contractual Obligations:	Total	Less Than 1 Year	1-3 Years	4-5 Years	More Than 5 years
Future minimum payments under our operating leases, excluding payments from sublease agreements	$14,207	$ 451	$ 5,444	$ 3,698	$ 4,614
Long-term note payable to Symphony Dynamo Holdings	15,000	—	15,000	—	—
Total	$29,207	$ 451	$20,444	$ 3,698	$ 4,614

We lease our facilities in Berkeley, California (the "Berkeley Lease") and Düsseldorf, Germany (the "Düsseldorf Lease") under operating leases that expire in September 2017 and March 2023, respectively.

During the fourth quarter of 2004, we established a letter of credit with Silicon Valley Bank as security for our Berkeley Lease in the amount of $0.4 million. The letter of credit remained outstanding as of September 30, 2011 and is collateralized by a certificate of deposit which has been included in restricted cash in the consolidated balance sheets as of September 30, 2011 and December 31, 2010. Under the terms of the Berkeley Lease, if the total amount of our cash, cash equivalents and marketable securities falls below $20.0 million for a period of more than 30 consecutive days during the lease term, the amount of the required security deposit will increase to $1.1 million, until such time as our projected cash and cash equivalents will exceed $20.0 million for the remainder of the lease term, or until our actual cash and cash equivalents remains above $20.0 million for a period of 12 consecutive months.

We established a letter of credit with Deutsche Bank as security for our Düsseldorf Lease in the amount of $0.3 million. The letter of credit remained outstanding as of September 30, 2011 and is collateralized by a certificate of deposit which has been included in restricted cash in the consolidated balance sheet as of September 30, 2011 and December 31, 2010.

In connection with the exercise of our purchase of all of the outstanding equity of SDI on December 30, 2009, we issued a note to Holdings in the principal amount of $15 million. We estimated the fair value of the non-interest bearing note payable to Holdings using a net present value model using a discount rate of 17%. Imputed interest will be recorded as interest expense over the term of the loan. The principal amount of $15 million is due on December 31, 2012 and is payable in cash, our common stock or a combination thereof at our discretion. If we elect to pay the note in shares of our common stock, the number of shares issued will be determined by our stock price at the date of payment.

As part of the consideration transferred from Dynavax to Holdings for the acquisition of SDI, we are obligated to make contingent cash payments 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 the cancer and hepatitis C therapies. Using a discounted cash flow model, we estimated the fair value of the contingent liability to be $0.9 million as of September 30, 2011.

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 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. We consider these potential obligations to be contingent and have summarized all significant arrangements below.

We rely on research institutions, contract research organizations, clinical investigators and clinical material manufacturers. As of September 30, 2011, under the terms of our agreements, we are obligated to make future payments as services are provided of approximately $15.7 million through 2015. These agreements are terminable by us upon written notice. We are generally only liable for actual effort expended by the organizations at any point in time during the contract through the notice period.

Under the terms of our exclusive license agreements with the Regents of the University of California, as amended, for certain technology and related patent rights and materials, we pay annual license or maintenance fees and will be required to pay milestones and royalties on net sales of products originating from the licensed technologies, if any.

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

The primary objective of our investment activities is to preserve principal while at the same time to maximize the income we receive from our investments without significantly increasing risk. Some of the securities that we invest in may have market risk. This means that a change in prevailing interest rates may cause the principal amount of the investment to fluctuate. To minimize this risk, we maintain our portfolio of cash equivalents and investments in a variety of securities, including money market funds, U.S. government agency securities and corporate obligations, some of which are government-secured. We do not invest in auction rate securities or securities collateralized by home mortgages, mortgage bank debt or home equity loans. Because of the short-term maturities of our cash equivalents and marketable securities, we do not believe that an increase in market rates would have any significant negative impact on the realized value of our investments.

Interest Rate Risk. We do not use derivative financial instruments in our investment portfolio. Due to the short duration and conservative nature of our cash equivalents and marketable securities, we do not expect any material loss with respect to our investment portfolio.

Foreign Currency Risk. We have certain investments outside the U.S. for the operations of Dynavax Europe and have some exposure to foreign exchange rate fluctuations. The cumulative translation adjustment reported in the consolidated balance sheet as of

September 30, 2011 was a negative $0.6 million primarily related to translation of Dynavax Europe assets, liabilities and operating results from Euros to U.S. dollars. To date, the effect of our exposure to these exchange rate fluctuations has not been material, and we do not expect it to become material in the foreseeable future. We do not hedge our foreign currency exposures and have not used derivative financial instruments for speculation or trading purposes.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of disclosure controls and procedures

The Company's management, under the supervision and with the participation of the Company's Chief Executive Officer ("CEO") and Vice President ("VP"), Finance, our principal financial officer, performed an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the CEO and VP, Finance concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of period covered by this report are effective.

(b) Changes in internal controls

There has been no change in our internal control over financial reporting during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time in the ordinary course of business, we receive claims or allegations regarding various matters, including employment, vendor and other similar situations in the conduct of our operations. We do not believe any of the current claims or allegations are material to our current business or operations.

ITEM 1A. RISK FACTORS

Various statements in this Quarterly Report on Form 10-Q are forward-looking statements concerning our ability to obtain regulatory approval for and commercialize our future products, timing of development activities, 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.

Risks Related to our Finances and Capital Requirements

We have incurred substantial losses since inception and do not have any commercial products that generate revenue.

We have experienced significant net losses in each year since our inception. Our accumulated deficit was $361.3 million as of September 30, 2011. To date, our revenue has resulted from collaboration agreements, services and license fees from our customers and customers of Rhein Biotech GmbH ("Rhein" or "Dynavax Europe"), and government and private agency grants. The grants are subject to annual review based on the achievement of milestones and other factors. We anticipate that we will incur substantial additional net losses in future years as a result of our continuing investment in research and development activities.

We do not have any products that generate revenue. There can be no assurance whether HEPLISAV can be further developed, financed or commercialized in a timely manner without significant additional studies or patient data or significant expense; whether current development efforts will be sufficient to support approval of HEPLISAV; or if approved, whether the market for HEPLISAV will be sufficient for us to reach profitability.

Clinical trials for certain of our product candidates other than HEPLISAV are ongoing, and our other product candidates may never be commercialized or achieve profitability. Our ability to generate revenue depends upon demonstrating in clinical trials that our product candidates are safe and effective, obtaining regulatory approvals for our product candidates and entering into and maintaining successful collaborative relationships.

We expect to continue to incur substantial operating losses as we complete our Phase 3 clinical trials of HEPLISAV in support of regulatory filings, add infrastructure and operations to support commercialization of HEPLISAV, and potentially begin new research and development programs. Our ability to generate revenue depends heavily on our ability to successfully develop and secure regulatory approval for, and commercially launch, our product candidate, HEPLISAV. If due to lengthy and complicated development, clinical and regulatory requirements or any other reason, we are unable to commercialize HEPLISAV, we may never be able to commercialize any future product candidates.

If we are unable to generate significant revenues or achieve profitability, we may be required to reduce or discontinue our current and planned operations, enter into a transaction that constitutes a change in control of the company or raise additional capital on less than favorable terms. Additionally, if we continue to incur substantial additional net losses without additional equity funding, we will continue to deplete our stockholders' equity, and if such equity balance falls below the listing requirement threshold of $2.5 million for the NASDAQ Capital Market, we may be delisted.

We require substantial additional capital to continue development of our product candidates, in particular for our most advanced candidate, HEPLISAV. We cannot be certain that funds will be available and, if they are not available, we may not be able to continue as a going concern which may result in actions that could adversely impact our stockholders.

In order to continue development of our product candidates, particularly HEPLISAV, we still need to raise significant additional funds. This may occur through future public or private financings and/or strategic alliance and licensing arrangements. We expect to continue to spend substantial funds in connection with:

- development, manufacturing and commercialization of our product candidates, particularly HEPLISAV;
- various human clinical trials for our product candidates; and
- protection of our intellectual property.

We currently estimate that we have will sufficient resources to meet our anticipated cash needs through the next 12 months based on cash and cash equivalents and marketable securities on hand at September 30, 2011 and anticipated revenues and funding from existing agreements.

Sufficient additional financing through future public or private financings, strategic alliance and licensing arrangements or other financing sources may not be available on acceptable terms or at all. Additional equity financings, if completed, could result in significant dilution or otherwise adversely affect the rights of existing stockholders. If adequate funds are not available in the future, we would need to delay, reduce the scope of, or put on hold the HEPLISAV program or other development programs while we seek strategic alternatives.

Our independent registered public accountants have indicated that our financial condition raises substantial doubt as to our ability to continue as a going concern.

Our independent registered public accounting firm included in their audit opinion on our consolidated financial statements for the year ended December 31, 2010 a statement with respect to substantial doubt regarding our ability to continue as a going concern. Our consolidated financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. If we became unable to continue as a going concern, we may have to liquidate our assets and the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our consolidated financial statements.

Risks Related to our Business

The success of our product candidates depends on timely achievement of successful clinical results and adequate evidence of a product manufactured by a well-controlled process that is safe and effective for its intended use and regulatory approval. The FDA or foreign regulatory agencies may determine our clinical trials or other data regarding safety, efficacy or consistency of manufacture are insufficient for regulatory approval. Failure to obtain regulatory approvals could require us to discontinue operations.

None of our product candidates has been approved for sale by any regulatory agency. Any product candidate we develop is subject to extensive regulation by federal, state and local governmental authorities in the United States, including the U.S. Food and Drug Administration (“FDA”) and by foreign regulatory agencies. Our success is primarily dependent on our ability to timely enroll patients in clinical trials, achieve successful clinical results, provide adequate evidence of a product manufactured by a well-controlled process that is safe and effective for its intended use and obtain regulatory approvals for our most advanced product candidates. Approval processes in the United States and in other countries are uncertain, can take many years and require the expenditure of substantial resources.

We will need to demonstrate in clinical trials that a product candidate is safe and effective before we can obtain the necessary approvals from the FDA and foreign regulatory agencies. If we identify any safety issues associated with our product candidates, we may be restricted from initiating further trials for those products. Moreover, we may not see sufficient signs of efficacy in those studies. For our lead product, HEPLISAV, we must prepare and submit a Biologics License Application (a “BLA”) to the FDA and corresponding applications to foreign regulatory agencies that must be approved by those agencies before we may sell the product. Obtaining approval of a BLA by the FDA and corresponding foreign applications is highly uncertain and we may fail to obtain approval even if we are able to submit a BLA for HEPLISAV that is acceptable for review. The BLA 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 HEPLISAV for many reasons, including: whether the data arising from our clinical trials, including the Phase 3 results, or the development program is satisfactory to the FDA; disagreement with the number, design, size, conduct or implementation of our clinical trials or a conclusion that the data fails to meet statistical or clinical significance; acceptability of data generated at our clinical trial sites that are monitored by third party clinical research organizations; the results of a FDA or other advisory committee that may recommend against approval of our BLA or may recommend that the FDA or other agencies require, as a condition or approval, additional preclinical studies or clinical trials; and deficiencies in our manufacturing processes or facilities or those of our third party contract manufacturers and suppliers, if any. 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 are insufficient for regulatory approval.

Failure to timely and successfully complete clinical trials, show that our products are safe and effective and timely file and receive approval for our BLA would have a material adverse effect on our business and results of operations. Even if approved, the labeling approved by the relevant regulatory authority for a product may restrict to whom we and our partners may market the product or in the manner in which our product may be administered and sold, which could significantly limit the commercial opportunity for such product.

Prior to granting product approval, the FDA must determine that our or our third party contractor’s manufacturing facilities meet current good manufacturing practice (“GMP”) requirements before we can use them in the commercial manufacture of our products. We and all of our contract manufacturers are required to comply with the applicable current GMP regulations. Manufacturers of biologics must also comply with FDA’s general biological product standards. Failure to comply with the statutory and regulatory requirements subjects the manufacturer to possible legal or regulatory action, such as delay of approval, suspension of manufacturing, seizure of product or voluntary recall of a product. In addition, GMP regulations require quality control and quality assurance as well as the corresponding maintenance of records and documentation sufficient to ensure the quality of the approved product.

HEPLISAV and most of our earlier stage programs rely on immunostimulatory sequences (“ISS”)-based technology. Serious adverse safety data relating to either 1018 ISS or other ISS-based technology may require us to reduce the scope of or discontinue our operations.

HEPLISAV is based on our 1018 ISS compound, and most of our research and development programs use ISS-based technology. If any of our product candidates in clinical trials produce serious adverse safety data, we may be required to delay, discontinue or modify our clinical trials or our clinical trial strategy. For example, from March 2008 until September 2009, the two investigational new drug (“IND”) applications for HEPLISAV were placed on clinical hold by the FDA following a serious adverse event that occurred in one of our clinical trials. In September 2009, the FDA removed the clinical hold on the IND application for individuals with chronic kidney disease but the other IND application for HEPLISAV remains on clinical hold. In addition, most of our clinical product candidates contain ISS, and if a common safety risk across therapeutic areas were identified, it may hinder our ability to enter into potential collaborations and if adverse safety data are found to apply to our ISS-based technology as a whole, we may be required to significantly reduce or discontinue our operations.

We have no commercialization experience, and the time and resources to develop sales, marketing and distribution capabilities for HEPLISAV is significant. If we fail to achieve and sustain commercial success for HEPLISAV, our business would be harmed.

Although certain of our employees have commercialization experience, as a company we currently have no sales, marketing or distribution capabilities. HEPLISAV is currently expected to generate a substantial portion of our revenue. In order to commercialize HEPLISAV, we must either develop sales, marketing and distribution capabilities, or make arrangements with third parties to perform these services, which will require resources and time. If we decide to market HEPLISAV directly, we must commit significant resources to develop a marketing and sales force with technical expertise and with supporting distribution capabilities.

In October 2011, the Centers for Disease Control and Prevention ("CDC") Advisory Committee on Immunization Practices (ACIP) voted to recommend that hepatitis B vaccine should be administered to unvaccinated adults with diabetes who are less than 60 years of age. This change significantly expands the potential number of persons for whom vaccination is recommended in the U.S. and we believe could significantly expand the revenue potential for HEPLISAV. In order to successfully market, sell and distribute HEPLISAV to patients with diabetes, we will need to establish a sales and marketing infrastructure and/or establish and maintain distribution arrangements. We may not be able to enter into these arrangements on acceptable terms. Moreover, our pricing and reimbursement strategies with respect to our initial approval plans for HEPLISAV may significantly impact our ability to achieve commercial success in this potential patient population.

Factors that may inhibit our efforts to commercialize HEPLISAV directly or indirectly with a partner include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to or persuade adequate numbers of physicians to prescribe our products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines;
- our inability to expand and sustain qualified manufacturing capacity to meet demand, in particular if there is significant increase in demand due to the recommendation to vaccinate persons with diabetes if we should obtain approval to market to those patients;
- our inability to determine appropriate pricing and reimbursement strategies for HEPLISAV in the potential patient populations that may use HEPLISAV, particularly in the diabetes market; and
- unanticipated delays, costs and expenses associated with manufacturing and commercialization of our products, including costs of creating and sustaining an independent sales and marketing organization in various territories.

If we, or our partner, if any, are not successful in setting our marketing, pricing and reimbursement strategy, recruiting sales and marketing personnel or in timely building a sales and marketing infrastructure, we will have difficulty commercializing HEPLISAV, which would adversely affect our business and financial condition. To the extent we rely on other pharmaceutical or biotechnology companies with established sales, marketing and distribution systems to market HEPLISAV, we will need to establish and maintain partnership arrangements, and we may not be able to enter into these arrangements on acceptable terms. 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 would likely be lower than if we marketed and sold our products independently.

Our clinical trials may be extended, suspended, delayed or terminated at any time. Even short delays in the commencement and progress of our trials may lead to substantial delays in the regulatory approval process for our product candidates, which will impair our ability to generate revenues.

We may extend, suspend or terminate clinical trials at any time for various reasons, including regulatory actions by the FDA or foreign regulatory agencies, actions by institutional review boards, failure to comply with good clinical practice requirements, concerns regarding health risks to test subjects, failure to enroll patients in a timely manner, or delays due to manufacturing an inadequate supply of the product candidate. Even a short delay in a trial for any product candidate could require us to delay commencement or continuation of a trial until the target population is available for testing, which could result in a delay of a year or more. The FDA may require larger or additional clinical trials for our HEPLISAV product candidate than we currently expect before granting regulatory approval, if at all.

Our registration and commercial timelines depend on successful completion of current and planned clinical trials, successful results from such trials, and further discussions with the FDA and corresponding foreign regulatory agencies. Any extension, suspension, modification, termination or unanticipated delays of our clinical trials 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.

We rely on contract research organizations to conduct 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 third parties to conduct 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 conduct regular reviews of the data, we are dependent on the processes and quality control efforts of our third party contractors to ensure that detailed, quality records are maintained to support the results of the clinical trials which 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 products and could have a material adverse effect on our business and operations.

We rely on our facility in Düsseldorf, Germany and third parties to supply materials necessary to manufacture our clinical product candidates. We have limited experience in manufacturing sufficient quantities of ISS for our commercial products and clinical trials and rely on limited third parties to produce the ISS we need for our clinical trials and will require for commercialization. Additionally, we have limited experience in manufacturing our product candidates in commercial quantities.

We rely on a number of third parties for the multiple steps involved in the manufacturing process of our product candidates, including ISS, the production of certain antigens, the combination of the antigens and ISS and the fill and finish. Termination or interruption of these relationships may occur due to circumstances that are outside of our control, resulting in higher cost or delays in our product development efforts.

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

We currently utilize our facility in Düsseldorf to manufacture the hepatitis B surface antigen for HEPLISAV. The commercial manufacturing of vaccines and other biological products is a time-consuming and complex process, which must be performed in compliance with current GMP regulations. We may not be able to comply with these 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 delay the development or commercialization of our product candidates and could result in significant expense. Moreover, if our HEPLISAV clinical trials are sufficient for approval and depending on the level of market acceptance of the product, we likely would not have the capacity in our existing facility to meet all of our commercial supply needs in the future. For example, the recent ACIP recommendation that hepatitis B vaccine should be administered to unvaccinated adults with diabetes who are less than 60 years of age could significantly increase the market demand for HEPLISAV. Our current manufacturing capacity could supply up to approximately 2 million doses of HEPLISAV annually, which may not be sufficient to meet demand. Our ability to expand manufacturing capacity by improving utilization in our existing facility, improve upon our current production yields or by using a new facility will take time to implement and could result in substantial cost. In the event that demand exceeds our current capacity plans, we may experience a shortage in our ability to timely supply HEPLISAV and our clinical candidates, which could have a material adverse effect on the success of HEPLISAV and our other product candidates.

If HEPLISAV cannot be successfully developed or is not commercially viable, we will have to use the Düsseldorf facility for alternative manufacturing or research activities that may not fully utilize the facility's capacity, resulting in continued operating costs that may not be offset by corresponding revenues.

We may also consider other alternatives for the Düsseldorf facility, including its sale or closure, which would result in certain costs of disposal or discontinuation of operations. Discontinuation of operations in Düsseldorf would be complex, expensive, time-consuming and difficult to execute without significant additional costs due to, among other things, international legal and tax considerations related to those operations. As a result, we may not realize cost savings associated with a potential closure of the Düsseldorf operations, if at all.

If we receive regulatory approval for our product candidates, we will be subject to ongoing FDA and foreign regulatory obligations and continued regulatory review.

We and our third party suppliers are required to comply with applicable current GMP regulations and other international regulatory requirements. The regulations require that our product candidates be manufactured and our records maintained in a prescribed manner with respect to manufacturing, testing and quality control/quality assurance activities. 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, these third parties and our 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 these inspections, the FDA determines that the equipment, facilities, laboratories or processes do not comply with applicable FDA regulations and conditions of product approval, the FDA 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 may be unable to ship our approved product for commercial supply or to supply our products in development for clinical trials. Significant delays can occur if the qualification of a new supplier is required.

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 commercialization.

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.

We may develop, seek regulatory approval for and market our product candidates outside the United States, 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 introduce certain of our product candidates, including HEPLISAV, in various markets outside the United States. Developing, seeking regulatory approval for and marketing our product candidates outside the United States could impose substantial burdens on our resources and divert 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.

To date, we have not filed for marketing approval for any of our product candidates outside the United States. We may not obtain foreign regulatory approvals on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory agencies in other foreign countries. However, a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in other jurisdictions, including approval by the FDA. 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 or marketing claims, we may be unable to generate significant revenues, if any.

Even if we obtain regulatory approval for our product candidates and are able to commercialize them, our products may not gain market acceptance among physicians, patients, health care payors and the medical community.

The degree of market acceptance of any of our 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.

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. For example, in connection with the removal of the clinical hold on HEPLISAV in September 2009 and related discussions with the FDA, it is expected that further development of HEPLISAV in the United States initially will be limited to individuals who are less responsive to current licensed vaccines, including adults over 40 years of age and individuals with chronic kidney disease. 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.

We face uncertainty related to coverage, pricing and reimbursement and the practices of third party payors, which may make it difficult or impossible to sell our 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 or the availability of appropriate reimbursement from third party payors, in particular for HEPLISAV where existing products are approved for our target indications. Existing laws affecting the pricing and coverage of pharmaceuticals and other medical products by government programs and other third party payors may change before any of our product candidates are approved for marketing. In addition, 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 products to compete effectively with existing or 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 particularly uncertain. We will have to charge a price for our products that is sufficiently high to enable us to recover our considerable investment in product development. Adequate third-party reimbursement may not be available to enable us to maintain price levels sufficient to achieve profitability and could harm our future prospects and reduce our stock price.

We are unable to predict what impact the Health Care and Education Reconciliation Act of 2010 or other reform legislation will have on our business or future prospects. The uncertainty as to the nature and scope of the implementation of any proposed reforms limits our ability to forecast changes that may affect our business. In Europe, the success of our products, in particular HEPLISAV, will depend largely on obtaining and maintaining government reimbursement because many providers in European countries are unlikely to use medical products that are not reimbursed by their governments.

A key part of our business strategy is to establish collaborative relationships to commercialize and fund development 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 will need to establish collaborative relationships to obtain domestic and international sales, marketing and distribution capabilities for our product candidates, in particular with respect to the commercialization of HEPLISAV. Failure to obtain a collaborative relationship for HEPLISAV, particularly in the European Union, may significantly impair the potential for this product and our ability to successfully develop, manufacture and commercialize HEPLISAV as a product candidate. We also will need to enter into collaborative relationships to provide funding to support our other research and development programs. 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 event 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, 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 utilize 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 related 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.

The financial terms of future collaborative licensing or financing arrangements could result in dilution of our share value.

Funding from collaboration partners and other parties may in the future involve issuance of our equity securities. Because we do not currently have any such arrangements, we cannot be certain how the terms under which such shares are issued will be determined or when such determinations will be made. The current market for financing or collaborative arrangements often involves the issuance of warrants as additional consideration in establishing the purchase price of the equity securities issued. Any such issuance could result in dilution in the value of our issued and outstanding shares.

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 despite 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 therapies to prevent or treat infectious and inflammatory diseases. Competitors may develop more effective, more affordable or more convenient products or may achieve earlier patent protection or commercialization of their products. These competitive products may render our product candidates obsolete or limit our ability to generate revenues from our product candidates. Many of the companies developing competing technologies and products have significantly greater financial resources and expertise in research and development, general and administrative support, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and marketing than we do.

Existing and potential competitors may also compete with us for qualified scientific and management personnel, as well as for technology that would 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 scientific, manufacturing, sales, marketing, general and administrative and management personnel. 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 implement our current initiatives. If we are unable to compete successfully, we may not be able to obtain financing, enter into collaborative arrangements, sell our product candidates or generate revenues.

The loss of key personnel, including our Chief Executive Officer or our President, could delay or prevent achieving our objectives.

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, Dr. Dino Dina, or our President, Dr. J. Tyler Martin. We currently have no key person insurance on any of our employees.

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. 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 use hazardous materials in our business. Any claims or liabilities relating to improper handling, storage or disposal of these materials 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. We are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these materials 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. However, we cannot eliminate the risk of accidental contamination or injury to persons or property from these materials. In the event of an accident related to hazardous materials, 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.

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 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 in order 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 not able 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 addition, we must make timely payments or meet diligence obligations in order to maintain any such licenses in effect. 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. 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.

Two of our potential competitors, Merck and GlaxoSmithKline ("GSK"), are exclusive licensees of broad patents covering hepatitis B surface antigen, a component of HEPLISAV. In addition, the Institut Pasteur also owns or has exclusive licenses to patents covering hepatitis B surface antigen. While some of these patents have expired or will soon expire outside the United States, they remain in force in the United States. To the extent we are able to commercialize HEPLISAV in the United States while these patents remain in force, Merck, GSK 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 the commercialization of HEPLISAV 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.

One of our potential competitors, Pfizer Inc., has issued patent claims, as well as patent claims pending with the U.S. Patent and Trademark Office and foreign patent offices, that may be asserted against our ISS products. We may need to obtain a license to one or more of these patent claims held by Pfizer by paying fees or royalties or offering rights to our own proprietary technologies in order to commercialize one or more of our formulations of ISS in other than with respect to HEPLISAV, for which we have a license. A license for other uses may not be available to us on acceptable terms, if at all, which could preclude or limit our ability to commercialize our products.

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 or are effectively maintained as trade secrets. 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 United States, 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 United States 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 United States, 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 efforts, in particular any announcements regarding the progress or results of our planned trials and communications from the FDA or other regulatory agencies;
- 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;
- 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;
- our ability to maintain continued listing on the NASDAQ markets or similar exchanges; 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 litigation has often been brought against a company following a decline in the market price of its securities. This risk may be particularly relevant for us because we have experienced greater than average stock price volatility. We may in the future be the target of such litigation. Securities 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, 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 the Company's 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 the Common Shares 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, the Dodd-Frank Act of 2010, as well as new 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 in order 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, 2011, we had 125,611,037 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.

We also have filed registration statements on Form S-3 under the Securities Act of 1933, as amended, to register the shares of our common stock reserved for issuance under the Purchase Agreement, the warrants issued as part of our public offering closed in April 2010, the warrants issued to Symphony Dynamo Holdings LLC ("Holdings") in connection with our acquisition of SDI in December 2009, and warrants issued to Deerfield Management in connection with the July 2007 Loan Agreement.

In addition, we have filed registration statements on Form S-8 under the Securities Act of 1933, as amended, to register the shares of our common stock reserved for issuance under our stock option plans, and intend to file additional registration statements on Form S-8 to register the shares automatically added each year to the share reserves under these plans.

Symphony Capital Partners, L.P. and Symphony Strategic Partners, LLC collectively control a substantial percentage of the voting power of our outstanding common stock as well as $15 million of our debt.

Symphony Capital Partners, L.P. and Symphony Strategic Partners, LLC (collectively, "Symphony") currently collectively control approximately 9,031,431 shares of our common stock and warrants to purchase approximately 4,515,717 shares of our common stock. Based on the number of shares of our common stock that are outstanding as of September 30, 2011, Symphony owns approximately 7% of our total outstanding shares of our common stock. If Symphony exercises all of the warrants held by it and assuming no other issuances of our common stock, Symphony would own approximately 10.4% of our total outstanding shares of common stock as of September 30, 2011. In addition, Holdings, an affiliate of Symphony, holds a promissory note in the principal amount of $15 million, which may be satisfied in cash, Dynavax common stock or a combination of cash and Dynavax common stock, at our election. Finally, under the terms of the Standstill and Corporate Governance Letter Agreement we entered into with Holdings on December 30, 2009, for as long as Holdings and its affiliates, which include Symphony, beneficially own 10% or more of our outstanding common stock, we agreed to use our commercially reasonable efforts to cause to be elected and remain as directors on our Board of Directors one individual designated by Holdings and a second individual who shall be an independent third party designated by Holdings and reasonably acceptable to us. Holdings designated Mark Kessel, a partner of Symphony Capital LLC, as its designee and Mr. Kessel has been appointed to our Board of Directors. On July 22, 2010, the Board of Directors nominated Daniel L. Kisner, M.D. to the Board of Directors as the independent third party designee. As a result, Symphony, Holdings and their affiliates will be able to exercise substantial influence over the direction of the Company.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Document
3.1[1]	Sixth Amended and Restated Certificate of Incorporation
3.2[2]	Amended and Restated Bylaws
3.3[3]	Form of Certificate of Designation of Series A Junior Participating Preferred Stock
3.4[4]	Certificate of Amendment of Amended and Restated Certificate of Incorporation
3.5[5]	Certificate of Amendment of Amended and Restated Certificate of Incorporation
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4 and 3.5 above.
4.2[6]	Registration Rights Agreement
4.3[6]	Form of Warrant
4.4[7]	Form of Specimen Common Stock Certificate
4.5[3]	Rights Agreement dated as of November 5, 2008, by and between Dynavax Technologies Corporation and Mellon Investor Services LLC
4.6[3]	Form of Rights Certificate
4.7[8]	Form of Restricted Stock Unit Award Agreement.
4.8[9]	Form of Amended Warrant
4.9[10]	Form of Warrant
4.10[11]	Registration Rights Agreement dated as of September 20, 2010, by and between Dynavax Technologies Corporation and Aspire Capital Fund, LLC.
10.30†	Agreement dated September 1, 2006, by and between the Company and AstraZeneca AB.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Vice President, Finance pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Vice President, Finance pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
101.LAB*	XBRL Taxonomy Extension Labels Linkbase Document.
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.

(1) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Amendment No. 4 to Registration Statement on Form S-1/A, as filed with the SEC on February 5, 2004 (Commission File No. 000- 50577).

(2) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Quarterly Report on Form 10-Q for the period ended September 30, 2005, as filed with the SEC on November 14, 2005.

(3) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on November 6, 2008.

(4) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on January 4, 2010.

(5) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on January 5, 2011.

(6) Incorporated by reference to Dynavax Technologies Corporation's Registration Statement (File No. 333-145836) on Form S-3 filed on August 31, 2007.

(7) Incorporated by reference to Dynavax Technologies Corporation's Registration Statement (File No. 333-109965) on Form S-1 filed on January 16, 2004.
(8) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, as filed with the SEC.
(9) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Annual Report on Form 10-K, as filed with the SEC on March 16, 2010.
(10) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on April 13, 2010.
(11) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on September 20, 2010.
* Pursuant to applicable securities laws and regulations, the Registrant is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as the Registrant has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fails to comply with the submission requirements. These interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act, are deemed not filed for purposes of section 18 of the Exchange Act and otherwise are not subject to liability under these sections.
† Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Commission.

EXHIBIT INDEX

Exhibit Number	Document
3.1(1)	Sixth Amended and Restated Certificate of Incorporation
3.2(2)	Amended and Restated Bylaws
3.3(3)	Form of Certificate of Designation of Series A Junior Participating Preferred Stock
3.4(4)	Certificate of Amendment of Amended and Restated Certificate of Incorporation
3.5(5)	Certificate of Amendment of Amended and Restated Certificate of Incorporation
4.1	Reference is made to Exhibits 3.1, 3.2, 3.3, 3.4 and 3.5 above.
4.2(6)	Registration Rights Agreement
4.3(6)	Form of Warrant
4.4(7)	Form of Specimen Common Stock Certificate
4.5(3)	Rights Agreement dated as of November 5, 2008, by and between Dynavax Technologies Corporation and Mellon Investor Services LLC
4.6(3)	Form of Rights Certificate
4.7(8)	Form of Restricted Stock Unit Award Agreement.
4.8(9)	Form of Amended Warrant
4.9(10)	Form of Warrant
4.10(11)	Registration Rights Agreement dated as of September 20, 2010, by and between Dynavax Technologies Corporation and Aspire Capital Fund, LLC.
10.30†	Agreement dated September 1, 2006, by and between the Company and AstraZeneca AB.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Vice President, Finance pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Vice President, Finance pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document.
101.SCH*	XBRL Taxonomy Extension Schema Document.
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
101.LAB*	XBRL Taxonomy Extension Labels Linkbase Document.
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document.

(1) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Amendment No. 4 to Registration Statement on Form S-1/A, as filed with the SEC on February 5, 2004 (Commission File No. 000- 50577).
(2) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005, as filed with the SEC on November 14, 2005.
(3) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on November 6, 2008.
(4) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on January 4, 2010.
(5) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on January 5, 2011.
(6) Incorporated by reference to Dynavax Technologies Corporation's Registration Statement (File No. 333-145836) on Form S-3 filed on August 31, 2007.
(7) Incorporated by reference to Dynavax Technologies Corporation's Registration Statement (File No. 333-109965) on Form S-1 filed on January 16, 2004.

(8) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Annual Report on Form 10-K for the year ended December 31, 2008, as filed with the SEC.

(9) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Annual Report on Form 10-K, as filed with the SEC on March 16, 2010.

(10) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on April 13, 2010.

(11) Incorporated by reference from such document filed with the SEC as an exhibit to Dynavax Technologies Corporation's Current Report on Form 8-K, as filed with the SEC on September 20, 2010.

* Pursuant to applicable securities laws and regulations, the Registrant is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as the Registrant has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fails to comply with the submission requirements. These interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act, are deemed not filed for purposes of section 18 of the Exchange Act and otherwise are not subject to liability under these sections.

† Confidential treatment requested as to certain portions, which portions have been omitted and filed separately with the Commission.

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: October 31, 2011

By: /s/ DINO DINA, M.D.
Dino Dina, M.D.
Chief Executive Officer
(Principal Executive Officer)

Date: October 31, 2011

By: /s/ JENNIFER LEW
Jennifer Lew
Vice President, Finance
(Principal Accounting and Financial Officer)

Exhibit 10.30

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WIH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

RESEARCH COLLABORATION AND LICENSE AGREEMENT

by and between

ASTRAZENECA AB

and

DYNAVAX TECHNOLOGIES CORPORATION

DATE: 1 September 2006

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

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RESEARCH COLLABORATION AND LICENSE AGREEMENT

This Research Collaboration and License Agreement (this "**Agreement**") is effective as of the day of September 2006 (the "**Effective Date**"), by and between

(1) **ASTRAZENECA AB**, a company incorporated in Sweden under no. 556011-7482 with offices at S-151 85 Södertälje, Sweden ("**AstraZeneca**"); and

(2) **DYNAVAX TECHNOLOGIES CORPORATION**, a Delaware corporation with offices at 2929 Seventh Street, Suite 100, Berkeley, CA 94710-2753, USA ("**Dynavax**").

Recitals

(A) WHEREAS, AstraZeneca is a global pharmaceutical company with substantial capabilities in the field of drug discovery, development and marketing of pharmaceutical products in several therapy areas including asthma and chronic obstructive pulmonary disease;

(B) WHEREAS, Dynavax is a pharmaceutical company engaged in the discovery and development of novel oligonucleotide agonists of TLR-9 for use in a variety of diseases and disorders, including the treatment of asthma and chronic obstructive pulmonary disease;

(C) WHEREAS, the Parties wish to engage in a collaborative research program utilising Dynavax's knowledge, skills and proprietary technology to identify and develop novel TLR-9 agonists for therapeutic use in the fields of asthma and chronic pulmonary disease with a mutual ambition of developing and marketing any resultant products on a global basis.

Agreement

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

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

1 Definitions

Unless otherwise specifically provided in this Agreement, the following terms have the following meanings:

1.1 **"Advisory Board"** means the committee established and conducted according to Section 4.15.

1.2 **"Affiliate"** means, with respect to a Person, any Person that Controls, is Controlled by or is under common Control with such first Person, in all cases, only for as long as Control actually exists. For purposes of this definition only, **"Control"** means (a) to possess, directly or indirectly, the power to direct the management or policies of a Person, whether through ownership of voting securities or by contract relating to voting rights or corporate governance, or (b) to own, directly or indirectly, more than fifty percent (50%) of the outstanding voting securities or other ownership interest of such Person.

1.3 **"Alliance Manager"** means a Party's representative with responsibility for the activities described in Section 4.9.

1.4 **"Annual Net Sales"** means the Net Sales made during a given calendar year.

1.5 **"Applicable Law"** means the applicable laws, rules and regulations, including any rules, regulations, guidelines or other requirements of the regulatory authorities, that may be in effect from time to time.

1.6 **"Asthma"** means an inflammatory pulmonary disorder that is characterized by reversible obstruction of the airways.

1.7 **"AstraZeneca Information"** has the meaning set forth in Section 13.1.2.

1.8 **"AstraZeneca Know-How"** means all Know-How Controlled by AstraZeneca or its Affiliates prior to and/or during the Term that is [*] for the research, development, manufacture, importation, use or sale of Dynavax ISS, Collaboration ISS, Reverted ISS, CDs, Product or Combination Product(s), excluding Collaboration Know-How.

1.9 **"AstraZeneca Patents"** means any Patents Controlled by AstraZeneca or its Affiliates prior to and/or during the Term that are [*] for the research, development, manufacture, importation, use or sale of Dynavax ISS, Collaboration ISS, Reverted ISS, Product or Combination Product(s), excluding Collaboration Patents.

1.10 **"AstraZeneca Technology"** means AstraZeneca Patents and AstraZeneca Know-How.

1.11 **"Background Technology"** means either the AstraZeneca Technology or the Dynavax Technology, as appropriate and Background Technologies means the AstraZeneca Technology and the Dynavax Technology.

1.12 **[*].**

1.13 **"Candidate Drug"** or **"CD"** means a Dynavax ISS or a Collaboration ISS that is a Lead Candidate satisfying the relevant Candidate Drug Target Profile and [*] as a candidate for further Development and Commercialization as the Product or a Combination Product pursuant to Section 3.10; provided, however, upon the commencement of [*], such Collaboration ISS shall be deemed a Candidate Drug regardless of whether such Collaboration ISS meets the Candidate Drug Target Profile.

1.14 **"Candidate Drug Target Profile"** means the target profile for a Candidate Drug as further defined under the Joint Research Plan, the criteria for which are attached hereto as Exhibit A.

1.15 **"CD Nomination"** means the internal process, known by [*], by which [*].

1.16 **"CD Nomination Date"** means the date upon which a CD Nomination is made.

1.17 **"Change of Control,"** with respect to either Party, means an event in which:

1.17.1 any other Person or group of Persons acquires beneficial ownership of securities of such Party representing more than fifty percent (50%) of the voting power of the then outstanding securities of such Party with respect to the election of directors of such Party; or

1.17.2 such Party effects a merger, consolidation or similar transaction with another Person in which such Party is not the surviving entity in such transaction.

1.18 **[*].**

1.19 **[*].**

1.20 **"Collaboration"** means all activities performed by or on behalf of Dynavax or AstraZeneca in the course of carrying out the Joint Research Programme and Development Plan, as applicable, and otherwise performing their obligations set forth in this Agreement.

1.21 **"Collaboration ISS"** means a [*] generated during the course of the Joint Research Programme. For clarity, and in accordance with Section 3.12.2, a particular ISS will cease being subject to Research under this Agreement, and will accordingly no longer be a Collaboration ISS but will thereupon become a Reverted ISS, when it is no longer prioritized or selected for further research under the Joint Research Programme.

1.22 **"Collaboration Know-How"** means all Know-How generated by the Parties during the Research Term pursuant to the Joint Research Programme or otherwise generated by either Party in connection with the Development of any Collaboration ISS or Product.

1.23 **"Collaboration Patent"** means a Patent filed after the Effective date claiming an invention generated pursuant to the Collaboration and which claims or covers Collaboration Know-How and/or Collaboration ISS.

1.24 **"Collaboration Technology"** means Collaboration Patents, Collaboration Know-How and Collaboration ISS.

1.25 **"Combination Product"** means a pharmaceutical preparation **[*].**

1.26 **"Commence" or "Commencement"** when used to describe a Phase I Trial, Phase II Trial, Phase III Trial or Phase IV Trial, means the first dosing of the first human subject for such trial.

1.27 **"Commercialization"** means the performance of making, importing, using, selling, or offering for sale, including researching, developing, registering, modifying, enhancing, improving, manufacturing, having manufactured, holding/keeping (whether for disposal or otherwise), formulating, optimising, having used, exporting, transporting, distributing, promoting, marketing or having sold or otherwise disposing or offering to dispose of, a Product following Health Registration Approval of such Product in any part of the Territory under this Agreement.

1.28 **"Commercially Reasonable Efforts"** means, with respect to the carrying out of obligations or tasks, efforts and resources commonly used by a pharmaceutical company **[*],** for the active development or commercialisation of a pharmaceutical product of a similar nature, with a similar commercial potential and at a similar stage in the clinical development process as the Product or the applicable Combination Product, based on conditions then prevailing, including without limitation, **[*]**, including **[*].** Commercially Reasonable Efforts shall be determined on a market-by-market basis for the Product or each Combination Product. Notwithstanding anything to the contrary herein, Commercially Reasonable Efforts requires that a Party, at a minimum, **[*].**

1.29 **"Confidential Information"** means, subject to Section 13.3, any information, including any regulatory, scientific or other business information and materials, of a Party and its Affiliates disclosed to the other Party pursuant to this Agreement, and before, on or after the Effective Date of this Agreement or protected under Section 13.1.2.

1.30 **"Control"** means, with respect to any item of information, Patent, Know-How, or other intellectual property, possession of the right, whether directly or indirectly, and whether by ownership, licence or otherwise, to assign, or grant a licence, sublicense or other right to or under, such information, Patent or other intellectual property as provided for herein without violating the terms of any agreement or other arrangement with any Third Party.

1.31 **"COPD"** or "Chronic Obstructive Pulmonary Disease" means a group of lung diseases involving limited airflow and varying degrees of air sac enlargement, airway inflammation, and lung tissue destruction.

1.32 **"Defending Party"** has the meaning set forth in Section 14.7.

1.33 **"Develop" or "Development"** means the performance of preclinical, manufacturing and clinical development and regulatory activities following the acceptance of an IND for a Candidate Drug (or the functional equivalency if the first human clinical trial of such Product or Combination Product is conducted without an IND) and that are reasonably required to obtain Health Registration Approval of the Product or any Combination Product in any part of the Territory under this Agreement.

1.34 **"Development Cost"** means expenses and costs incurred by either Party during Development of a Candidate Drug, the Product or any Combination Product until the First Commercial Sale of the Product or any Combination Product anywhere in the world.

1.35 **"Development Milestone"** has the meaning set forth in Section 9.4.

1.36 **"Development Plan"** has the meaning set forth in Section 8.2.

1.37 **"Disclosing Party"** has the meaning set forth in Section 13.1.1.

1.38 **"Distributor"** has the meaning set forth in Section 6.7.

1.39 **"DMF"** means a Drug Master File.

1.40 **"Dynavax Know-How"** means all Know-How Controlled by Dynavax or its Affiliates prior to and/or during the Term that is **[*]** for the research, development, manufacture, importation, use or sale of the Dynavax ISS, Collaboration ISS, Product or Combination Product(s), excluding the Collaboration Know-How.

1.41 **"Dynavax ISS"** means those ISS synthesised by or on behalf of Dynavax prior to the Research Term and made available for identification and selection as **[*]** candidates pursuant to the Joint Research Plan.

1.42 **"Dynavax Patents"** means any Patents Controlled by Dynavax or its Affiliates as of the Effective Date or during the Term that are **[*]** for the research, development, manufacture, importation, use or sale of the Dynavax ISS, Collaboration ISS, Product or Combination Product(s), including without limitation, the Patents listed on Exhibit B, excluding the Collaboration Patents and the AstraZeneca Patents.

1.43 **"Dynavax Technology"** means the Dynavax Patents, the Dynavax Know-How and Dynavax ISS.

1.44 **"Effective Date"** means the date as set forth in the preamble to this Agreement.

1.45 **"Europe"** means the European Economic Area as it may be constituted from time to time.

1.46 **"Field"** means the use of TLR-9 agonists that **[*]** for the treatment of human patients who have Asthma and/or COPD, including for the prevention of the progression of Asthma and/or COPD in human patients.

1.47 **"First Commercial Sale"** means the first sale for monetary value for use or consumption by the general public of the Product or a Combination Product in any country after Health Registration Approval for such Product or Combination Product has been obtained in such country. For the avoidance of doubt, sales prior to receipt of the Health Registration Approvals necessary to commence regular commercial sales in a country, such as so-called "treatment IND sales," "named patient sales" and "compassionate use sales," shall not be construed as a First Commercial Sale in that country.

1.48 **"First Indication"** means the first Indication in which AstraZeneca obtains the first Health Registration Approval in respect of the Product or a Combination Product.

1.49 **"Force Majeure"** has the meaning set forth in Section 21.1.

1.50 **"Force Majeure Party"** means a Party prevented or delayed in its performance under this Agreement by an event of Force Majeure.

1.51 **"FTE"** means the equivalent of one person working full time for one 12-month period in a research, development, commercialization, regulatory or other relevant capacity, approximating **[*]** hours per year. In the interests of clarity, though, a single individual who works more than **[*]** hours in a single year shall be treated as one FTE regardless of the number of hours worked. FTE effort shall be charged by calculating the individual's total hours dedicated to the applicable activities under this Agreement as a percentage of total hours worked multiplied by the FTE Rate. By way of example, and not in limitation of the foregoing, (a) if a full-time, salaried employee spends 100% of his or her effort hours on the applicable activities under this Agreement, the FTE charge-out rate shall be calculated as the FTE Rate multiplied by 100%, (b) if a full-time, salaried employee spends 50% of his or her effort hours on the applicable activities under this Agreement, the FTE charge-out rate shall be calculated as the FTE Rate multiplied by 50%, and (c) if a seventy-five percent (75%)-time, salaried employee spends fifty percent (50%) of his or her efforts on the applicable activities under this Agreement, the FTE charge-out rate shall be

calculated as the FTE Rate multiplied by thirty-seven and one-half percent (37.5%) (50% x 75% = 37.5%). No FTE credit shall be given for overtime hours. The FTE Rate shall include: **[*]**.

1.52 **"FTE Rate"** means the amount of **[*]** and shall cover the items referred to in the last sentence of Section 1.51 provided, however, that such FTE Rate shall be increased to **[*]** for FTE efforts provided by Dynavax in excess of those set forth in Section 3.4.

1.53 **"Good Clinical Practices" or "GCP"** means current Good Clinical Practices as specified in the United States Code of Federal Regulations, at the time of testing, and all FDA and ICH guidelines, including the ICH Consolidated Guidelines on Good Clinical Practices.

1.54 **"Good Laboratory Practices" or "GLP"** means current Good Laboratory Practices as specified in the United States Code of Federal Regulations at 21 CFR § 58 at the time of testing and all applicable ICH guidelines.

1.55 **"Governmental Authority"** means any court, agency, department or other instrumentality of any national, federal, state, county, city or other political subdivision.

1.56 **"Health Registration Approval"** means, with respect to a country, any and all approvals, licences, registrations or authorisations (including supplements and amendments) of any national, supra-national (e.g., European Commission or the Council of the European Union or its equivalent), regional, state or local health or regulatory authority, agency, department, bureau, commission, council or other governmental entity, necessary to commercially manufacture, distribute, sell or market the Product or a Combination Product in such country, including, where applicable, (a) pricing and reimbursement approval in such country, (b) pre- and post-approval marketing authorisations (including any prerequisite manufacturing approval or authorisation related thereto), (c) labelling approval and (d) technical, medical and scientific licences.

1.57 **"IND"** means an Investigational New Drug application with the FDA or its foreign equivalent application or filing filed with an equivalent agency or Governmental Authority outside of the United States (including any supra-national agency such as in Europe) necessary to Commence human clinical trails in such jurisdiction, and consistent with all regulations at 21 CFR § 312 et. seq. and equivalent foreign regulations.

1.58 **“Indemnification Claim Notice”** has the meaning set forth in Section 19.4.

1.59 **“Indemnified Party”** means a Party seeking to recover a Loss under Section 19.1 or 19.2.

1.60 **“Indemnifying Party”** means a Party from whom recovery of a Loss is sought under Section 19.1 or 19.2

1.61 **“Indemnitee”** has the meaning set forth in Section 19.4.

1.62 **“Indication”** means the treatment of Asthma, COPD, or any other disease or condition that the Parties agree, by amendment to this Agreement, to include within the Field.

1.63 **“Indirect Taxes”** means value added taxes, sales taxes, consumption taxes and other similar taxes.

1.64 **“Information”** means all technical, scientific and other information, trade secrets, patents and other legal information or descriptions, knowledge, technology, means, methods, processes, practices, formulae, instructions, skills, techniques, procedures, experiences, ideas, technical assistance, designs, drawings, assembly procedures, computer programs, apparatuses, specifications, data, results and other material, including: high-throughput screening, gene expression, genomics, proteomics and other drug discovery and development technology; biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, pre-clinical, clinical, safety, manufacturing and quality control data and information, including study designs and protocols; assays and biological methodology; manufacturing and quality control procedures and data, including test procedures; and synthesis, purification and isolation techniques, (whether or not confidential, proprietary, patented or patentable) in written, electronic or any other form now known or hereafter developed.

1.65 **“Infringement Suit”** has the meaning set forth in Section 14.5.

1.66 **“IP”** has the meaning set forth in Section 20.9.

1.67 **“ISS”** means any synthetic oligonucleotide sequence or chimeric oligonucleotide sequence that modulates an immune response and is a TLR-9 agonist, including, but not limited to, such sequences referred to by Dynavax as immunostimulatory sequences, chimeric immunomodulatory compounds and branched immunomodulatory compounds.

1.68 **“Joint Project Team”** or **“JPT”** means the joint team established by the Parties pursuant to Article 4 to manage the day-to-day work within the Joint Research Programme.

1.69 **“Joint Research Plan”** means the project plan that outlines the Joint Research Programme and each Party’s obligations thereunder, including the allocation of FTEs by Dynavax, as further described in Section 3.3.

1.70 **“Joint Research Programme”** means the research programme described in the Joint Research Plan.

1.71 **“Joint Research Programme Milestones”** has the meaning set forth in Section 9.3.

1.72 **“Joint Steering Committee”** or **“JSC”** means the joint committee established by the Parties pursuant to Article 4 to oversee, manage and steer the Joint Research Programme during the Collaboration Term.

1.73 **“Know-How”** means any non-public, proprietary Information and other data, instructions, processes, methods, formulae, materials, expert opinions and information, including without limitation, biological, chemical, pharmacological, toxicological, pharmaceutical, physical and analytical, clinical, safety, manufacturing and quality control data and information. Know-How does not include any rights under Patents.

1.74 **“Knowledge”** means the knowledge, information or belief of any officer, or of any employee with the title of Global Vice President, Senior Scientist or higher, of either Dynavax or AstraZeneca, as the case may be, after each of them has made reasonable inquiry into the relevant subject matter.

1.75 **“Lead Candidate”** means a Dynavax ISS or Collaboration ISS that, in accordance with the Joint Research Plan, has been **[*]** at the time of its Lead Candidate Development Decision for further preclinical evaluation.

1.76 **"Lead Candidate Development Decision"** means the internal process, known by **[*]**, by which **[*]**.

1.77 **"Lead CD"** means the CD nominated by AstraZeneca for Development and Commercialisation.

1.78 **"Lead Research Candidate"** means a Dynavax ISS or Collaboration ISS that has been **[*]** for further research.

1.79 **"Losses"** means any and all liabilities, claims, demands, causes of action, damages, loss and expenses, including interest, penalties, and reasonable lawyers' fees and disbursements.

1.80 **"MAA"** means a Marketing Authorization Application filed with the European Medicines Agency (known as the EMEA), or any substantial equivalent of such application or entity.

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

1.82 **"NDA"** means a New Drug Application (or other application for initial Health Registration Approval) filed with the FDA or the equivalent application or filing filed with any equivalent Governmental Authority outside of the United States necessary for approval of a drug or biologic in such jurisdiction.

1.83 **"Net Sales"** means, with respect to the Product and/or any Combination Product (subject to Section 10.2 below), the gross invoiced amount on sales of the Product or Combination Product by AstraZeneca, its Affiliates or their permitted Sublicensees to Third Parties (including Distributors) after deduction of (a) normal and customary trade, quantity or prompt settlement discounts (including chargebacks and allowances) actually allowed; (b) amounts actually repaid or credited by reason of rejection, returns or recalls of goods, rebates or bona fide price reductions determined by AstraZeneca or its Affiliates in good faith; (c) rebates and similar payments made with respect to sales paid for by any governmental or regulatory authority such as, by way of illustration and not in limitation of the Parties' rights hereunder, Federal or state Medicaid, Medicare or similar state program in the United States or equivalent governmental program in any other country; (d) **[*]** as an allowance for transportation costs, distribution expenses, special packaging and related insurance

charges; (e) any invoiced amounts which are not collected by AstraZeneca or its Affiliates, including bad debts; (f) excise taxes, Indirect Taxes, customs duties, customs levies and import fees actually imposed on the sale, importation, use or distribution of the Product or Combination Product as applicable; and (g) any other similar and customary deductions that are consistent with generally accepted accounting principles, or in the case of non-United States sales, other applicable accounting standards. Net Sales shall be calculated using AstraZeneca's internal audited systems used to report such sales as adjusted for any of items (a) to (g) above not taken into account in such systems. Deductions pursuant to subsection (e) above shall be taken in the calendar quarter in which such sales are no longer recorded as a receivable.

1.84 **"Parties"** means collectively AstraZeneca and Dynavax and **"Party"** means individually either of AstraZeneca or Dynavax.

1.85 **"Patents"** means (a) all issued unexpired national, regional and international patents and (including inventor's certificate) that has not been held invalid or unenforceable by a court of competent jurisdiction from which no appeal can be taken or has been taken within the required time period; (b) all national, regional and international patent applications, including provisional patent applications, (b) all patent applications filed either from such patents, patent applications or provisional applications or from an application claiming priority from either of these, including divisionals, continuations, continuations-in-part, provisionals, converted provisionals, and continued prosecution applications, (c) any and all unexpired patents that have issued or in the future issue from the foregoing patent applications ((a) and (b)), including utility models, petty patents and design patents and certificates of invention, (d) any and all substitutions, extensions or restorations by existing or future extension or restoration mechanisms, including revalidations, reissues, renewal, re-examinations and extensions (including any supplementary protection certificates and the like) of the foregoing patents or patent applications ((a), (b) and (c)), and (e) any similar rights, including so-called pipeline protection, or any importation, revalidation, confirmation or introduction patent or registration patent or patent of additions to any such foregoing patent applications and patents.

1.86 **"Payments"** has the meaning set forth in Section 11.1.

1.87 **“Person”** means an individual, sole proprietorship, partnership, limited partnership, limited liability partnership, corporation, limited liability company, business trust, joint stock company, trust, incorporated association, joint venture or similar entity or organization, including a government or political subdivision, department or agency of a government.

1.88 **“Phase I Trial”** means a clinical trial that generally provides for the first introduction into humans of the Lead CD or any CD to be incorporated into a Combination Product with the primary purpose of determining safety, metabolism and pharmacokinetic properties and clinical pharmacology of the relevant CD, and generally consistent with 21 CFR § 312.21(a).

1.89 **“Phase II Trial”** means a clinical trial of the CD or any CD to be incorporated into a Combination Product on patients, including possibly pharmacokinetic studies, the principal purpose of which is to make a preliminary determination that such CD is safe for its intended use and to obtain sufficient information about the CD’s efficacy to permit the design of further clinical trials, and generally consistent with 21 CFR § 312.21(b).

1.90 **“Phase III Trial”** means a clinical trial that provides for a pivotal human clinical trial of the Product or a Combination Product, which trial is designed to: (a) establish that the Product or Combination Product is safe and efficacious for its intended use; (b) define warnings, precautions and adverse reactions that are associated with the Product or Combination Product in the dosage range to be prescribed; (c) support Health Registration Approval of such Product or Combination Product; and (d) generally consistent with 21 CFR § 312.21(c).

1.91 **“Phase IV Trial”** means a clinical trial of the Product or any Combination Product Commenced in a particular country after Health Registration Approval for such Product or Combination Product in such country in order to support Commercialization of the Product or Combination Product, as appropriate.

1.92 **“Primary ISS”** means, in accordance with the Joint Research Plan, **[*]** Dynavax ISS or Collaboration ISS selected **[*]**.

1.93 **“Primary Screening Phase”** means, in accordance with the Joint Research Plan, the **[*]**.

1.94 **"Product"** means a pharmaceutical preparation **[*]**.

1.95 **"Project Leader"** means a Party's representative with responsibility for the activities set forth in Section 4.3.

1.96 **"Prosecuting Party"** has the meaning set forth in Section 14.2.2.

1.97 **"Receiving Party"** has the meaning set forth in Section 13.1.1.

1.98 **"Regents"** has the meaning set forth in Section 10.5.1.

1.99 **"Regulatory Authority"** means any Governmental Authority with responsibility for granting any licenses or approvals necessary for the marketing and sale of pharmaceutical products including, without limitation, the FDA and any drug regulatory authority of countries of Europe, and Japan, and where applicable any ethics committee or any equivalent review board.

1.100 **"Regulatory Documentation"** means, with respect to the Product or Combination Product, all Regulatory Filings and supporting documents created, submitted to the FDA or any equivalent agency or government authority outside of the United States (including any supra-national agency such as in Europe) relating to such Product or Combination Product, and all data contained therein, including, without limitation, any IND(s), NDA(s), MAA(s), Biological Licence Applications (BLA(s)), Investigator's Brochures, DMF, correspondence to and from the FDA or any equivalent agency or Governmental Authority outside of the United States, minutes from teleconferences with Regulatory Authorities, registrations and licenses, regulatory drug lists, advertising and promotion documents shared with Regulatory Authorities, adverse event files, complaint files and manufacturing records.

1.101 **"Regulatory Filing"** means the NDA, MAA, BLA, IND, or any foreign counterparts thereof and any other filings required by regulatory authorities relating to the study, manufacture or Commercialization of the Product or any Combination Product.

1.102 **"Research"** means, with respect to a particular Dynavax ISS or Collaboration ISS, Product or Combination Product, the research and preclinical development activities undertaken in the Joint Research Programme up to and including the acceptance by the appropriate Regulatory Authority of an IND covering such Dynavax ISS, Collaboration ISS, Product or Combination Product (or first human dosing if done without an IND).

1.103 **“Research Budget”** means the funding to be provided by AstraZeneca to Dynavax in relation to the Joint Research Programme as specified in Section 3.3.

1.104 **“Research Budget Variance”** means any variance to the Research Budget as set out in the Research Plan that is permitted without further agreement of the Parties, and which variance shall not exceed [*] of the agreed research Budget.

1.105 **“Research Term”** has the meaning set forth in Section 3.2.

1.106 **“Reverted ISS”** means an ISS that once was a Dynavax ISS or Collaboration ISS but that was not prioritized or selected for further Research in accordance with Section 3.10, or reverted in accordance with Sections 3.12.2 or 8.12, thereby reverting to Dynavax for use outside the Field and no longer subject to the Joint Research Programme.

1.107 **“Round One Optimization Candidates”** means, in accordance with the Joint Research Plan, those Collaboration ISS that are **[*]** using **[*]**.

1.108 **“Round Two Optimization Candidates”** means, in accordance with the Joint Research Plan, those Collaboration ISS that are **[*]**, using **[*]**.

1.109 **“Royalty-Bearing Claim”** means, with respect to a Dynavax Patent or a Collaboration Patent: (a) **[*]**, or (b) **[*]**.

1.110 **“Royalty Term”** has the meaning set forth in Section 10.8.

1.111 **“Second Indication”** means the second Indication in which AstraZeneca obtains a Health Registration Approval in respect of the Product or a Combination Product.

1.112 **“Secondary Screening Phase—Stage 1”** means, in accordance with the Joint Research Plan, the **[*]**.

1.113 **“Secondary Screening Phase—Stage 2”** means, in accordance with the Joint Research Plan, the **[*]**.

1.114 **“Sequence Modify”** or “Sequence Modification” means to modify an ISS by changing, adding to, or subtracting from the **[*]**.

1.115 **"Sublicensee"** means any Person, other than an Affiliate or a Party, to which such Party has granted a sublicense under this Agreement.

1.116 **"Term"** means the period beginning on the Effective Date and continuing until the earlier of the date upon which this Agreement expires by its terms or is terminated in accordance with Article 20.

1.117 **"Territory"** means all countries in the World, except those countries in respect of which this Agreement has been terminated, pursuant to this Agreement.

1.118 **"Third Indication"** means the third Indication in which AstraZeneca obtains a Health Registration Approval in respect of the Product or a Combination Product.

1.119 **"Third Party"** means any Person not including the Parties, the Parties' respective Affiliates or the Sublicensees.

1.120 **"Third Party Claims"** has the meaning set forth in Section 19.1.

1.121 **"TLR-9"** means toll-like receptor 9.

1.122 **"Triggering Event"** has the meaning set forth in Section 6.4.2.

1.123 **"Valid Claim"** means, with respect to a particular country, either:

1.123.1 any Royalty-Bearing Claim of a granted and unexpired Dynavax Patent and/or Collaboration Patent in such country that (a) has not been held permanently revoked, unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal, and (b) has not been abandoned, disclaimed, denied or admitted to be invalid or unenforceable through reissue or disclaimer or otherwise; or

1.123.2 a Royalty-Bearing Claim of a pending Dynavax Patent and/or Collaboration Patent application, which claim was filed and is being prosecuted in good faith and has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application, provided that such application has not been pending for more than five (5) years.

2 Construction

Except where the context requires otherwise, whenever used the singular includes the plural, the plural includes the singular, the use of any gender is applicable to all genders and the word “or” has the inclusive meaning represented by the phrase “and/or.” Whenever this Agreement refers to a number of days, unless otherwise specified, such number refers to calendar days. The headings of this Agreement are for convenience of reference only and do not define, describe, extend or limit the scope or intent of this Agreement or the scope or intent of any provision contained in this Agreement. The term “including” or “includes” as used in this Agreement means including, without limiting the generality of any description preceding such term. The wording of this Agreement shall be deemed to be the wording mutually chosen by the Parties and no rule of strict construction shall be applied against any Party.

3 Conduct of the Joint Research Programme

3.1 Overview .The objective of the Joint Research Programme shall be to identify and select for development, manufacture, and commercialization one Product and/or Combination Product(s) based on one or more Candidate Drugs. As described in greater detail in the Joint Research Plan and this Article 3, Dynavax will identify and propose to AstraZeneca a pool of **[*]** Dynavax ISS representing each of the three major classes of ISS. Thereafter, the Parties will engage in **[*]** primary and **[*]** secondary screening phases to optimize and select **[*]** Lead Candidate and **[*]**. After further characterization of the Lead Candidate, a Lead Candidate Drug shall be selected for clinical development. The Parties may agree to conduct **[*]**, will each consist of the synthesis and selection of **[*]** Dynavax ISS or Collaboration ISS, in each such optimization phase. All decisions to select molecules for advancement or development shall be **[*]**, subject to the terms of this Agreement; provided, however, that **[*]**, or perform Research or Development on any ISS other than the Dynavax ISS or the Collaboration ISS, selected for Research and Development pursuant to this Agreement. In conducting the foregoing work, Dynavax shall have no obligation to identify or present an ISS for inclusion in the Joint Research Programme if such ISS is then currently under research in a separate Dynavax programme or is then currently subject to rights of a Third Party.

3.2 Research Term. The research term (the **"Research Term"**) shall commence on the Effective Date and shall continue until the earlier of (a) the third anniversary of the Effective Date or such later date as AstraZeneca may specify pursuant to this Section 3.2, and (b) the effective date of any termination of this Agreement pursuant to Article 20. The FTE funding commitments of AstraZeneca set forth in Section 3.3 and the payment obligations of AstraZeneca set forth in Section 7.1 shall remain in force until the end of the Research Term. The Research Term may be extended by **[*]** no more than **[*]** upon written agreement between the Parties at least **[*]** prior to the end of the third year or the relevant extension period thereof.

3.3 Joint Research Plan. The Joint Research Plan has been approved by the Parties concurrent with the execution of this Agreement. The Parties acknowledge and agree that the Joint Research Plan attached hereto as Exhibit C sets forth the goals and objectives of the Joint Research Programme and the broad terms of the Parties' respective undertakings to achieve those goals and objectives. The Joint Research Plan will be reviewed and (if required) amended by the JSC (subject to Section 4.11) annually or from time to time during the Research Term to identify and define the specific undertakings of the Parties and the associated costs and expenses required to implement the Joint Research Programme. In the event of any inconsistency or disagreement between a Joint Research Plan and this Agreement, the terms of this Agreement shall prevail.

3.4 Research Effort and Support. Dynavax shall supply **[*]** FTEs during each of the first **[*]** contract years of the Research Term and **[*]** FTEs during the **[*]** contract year of the Research Term, unless otherwise mutually agreed by the Parties. Changes in such level of effort may be at the discretion of the JSC (subject to Section 4.11), provided Dynavax receives at least **[*]** months prior notice of any change in the maximum level of FTEs provided hereunder. The JSC shall not be entitled to give notice of its intention to change the level of FTE effort within the first **[*]** months of the Research Term. The Parties acknowledge that Dynavax may provide increasing level of technical assistance for the transfer of certain technology to AstraZeneca or its designee during the **[*]** contract year of the Research Term, which may lead the number of FTEs to be provided by Dynavax in that time period to be increased by the Parties' mutual agreement. In the event of an extension of the Research Term, the Parties shall agree at that time on the number of FTEs that Dynavax shall supply in

such extension period of the Research Term. AstraZeneca shall fund such FTEs as set forth in Section 7.1. AstraZeneca understands and agrees that Dynavax retains complete discretion to alter and reallocate the individuals who compose such FTEs and to alter the frequency and time which any individual devotes to the Joint Research Programme, provided that all such FTEs are appropriately skilled to perform the Joint Research Programme. All scientific work on or directly related to the Joint Research Programme performed by such individuals shall count towards the fulfilment of Dynavax's FTE commitment pursuant to this Section 3.4. Such work may include, but is not limited to, experimental laboratory work, recording and writing up results, reviewing literature and references, holding scientific discussions, organizing and attending scientific meetings and conferences, managing and leading scientific staff, and carrying out Joint Research Programme management duties (including service on the JPT). All JSC pre-approved external costs, if any, incurred by Dynavax in connection with its performance of its obligations under the Joint Research Programme throughout the Research Term, to the extent not included in the FTE Rate, shall be separated invoiced by Dynavax to AstraZeneca and reimbursed by AstraZeneca pursuant to Section 7.2. The Parties acknowledge that the FTE Rate does not include the costs or expenses of [*].

3.5 Conduct of Research.

3.5.1 Commercially Reasonable Efforts. The Parties shall use Commercially Reasonable Efforts to conduct their respective tasks as assigned under the Joint Research Plan, provided that Dynavax shall not be obligated to devote any resources to the Joint Research Programme in excess of the FTEs funded by AstraZeneca pursuant to Section 3.4. In addition, during the Research Term and under the direction and supervision of the JSC, each Party shall (a) perform or cause to be performed its obligations under the Joint Research Programme in good scientific manner and in compliance in all material aspects with all Applicable Law, and (b) allocate sufficient time, effort, equipment and skilled personnel to complete such activities successfully and promptly.

3.5.2 Facilities and Personnel. The Parties shall provide facilities, equipment and manpower that are reasonably necessary or useful to carry out the work to be

undertaken under the Joint Research Programme. Each of the Parties may perform or cause to be performed its obligations under the Joint Research Programme at its own facilities or at those of its permitted subcontractors and Sublicensee(s), listed in Exhibit D, as applicable.

3.5.3 Use of Animals. Insofar as the Joint Research Programme involves the use of animals, each of AstraZeneca and Dynavax shall conduct all activities pursuant to the Joint Research Programme in accordance with any local laws and regulations applicable to the facility in which such activities occur and in accordance with the AstraZeneca policy on such use applicable at the Effective Date, a copy of which has been provided to Dynavax.

3.5.4 Subcontracting. Each Party shall be solely responsible for successfully completing its activities set forth in the Joint Research Plan. The Parties shall conduct and carry out all activities provided for under the Joint Research Programme through its employees at the site(s) identified under Section 3.5.2 unless and only to the extent the JSC approves the Party's engaging a subcontractor to carry out a portion of such Research activities or, if applicable, approves a major outsourcing or collaboration agreement with a Third Party. Notwithstanding the foregoing, as of the Effective Date, each of Dynavax and AstraZeneca have agreed that Dynavax may engage the Persons listed on Exhibit D to perform the specified activities of Dynavax under the Joint Research Plan. Any permitted subcontractor shall be subject to the applicable terms and conditions of this Agreement, including Articles 6 and 13, and, upon a Party's request, the other Party shall require each such subcontractor to enter into an undertaking, pursuant to which the terms and conditions of this Agreement shall apply directly between such subcontractor and AstraZeneca or Dynavax, as applicable, prior to disclosing to such subcontractor any of the other Party's Confidential Information; provided, however, that the subcontracting Party shall remain ultimately responsible for the performance of its obligations under this Agreement. The costs incurred by Dynavax in subcontracting activities under the Joint Research

Programme shall be borne by Dynavax, except as provided in the following two sentences. All JSC pre-approved external costs, if any, incurred by Dynavax in connection with its performance of its obligations under the Joint Research Programme throughout the Research Term, to the extent not included in the FTE Rate, shall be separately invoiced by Dynavax to AstraZeneca and reimbursed by AstraZeneca pursuant to Section 7.2. The Parties acknowledge that the FTE Rate does not include the costs or expenses of [*].

3.6 Materials and Information Transfer. Each Party shall, and shall cause its Affiliates to, [*], to the extent that they are legally permitted so to do, (a) provide to the other Party the materials or equipment specified from time to time in this Agreement or the Joint Research Plan, and (b) disclose and make available to the other Party, in whatever form such Party may reasonably request, all Background Technology and Collaboration Technology relating, directly or indirectly, to the Joint Research Programme, immediately after the Effective Date and thereafter immediately upon the earlier of the conception or reduction to practice, discovery, development or making of such Background Technology and Collaboration Technology. All such Background Technology and Collaboration Technology shall be used by the receiving Party only as permitted under the applicable license rights granted under Article 6 and subject to all other restrictions and obligations under this Agreement. Except as otherwise provided under this Agreement, all such Background Technology delivered to the other Party will remain the sole property of the supplying Party, will be used only in furtherance of and in accordance with this Agreement, and together with the Collaboration Technology will not be used or delivered to or for the benefit of any Third Party without the prior written consent of the supplying Party, and will be used in compliance with all Applicable Law, will be provided without any warranties, express or implied and the Party providing them shall obtain (or cause its Third Party collaborators to obtain or certify that they have obtained) all appropriate and required consents from the source of such Background Technology and Collaboration Technology. The Background Technology and Collaboration Technology supplied under this Agreement shall be used with prudence and appropriate caution in any experimental work because not all of their characteristics may be known. Without prejudice to the generality of the foregoing, if visits of either Party's representatives to the other Party's facilities are reasonably requested for purposes of transferring the Background Technology and Collaboration Technology to such Party or for purposes of such requesting Party to acquire expertise on the practical application of the Background Technology and Collaboration Technology or assisting on issues arising

during the Research, the other Party will send appropriate representatives to the requesting Party's facilities, provided that the requesting Party shall reimburse the other Party for its reasonable and verifiable expenses of travel and accommodations for such representatives.

3.7 Cooperation. Each Party shall cooperate with any and all reasonable requests for assistance from the other Party with respect to the activities under the Joint Research Programme, including by making its employees, consultants and other scientific staff available upon reasonable notice during normal business hours at their respective places of employment to consult with such other Party on issues arising in connection with the Joint Research Programme.

3.8 Regulatory Records. Dynavax and AstraZeneca each shall maintain, or cause to be maintained, records of its respective activities under the Joint Research Programme in sufficient detail and in good scientific manner appropriate for patent and regulatory purposes, which shall be complete and accurate and shall fully and properly reflect all work done and results achieved in the performance of its respective activities under the Joint Research Programme, and which shall be retained by such Party for at least [*] years after the termination of this Agreement, or for such longer period as may be required by Applicable Law. Subject to bona fide confidentiality obligations to a Third Party, each Party shall have the right, during normal business hours and upon reasonable notice, to inspect and copy any such records to the extent necessary for such Party to conduct its Research or perform its other obligations under this Agreement, or to secure or enforce Patents licensed under this Agreement.

3.9 Reports. Each Party assigned an obligation under the Joint Research Programme shall report to the JPT no less than [*], which report shall include a written progress report summarizing the work performed under the Joint Research Programme. The JPT shall define the format and the nature of the content of the [*] report, which format and nature shall be adopted by both Parties.

3.10 Lead Candidate Development Decision.

It is the objective of the Parties that [*] will be able to [*] within [*] days after the prioritization of the Lead Research Candidate and [*] thereto, whereby [*] will [*]. Upon written notice of such selection, the Parties shall conduct further

research and characterization of the Lead Candidate with the objective of determining whether the Lead Candidate satisfies the criteria as a Candidate Drug, as specified in Exhibit A, together with any necessary further research and characterization of [*] by AstraZeneca as may reasonably be necessary, as determined by [*], to establish the relative merits of the selected Lead Candidate [*] so as to enable AstraZeneca to progress one such candidate to CD Nomination. The Parties may agree to extend any particular phase of the Joint Research Plan.

3.11 CD Nomination.

It is noted that [*] has the right, but not the obligation, to nominate all of the Lead Candidate [*] as CD's pursuant to this Agreement. The first CD nominated shall be designated as the Lead CD and subject to the right to replace such CD as specified in Section 8.10 below, all subsequent Development or Commercialisation by AstraZeneca pursuant to this Agreement shall be directed at such Lead CD.

3.12 Overview of Joint Research Programme

3.12.1 The Joint Research Programme shall be conducted in accordance with the Joint Research Plan attached as Exhibit C hereto. Once a Dynavax ISS or a Collaboration ISS is designated a Candidate Drug [*], no further work shall be performed upon it pursuant to the Joint Research Programme, provided, however, if AstraZeneca desires Dynavax to perform further work on such Candidate Drug [*], Dynavax shall [*], provided that the Parties [*].

3.12.2 All rights to any Dynavax ISS or Collaboration ISS, other than the Candidate Drug [*], not selected for advancement in the Joint Research Programme shall revert immediately to Dynavax, and shall thereafter be Reverted ISS.

3.13 Selection of Compounds.The Parties acknowledge that [*] shall have the right in its sole discretion at any time during or after the Research Term, to determine which, if any, Dynavax ISS or Collaboration ISS to select for further Research and selection for CD Nomination and which CD to select for further Research, Development and Commercialization, under this Agreement. [*] shall without delay notify in writing [*], as applicable, of any such selections and decisions. For clarity, nothing in this Section 3.13 shall limit Dynavax's rights to Reverted ISS. In particular, AstraZeneca shall have no rights to select a Reverted ISS for further Research, Development or Commercialization under this Agreement.

4 Support and Management of the Joint Research Programme

4.1 Overview of the Management of the Joint Research Programme. The collaboration established by this Agreement shall be overseen by a Joint Steering Committee and a Joint Project Team, each of which, shall be established by the Parties after the Effective Date. Without limiting anything set forth in this Article 4, the Joint Steering Committee shall manage and steer the overall Collaboration and the Joint Project Team shall manage the day-to-day work within the Joint Research Programme during the Research Term. Following the CD Nomination Date, the Parties shall establish an Advisory Board to advise AstraZeneca in its Development and Commercialization of the CD, Product or any Combination Product.

4.2 Responsibilities of JPT. The Parties shall establish a Joint Project Team (the "JPT") within ten (10) days following the Effective Date which shall be responsible for managing the day-to-day work within the Joint Research Programme and which shall report to the JSC. In particular, the responsibilities of the JPT shall include:

4.2.1 proposing the strategic research goals and directions for the Joint Research Programme;

4.2.2 preparing and proposing milestones, go/no go criteria and criteria for evaluation of the Joint Research Programme;

4.2.3 proposing the Joint Research Plan, Research Budget, Research Budget Variance and any amendments thereto;

4.2.4 monitoring the progress of the Joint Research Programme;

4.2.5 monitoring workflow and proposing the allocation of resources for carrying out the Joint Research Programme;

4.2.6 proposing priorities for the Joint Research Programme and in view of the capacities of the Parties;

4.2.7 proposing prioritisation criteria for specific components under the Joint Research Programme, including setting proposed dates for experimental initiation and completion of each stage of the Joint Research Programme;

4.2.8 approving the Candidate Drug Target Profile using the criteria set forth in Exhibit A;

4.2.9 **[*]**;

4.2.10 **[*]**;

4.2.11 developing and proposing updates of the Joint Research Programme;

4.2.12 proposing any subcontractor or major outsourcing and/or collaboration agreements with Third Parties as appropriate;

4.2.13 proposing a publications strategy and preparing and proposing specific items related to the Joint Research Programme for publication; and

4.2.14 preparing and monitoring budgets for the Joint Research Programme in discussion with the JSC.

4.3 Formation of JPT. The JPT shall consist of [*] members who are employees of either Dynavax or AstraZeneca or their Affiliates, as applicable, with the requisite experience and seniority to enable them to make proposals on behalf of the Parties with respect to the Joint Research Programme, with equal numbers appointed by each respective Party, which shall include a Project Leader to be designated by each Party. The Project Leaders shall each be responsible for all day-to-day Joint Research Programme activities undertaken by the appointing Party and shall supervise and coordinate the work of all personnel engaged by each Party in the Joint Research Programme. Notwithstanding the foregoing, each Party shall continue to be responsible for performing the activities undertaken by it under the Joint Research Programme. Each Party shall have the right to replace its respective JPT representatives upon written notice to the other Party, provided that any such substitute representative shall be an employee of such Party or its Affiliates and shall have substantially the equivalent experience and seniority as the representative that such person replaces. Representatives of each Party other than the members of the JPT may attend JPT meetings at the invitation of either Party with the prior approval of the other Party, which approval shall not be unreasonably withheld.

4.4 JPT Meetings. The JPT shall meet at least monthly and more frequently when required. The first JPT meeting will be held within twenty (20) days after the Effective Date and thereafter meetings will be held alternately at the offices of Dynavax and AstraZeneca unless the Parties agree on another location, or by teleconference or videoconference. A quorum of the JPT shall exist whenever there is present at a meeting each of the Project Leaders or their respective designees. The Project Leaders shall act as co-chairs for JPT meetings. In addition, the JPT may act without a formal meeting by a written memorandum signed by the Project Leaders. The JPT may also invite other personnel of the Parties to attend meetings of the JPT as appropriate to the agenda for such meeting, after giving notice to the other Party. Whenever any action by the JPT is required hereunder during a time period in which the JPT is not scheduled to meet, either Project Leader shall have the right to call a special meeting or the Project Leaders may cause the JPT to take the action without a meeting in the applicable time period. Any such additional meetings shall be held at places and on dates selected by the Project Leaders. The JPT may by unanimous consent, amend or expand upon the foregoing procedures for its internal operations.

4.5 JPT Decision Making : Disputes. All decisions of the JPT made pursuant to this Agreement shall be made by unanimous consent of its members. If for any reason the JPT cannot reach unanimity regarding a particular matter, then, such matter shall be resolved in a second meeting to be held within twenty (20) Business Days from the meeting in which the disputed matter has remained unresolved. In the event that the JPT is again unable to resolve the matter the disputed matter shall be promptly referred to the JSC for resolution.

4.6 JPT Minutes. The JPT shall keep accurate minutes of its deliberations, which minutes shall record all proposed decisions and all actions recommended or taken. Drafts of minutes shall be delivered to the Project Leaders within twenty (20) days after the respective meeting. The Parties, on an alternating basis, shall prepare and circulate the draft minutes. Draft minutes shall be edited by the Project Leaders and shall be issued in final form only with the approval and agreement of the Project Leaders.

4.7 Dissolution of JPT . Following the termination or expiration of the Research Term the JPT shall be dissolved.

4.8 Responsibilities of JSC. The Parties shall establish a Joint Steering Committee (the **"JSC"**) within ten (10) days following the Effective Date, to oversee the initiation, planning and performance of the activities under the Joint Research Programme based on the proposals and activities of the JPT. In particular, the responsibilities of the JSC shall include:

4.8.1 approving the strategic research goals and direction for the Joint Research Programme;

4.8.2 approving the go/no go criteria and criteria for evaluation of the Joint Research Programme;

4.8.3 reviewing and approving the Research Project Plan, Research Budget, Research Budget Variance and any amendments thereto;

4.8.4 approving workflow and the allocation of resources for carrying out the Joint Research Programme taking into account each Party's respective specific capabilities and expertise in order to avoid duplication and enhance efficiency and synergies;

4.8.5 approving priorities for the Joint Research Programme and capacities of the Parties;

4.8.6 approving prioritisation criteria for specific components under the Joint Research Programme, including setting proposed dates for experimental initiation and completion of each stage of the Joint Research Programme;

4.8.7 monitoring and ensuring timely execution of the Joint Research Programme, including compliance with budgets and timelines;

4.8.8 determining within [*] days of the completion of each stage of the Joint Research Programme whether the completion thereof has been successful and deciding whether or not to continue the Joint Research Programme into the next stage (i.e., making "stop/go decisions");

4.8.9 **[*]**

4.8.10 **[*]**

4.8.11 approving any significant changes to the staffing (FTE) levels or the funding of the Joint Research Programme;

4.8.12 approving any subcontractors or major outsourcing and/or collaboration agreements with Third Parties as appropriate;

4.8.13 ensuring timely and appropriate support in the filing of Patent applications;

4.8.14 approving the publications strategy and approving specific items for publication (including but not limited to articles, presentations and press releases);

4.8.15 resolving any issues that could not be resolved by the JPT; and

4.8.16 taking all other significant management decisions relating to the Joint Research Programme.

4.9 Formation of JSC. The JSC shall consist of **[*]** members who are employees of Dynavax or AstraZeneca or their Affiliates, as applicable, with the requisite experience and seniority to enable them to make decisions on behalf of the Parties with respect to the Joint Research Programme, with equal numbers appointed by the respective Party, which shall include an Alliance Manager to be designated by each Party. The Alliance Managers shall each be responsible for supervising and coordinating the activities of the JPT and JSC pursuant to the Joint Research Programme. The Alliance Managers shall serve as the primary contacts for the Parties on all matters related to the Joint Research Programme. Notwithstanding the foregoing, each Party shall continue to be responsible for performing the activities undertaken by it under the Joint Research Programme. Each Party shall have the right to replace its respective JSC representatives upon written notice to the other Party, provided that any such substitute representative shall be an employee of such Party or its Affiliates and shall have substantially the equivalent experience and seniority as the representative that such person replaces. Representatives of each Party other than the members of the JSC may attend JSC meetings at the invitation of either Party with the prior approval of the other Party, which approval shall not be unreasonably withheld. From time to time, the JSC may establish subcommittees or subordinate

committees (that may or may not include members of the JSC itself) to oversee particular projects or activities, and such subcommittees or subordinate committees shall be constituted and shall operate as the JSC agrees.

4.10 JSC Decision Making; Disputes. All decisions of the JSC made pursuant to this Agreement shall be made by unanimous consent of the Parties, with each Party having a single vote, irrespective of the number of representatives actually in attendance at a meeting. If for any reason the JSC cannot reach unanimity within **[** * **]** days following a JSC meeting at which a Party formally requests resolution of such matter, then except as set forth in Section 4.11, the matter shall be referred to and resolved in good faith by the **[** * **]** of AstraZeneca and the **[** * **]** of Dynavax. Any final decision mutually agreed to by the said senior managements of the Parties shall be in writing and shall be conclusive and binding on the Parties. If such resolution is unattainable by senior management within **[** * **]** days from the date the matter in dispute is first brought to the attention of the senior management of the Parties, the dispute shall be [*]; provided, however, that, if **[** * **]**, then **[** * **].**

4.11 JSC Decisions Requiring Consent. Any **[** * **]** shall require the unanimous consent of the JSC. If the JSC fails to reach unanimous consent regarding any such change to the Joint Research Programme, then **[** * **].** In addition, neither Party shall have any right to make any changes to the Joint Research Plan relating to the Research of Dynavax ISS and/or Collaboration ISS that would change the other Party's **[** * **],** without the consent of the other Party.

4.12 JSC Meetings. Unless otherwise agreed, the JSC shall meet at least quarterly and more frequently when required. The first JSC meeting will be held within ninety (90) days after the Effective Date and thereafter meetings will be held alternately at the offices of Dynavax and AstraZeneca unless the Parties agree on another location, or by teleconference or videoconference. A quorum of the JSC shall exist whenever there is present at a meeting each of the Alliance Managers or their respective designees. A JSC representative for AstraZeneca shall chair the first JSC meeting and thereafter a JSC representative of the Party which is hosting such JSC meeting at its offices, will chair such meeting. In addition, the JSC may act without a formal meeting by a written memorandum signed by the Alliance Managers. The JSC may also invite other personnel of the Parties to attend meetings of the JSC as appropriate

to the agenda for such meeting, after giving notice to the other Party. Whenever any action by the JSC is required hereunder during a time period in which the JSC is not scheduled to meet, either Alliance Manager shall have the right to call a special meeting or the Alliance Managers may cause the JSC to take the action without a meeting in the applicable time period. Any such additional meetings shall be held at places and on dates selected by the Alliance Managers. The JSC may by unanimous consent, amend or expand upon the foregoing procedures for its internal operations.

4.13 JSC Minutes. The JSC shall keep accurate minutes of its deliberations, which minutes shall record all proposed decisions and all actions recommended or taken, Joint Research Programme progress reports provided to the JSC pursuant to Section 5.1 , Collaboration Technology generated of interest in the Joint Research Programme and confirmation that Joint Research Programme Milestones have been reached. In particular, all Dynavax ISS and Collaboration ISS [*] selected and/or nominated during the Research Term and any Candidate Drug selected therefrom, shall be recorded in the minutes of the JSC. Drafts of minutes shall be delivered to the Alliance Managers within twenty (20) days after the respective meeting. The Parties, on an alternating basis, shall prepare and circulate the draft minutes. Draft minutes shall be edited by the Alliance Managers and shall be issued in final form only with the approval and agreement of the Alliance Managers of both Parties.

4.14 Dissolution of JSC. Following the expiration or termination of the Research Term, the JSC shall be dissolved and Dynavax shall provide AstraZeneca with consultation services as AstraZeneca may reasonably request for the continued Development and Commercialization of the Dynavax ISS and/or Collaboration ISS, the costs of which shall be managed in accordance with Section 8.9 below.

4.15 Advisory Board. Within thirty (30) days following the CD Nomination Date, the Parties shall establish an Advisory Board, which shall consist of [*] representatives of each Party and shall hold meetings no less frequently than every [*] months with the purpose of [*]. The Advisory Board shall [*] and its advice shall not in any way limit or restrict AstraZeneca's rights and obligations pursuant to Article 8. The Advisory Board shall meet in person at offices of Dynavax and AstraZeneca unless the Parties agree on another location, or by teleconference or videoconference. The Advisory Board may invite other personnel of the Parties to attend meetings of the Advisory Board as appropriate after giving notice to the other Party. The Advisory Board shall dissolve upon the termination or expiration of this Agreement.

4.16 Expenses . Dynavax and AstraZeneca each shall bear all expenses of its JPT, JSC and Advisory Board members related to such members' participation and attendance at the JPT, JSC and/or Advisory Board meetings.

4.17 Access to Information. Each Party shall provide the JPT and JSC and their authorized representatives with reasonable access during regular business hours to all records and documents of such Party that are specific to the Research or further Development of the Product or any Combination Product and that the JPT and JSC may reasonably require in order to perform their obligations hereunder, subject to any bona fide obligations of confidentiality to a Third Party.

4.18 Joint Research Programme Guidelines.

4.18.1 General. In all matters related to the Joint Research Programme, the Parties shall be guided by **[*],** to further the Joint Research Programme and **[*].**

4.18.2 Independence. Subject to the terms of this Agreement, the activities and resources of each Party shall be managed by such Party, acting independently and in its individual capacity. The relationship between Dynavax and AstraZeneca is that of independent contractors and neither Party shall have the power to bind or obligate the other Party in any manner, other than as is expressly set forth in this Agreement.

5 Reports

5.1 Joint Research Programme Progress Reports. No later than **[*]** business days prior to each quarterly JSC meeting, the JPT shall prepare quarterly update reports for presentation at JSC meetings. Such reports shall provide the JSC with a detailed written progress report in English containing information on the status of the Research efforts and any **[*]** and not previously reported to the JSC. The JSC may provide further instructions on the timing and content of these reports.

5.2 Copyrights. Copyrights to reports provided for hereunder shall be jointly owned by the Parties. Neither Party shall, without the prior written approval of the other Party, attribute to the other Party any abstract or interpretation of any such report for sales or promotion purposes.

5.3 AstraZeneca Reports . Upon dissolution of the JSC pursuant to Section 4.14, AstraZeneca shall provide the Advisory Board with **[*]** progress reports containing information on AstraZeneca Development and Commercialization activities in accordance with Sections 8.2 and 8.4.

6 Ownership and Grant of Rights

6.1 Ownership of Collaboration Technology. The Parties shall jointly own all Collaboration Technology, with each Party owning an undivided half interest in such Collaboration Technology and, subject to the exclusive licences granted herein, each having the right to use and to license such Collaboration Technology for any purpose without a duty of accounting or obtaining consent from the other Party. Each Party shall promptly disclose to the other Party in writing the development, making, conception or reduction to practice of any Collaboration Technology, and shall, and does hereby, assign, and shall cause its Affiliates and its and their employees and agents, as applicable, to so assign, to such other Party, without additional compensation, such right, title and interest in and to any Collaboration Technology, as is necessary to fully effect the joint ownership provided for in the foregoing sentence.

6.2 Licences to AstraZeneca. Subject to the terms of this Agreement, Dynavax hereby grants to AstraZeneca the following:

6.2.1 a worldwide, co-exclusive (with Dynavax), royalty-free license, without the right to sublicense except to Affiliates, under the Dynavax Technology solely to perform AstraZeneca's portion of the Research obligations under this Agreement with respect to any Dynavax ISS, Collaboration ISS, CD, Product and Combination Product in the Field and in the Territory; and

6.2.2 a worldwide, royalty bearing license, with the right to sublicense as set forth in Section 6.6, under the Dynavax Technology and Dynavax's rights and interest in the Collaboration Technology, to make, have made, use, offer for sale, sell and import the Product, and/or Combination Product(s) in the Field and in the Territory. The foregoing license shall be exclusive (even as to Dynavax) except that AstraZeneca hereby acknowledges that Dynavax reserves the right to **[*].** In the event that **[*].** If Dynavax **[*].**

Notwithstanding the above licences, it is noted that AstraZeneca shall have no right to make, have made, use, offer for sale, sell and import the CDs or any products incorporating such CDs, outside of the Field in the Territory.

The Parties acknowledge that, at any time after the First Commercial Sale of the Product or a Combination Product, such Product or Combination Product may be used by end users outside the Field. The Parties agree that such use shall not be deemed a breach by AstraZeneca of this Agreement, provided that AstraZeneca does not at any time, without the prior written consent of Dynavax, **[*].**

For the avoidance of doubt, the licenses granted to AstraZeneca in this Section 6.2 convey no rights with respect to any ISS Controlled by Dynavax other than the Dynavax ISS and Collaboration ISS.

6.3 Licence to Dynavax. Subject to the terms of this Agreement, AstraZeneca hereby grants to Dynavax a worldwide, fully paid, non-exclusive license, with the right to sublicense, under the AstraZeneca Technology and AstraZeneca's rights and interest in the Collaboration Technology solely to perform Dynavax's portion of the Research obligations under this Agreement with respect to Dynavax ISS and Collaboration ISS, CDs, Product and Combination Products in the Field and in the Territory. In addition, AstraZeneca hereby grants to Dynavax, a worldwide, non-exclusive, royalty-free license under the AstraZeneca Technology and AstraZeneca's rights and interest in the Collaboration Technology to make, have made, use, offer for sale, sell and import Reverted ISS and products comprising Reverted ISS (i) for use outside the Field during the Term, but, in accordance with the limitation specified in Section 6.5, excluding the right to make, have made, use, offer for sale, sell and import Reverted ISS and products comprising Reverted ISS for use in any Dynavax existing or future allergic respiratory disease programme, and (ii) for use inside and outside of the Field following the Term if this Agreement is terminated for any reason other than by AstraZeneca pursuant to Section 20.5 (breach by Dynavax or other similar events specified therein).

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

Notwithstanding the above licences, it is noted that during the Term, Dynavax shall have no right to make, have made, use, offer for sale, sell and import the CDs or any products incorporating such CDs, inside or outside of the Field in the Territory, unless and until such CD becomes a Reverted ISS.

6.4 Third Party Licences.

6.4.1 The Parties, through the JPT and JSC, as appropriate, shall discuss whether licences under Third Party technology are necessary for the Research. If during the Research Term, the JSC agrees that such a Third Party licence is necessary, then, AstraZeneca shall have the first right, but not the obligation, through counsel of its choosing, to negotiate and obtain a licence from such Third Party. If AstraZeneca incurs Third Party **[*]** licence expenses as a result of **[*]**, such costs relating to **[*]** may be recovered in part pursuant to the royalty-offset provision of Article 10 at AstraZeneca's sole discretion, and such costs relating to Third Parties **[*]** may be recovered in part pursuant to the royalty-offset provision of Article 10, subject to the prior written consent of Dynavax, **[*]**.

6.4.2 If, in the opinion of AstraZeneca, following discussion with the Advisory Board, the Development and/or Commercialization of the Dynavax ISS, Collaboration ISS, CDs, Product or Combination Products by AstraZeneca, its Affiliates or any of their Sublicensees infringes or misappropriates any Patent or any Intellectual Property Right of a Third Party in any country, such that AstraZeneca or any of its Affiliates, Distributors or Sublicensees cannot Develop and/or Commercialize the Dynavax ISS, Collaboration ISS, CDs or the Product or any Combination Product(s) in such country without infringing the Patent or intellectual property right of such Third Party (a "Triggering Event"), then, AstraZeneca shall have the first right, but not the obligation, through counsel of its choosing, to negotiate and obtain a licence from such Third Party as necessary for AstraZeneca and its Affiliates and Sublicensees to Develop and/or Commercialize the Dynavax ISS, Collaboration ISS, CDs, Product and any Combination Product(s) in such country. Nothing contained in this Section 6.4.2 shall be construed to limit AstraZeneca's right to terminate this Agreement pursuant to Section 20.3. If AstraZeneca incurs

Third Party **[*]** licence expenses as a result of **[*]**, such costs relating to **[*]** may be recovered in part pursuant to the royalty-offset provision of Article 10 at AstraZeneca's sole discretion and such costs relating to Third Parties **[*]** may be recovered in part pursuant to the royalty-offset provision of Article 10, subject to the prior written consent of Dynavax, **[*]**.

6.5 Exclusivity.

6.5.1 During the Term, each Party and its respective Affiliates shall not, directly or indirectly, by itself or with any Third Party, conduct research on, develop or commercialize in the Field any ISS other than the selection, Research, Development and Commercialization of Dynavax ISS and/or Collaboration ISS and/or CDs and/or Product and/or Combination Products in the Field pursuant to this Agreement.

6.5.2 Dynavax acknowledge that as a necessary pre-requisite of AstraZeneca being able to benefit from the licence rights granted pursuant to Section 6.2, it is appropriate and acceptable for Dynavax and its Affiliates to refrain from conducting research on, developing, commercialising, making, having made, using, offering for sale, selling and importing the Reverted ISS in the treatment of human patients who have Asthma, COPD, and/or respiratory allergies. Accordingly for such time as AstraZeneca is Researching, Developing or Commercialising a Dynavax ISS, Collaboration ISS, CD, Product or Combination Product pursuant to this Agreement, Dynavax and its Affiliates shall not, by themselves or with any Third Party, utilise any of the Reverted ISS within any existing or future Asthma, COPD, and/or respiratory allergy research, development and commercialisation programme.

6.5.3 The Parties acknowledge that all restrictions contained in this Section 6.5 are reasonable, valid and necessary for the adequate protection of the Product or any Combination Product(s) and that neither AstraZeneca nor Dynavax would have entered into this Agreement with out the protection afforded it by this Section 6.5.

6.5.4 AstraZeneca's exclusive position granted by Section 6.2 shall expire with respect to the Product and each separate Combination Product, on a country-

by-country basis, on the date when AstraZeneca's obligation to pay royalties with respect to such Product or Combination Product (as appropriate) expires. Upon expiry of AstraZeneca's exclusive position with respect to the Product or any Combination Product in a country, AstraZeneca's licence with respect to such Product or Combination Product in such country shall become non-exclusive, fully paid-up, perpetual and irrevocable and the Net Sales of such Product or Combination Product in such country shall be excluded from the royalty calculations in Article 10 (including the thresholds and ceilings). AstraZeneca and its Affiliates and Sublicensees shall be allowed to continue Developing and Commercializing such Product or Combination Product and using all related Patents, Know-How and Information in connection therewith on a **[*]** basis in such country with **[*]**.

6.5.5 During the Term, in line with Dynavax's representation and warranty in

Section 18.1.6, Dynavax and/or any of its Affiliates covenant:

(a) not, anywhere in the world, to institute or prosecute (or in any way aid any Third Party in instituting or prosecuting), at law or in equity, any claim, demand, action or cause of action for damages, costs, expenses or compensation, or for an enjoinment, injunction, or any other equitable remedy, against AstraZeneca, its Affiliates, Sublicensees, suppliers, Distributors, vendors or customers alleging the infringement by AstraZeneca in its Development and Commercialization in accordance with this Agreement of Dynavax ISS, Collaboration Technology, CDs, or Products or Combination Product(s), of any Patent that claims an invention that is based on, derived from or otherwise relates to the Collaboration Technology or the Background Technology of a Party and is Controlled by Dynavax or its Affiliates;

(b) not, anywhere in the world, to grant any rights or licences to any Third Party which are contrary to or inconsistent with the rights and licences granted to AstraZeneca and its Affiliates pursuant to this Agreement; and

(c) notwithstanding Dynavax's representation and warranty in Section 18.1.6, in the event of any inadvertent grant of rights or licences to any

Third Party which are, or subsequently become, contrary to or inconsistent with the rights and licences granted to AstraZeneca and its Affiliates pursuant to this Agreement, to **[*]**, with the aim of ensuring that, **[*]**, the rights and licences accorded to AstraZeneca supersede any conflicting rights and licences of Third Parties. Dynavax shall also offer full cooperation to allow AstraZeneca to **[*]**.

6.6 Sublicences. AstraZeneca shall have the right to grant sublicences, through multiple tiers of sublicensees, under the licences granted in Section 6.2.1 and 6.2.2, to (a) its Affiliates and (b) to any other Person, provided, however, that AstraZeneca shall first obtain the written consent of Dynavax before granting a sublicence under the licences granted in Section 6.2 for the Research, Development or Commercialization of Dynavax ISS, Collaboration ISS, CDs, the Product or any Combination Product(s) in **[*]**, except for sublicences limited to **[*]**. Where AstraZeneca grants a sublicense to a Person, which is not an Affiliate of AstraZeneca, and such Person is not a Distributor, that Person shall be a **"Sublicensee"** for purposes of this Agreement. AstraZeneca shall use Commercially Reasonable Efforts to ensure that all Persons to which it grants sublicences comply with all terms and conditions of this Agreement. In all countries outside of the Major Markets, AstraZeneca shall give written notice to Dynavax promptly following each sublicence granted hereunder, identifying the Sublicensee and the rights granted.

6.7 Distributors. AstraZeneca shall have the right, in its sole discretion, to appoint its Affiliates, and AstraZeneca and its Affiliates shall have the right, in their sole discretion, to appoint any other Persons, to distribute, market and sell the Product or any Combination Products (with or without packaging rights) in circumstances where the Person purchases its requirements of Product or Combination Products from AstraZeneca or its Affiliates but does not otherwise make any royalty or other payment to AstraZeneca with respect to its intellectual property rights. In the event that AstraZeneca or its Affiliates so appoint a Person and such Person is not an Affiliate of AstraZeneca, that Person shall be a **"Distributor"** for purposes of this Agreement. The term "packaging rights" in this Section 6.7 shall mean the right for the Distributor to **[*]**.

Except with the consent of Dynavax, **[*]**, AstraZeneca, its Affiliates and Sublicensees shall not sell Product or Combination product in unfinished form (in that it requires further filling or finishing) in any country of the **[*]**.

6.8 Confirmatory Patent Licences. Dynavax shall if requested to do so by AstraZeneca immediately enter into confirmatory licence agreements in the form or substantially the form set out in Exhibit F for purposes of recording the licences granted under this Agreement with such Patent Offices in the Territory as AstraZeneca considers appropriate. Until the execution of any such confirmatory licences, so far as may be legally possible, Dynavax and AstraZeneca shall have the same rights in respect of the licensed Patents and be under the same obligations to each other in all respects as if the said confirmatory licences had been executed.

7 Research Funding

7.1 Funding. Each Party shall assume responsibility for its own costs and expenses for the Joint Research Programme with the sole exception that AstraZeneca shall provide funding to Dynavax to support Dynavax's efforts under the Joint Research Programme. During each contract year of the Research Term, AstraZeneca shall pay Dynavax an amount equal to the FTE Rate multiplied by the number of FTEs set forth in Section 3.4 for such year.

7.2 Invoices; Reconciliation.

7.2.1 Each funding amount set forth in Section 7.1 above shall be paid to Dynavax **[*]**. AstraZeneca shall make its first such payment within **[*]** days of the Effective Date (subject to receipt by AstraZeneca of an invoice in respect of such payment) and each subsequent payment on the **[*]** of each contract quarter during the Research Term (subject to receipt by AstraZeneca of an invoice in respect of each such payment).

7.2.2 In addition to the advance payment set forth in Section 7.2.1, and subject to the JSC's approval of any subcontractor or major outsourcing agreement other than those Persons listed on Exhibit D hereto, any external costs or expenses incurred by Dynavax in connection with its performance of its obligations under the Joint Research Programme and not already included within the FTE Rate, shall be separately invoiced to AstraZeneca and reimbursed on a pass-

through basis. Dynavax shall submit such invoice within [*] days after the end of the relevant quarter in which such pass- through expenses were incurred. AstraZeneca shall reimburse such expense within [*] days after the date of receipt by AstraZeneca of the invoice.

7.2.3 Within [*] Business Days after the end of each contract quarter during the Research Term, Dynavax shall report to AstraZeneca Dynavax's actual FTEs involved in the Research during such quarter. Within [*] days after AstraZeneca's receipt of such report, the JSC shall direct the remittance between the Parties of an amount to effectuate the difference between the advance payment made by AstraZeneca and the actual Dynavax FTEs involved in the research during the applicable quarter. Any such payment shall be made, in any event, within [*] days of the date that the JSC directs the remittance.

7.3 Records Retention; Audit.

7.3.1 Dynavax shall keep or cause to be kept accurate records or books of account in accordance with applicable generally accepted accounting principles that, in reasonable detail, fairly reflect the reimbursable Joint Research Programme expenses. Such books and records shall be maintained by Dynavax for at least [*] years following the end of the calendar year to which they pertain.

7.3.2 Upon the written request of AstraZeneca, Dynavax shall permit a certified public accountant or a person possessing similar professional status and associated with an independent accounting firm reasonably acceptable to the Parties to inspect during regular business hours and no more than once a year and going back no more than [*] years after receipt of the respective invoice and report pursuant to Section 7.2, all or any part of Dynavax's records and books necessary to verify such invoices and reports. The accounting firm shall enter into appropriate obligations with Dynavax to treat all information it receives during its inspection in confidence. The accounting firm shall disclose to Dynavax and AstraZeneca only whether such invoices and reports are correct and details concerning any discrepancies, but no other information shall be disclosed to AstraZeneca. The charges of the accounting firm shall be paid by AstraZeneca, except that if the reimbursable Joint Research

Programme expenses have been overstated by more than [*], the charges shall be paid by Dynavax. Any overpayment of Joint Research Programme by AstraZeneca revealed by an examination and review shall be fully-creditable against future Joint Research Programme expenses under Section 7.2 and AstraZeneca shall submit any underpayment so discovered within [*] days of receipt by AstraZeneca of an invoice in respect of such underpayment.

7.4 Projected Cost Reports. During the Research Term and within [*] days after the end of each calendar quarter, Dynavax shall provide the JSC with an [*] projected cost report including: FTE hours, reimbursable Joint Research Programme expenses and expected milestone payments by quarter.

8 Development and Commercialization

8.1 Overview. Subject to Dynavax's option to co-promote Product in accordance with Section 8.5, AstraZeneca shall have sole responsibility for all Development and Commercialization of CDs, Product and Combination Products, including the clinical and commercial manufacturing and supply thereof.

8.2 Development of Product. AstraZeneca shall be responsible for carrying out the Development of any CDs, the Product and any Combination Product. The Development of any CD, the Product or Combination Product(s) shall each be governed by a development plan that describes the proposed overall program of Development (the "Development Plan"). AstraZeneca shall have the sole right and responsibility for preparing and maintaining the Development Plan for the CD, Product or any Combination Product; provided, however, AstraZeneca shall consider in good faith the comments of Dynavax as provided through the JSC and/or Advisory Board as further described below. The Development Plan shall include general information on AstraZeneca's development activities in the previous twelve (12) months and a summary of the activities planned in the next twelve (12) months, together with a timetable of planned and actual submissions for Health Registration Approvals. AstraZeneca shall promptly deliver a summary copy of each Development Plan, and updates, to the members of the JSC, and after its disbandment, to the Advisory Board. AstraZeneca shall use Commercially Reasonable Efforts to conduct any Development of Product or any Combination Product in compliance in all material aspects with the requirements under all Applicable Laws

8.3 Regulatory Affairs and Information Exchange

8.3.1 With regard to sharing of Regulatory Documentation and Regulatory Filings, each Party shall provide the other Party with reasonable access, and shall provide the other Party with sufficient rights to reference and use in association with exercising its rights and performing its obligations under this Agreement, all of its, its Affiliates' and their respective suppliers' Regulatory Documents, Regulatory Filings, and Health Registration Approvals for Product or any Combination Product.

8.3.2 Consistent with the Development Plan, but subject to the remainder of this Section 8.3, AstraZeneca shall be responsible for developing Regulatory Documentation and preparing and submitting Regulatory Filings, seeking Health Registration Approvals, and maintaining Health Registration Approvals for Product or any Combination Product, including preparing all reports necessary as part of an IND, NDA, MAA, DMF, BLA or other necessary filing reasonably required for Health Registration Approval.

8.3.3 Dynavax, at its sole cost and expense (but subject to the reimbursement provisions of this Section 8.3.3), will provide AstraZeneca with all reasonable assistance required in order to transfer the Know-How to AstraZeneca in a timely manner or assist AstraZeneca with respect to the Development and Commercialization of the Dynavax ISS and/or Collaboration ISS and/or CD and/or the Product and/or the Combination Product(s) (if any). AstraZeneca shall reimburse, pursuant to Section 7.1, all reasonable, AstraZeneca pre-approved, FTE costs incurred by Dynavax in connection with such technical assistance, and shall reimburse any and all external costs incurred by Dynavax in connection with such technical assistance pursuant to Section 7.2. Without prejudice to the generality of the foregoing, if visits of Dynavax's representatives to AstraZeneca's facilities are reasonably requested by AstraZeneca for purposes of transferring the Dynavax KnowHow to AstraZeneca or for purposes of AstraZeneca acquiring expertise on the practical application of the Dynavax Know-How or assisting on issues arising

during such Development or Commercialization, Dynavax will send appropriate representatives to AstraZeneca's facilities, provided that AstraZeneca shall reimburse Dynavax, in addition to the FTE costs of such Dynavax representatives, at the FTE Rate defined in Section 1.52, for its reasonable and verifiable expenses of travel and accommodations for such representatives.

8.3.4 AstraZeneca shall keep Dynavax informed on an ongoing basis regarding the schedule and process for Regulatory Documents and Regulatory Filings. AstraZeneca shall prepare all responses to correspondence that are received from any regulatory agency relating to any Regulatory Documents and any Regulatory Filing. If and when a Health Registration Approval is obtained in any country of the Territory, AstraZeneca shall promptly inform Dynavax of such Health Registration Approval.

8.3.5 In conducting any Development activities hereunder, AstraZeneca shall use Commercially Reasonable Efforts to ensure that its employees, agents, clinical institutions and clinical investigators comply with all FDA statutory and regulatory requirements with respect to the CDs, Product or any Combination Product, including but not limited to: the Federal Food, Drug and Cosmetic Act, as amended (FFDCA), the Public Health Service Act (PHSA), regulatory provisions regarding protection of human subjects, financial disclosure by clinical investigators, Institutional Review Boards (IRB), GCP, GLP, IND regulations, and any conditions imposed by a reviewing IRB or the FDA.

8.4 Commercialization of Product and Combination Product. Subject to Dynavax's option to co-promote Product with AstraZeneca in the United States of America, AstraZeneca shall have exclusive rights throughout the Territory over the Commercialization of all Product and Combination Product(s), including the supply of Product or Combination Product for use in all such Commercialization activities. AstraZeneca shall keep Dynavax informed about all of AstraZeneca's efforts to Commercialize the Product or any Combination Product, including summaries of AstraZeneca's, and its Sublicensees' marketing plans, as updated, and significant developments in the Commercialization of the Product and/or Combination Product(s).

8.5 Dynavax Option to Co-Promote in the United States AstraZeneca recognises that Dynavax wishes to increase its capability for developing and commercialising pharmaceutical products in the future. Following written notice from AstraZeneca that it has decided to [*], Dynavax shall have an option to negotiate with AstraZeneca terms under which Dynavax may co-promote the Product in the United States of America. In order for Dynavax to be eligible to co-promote Product in the United States of America, Dynavax must [*].

In the event that Dynavax **[*]** and wishes to commence discussions with AstraZeneca to co-promote Product in the United States of America, Dynavax shall notify AstraZeneca in writing. The Parties shall meet to discuss such co-promotion in the United States of America within **[*]** days after receipt by AstraZeneca of such notification.

The Parties shall thereafter **[*]**. If the Parties agree on such terms, the Parties shall seek to enter into a written co-promotion agreement including mechanisms for participation and reward commensurate with the contributions of each Party. **[*]**. In no event shall Dynavax's promotional effort exceed **[*]** of the total estimated promotional effort in the United States of America without AstraZeneca's prior written agreement.

In the event that the Parties enter into a written co-promotion agreement pursuant to this Section 8.5, Dynavax shall be legally responsible and liable for the actions, omissions and conduct of all members of its sales force and other employees providing services thereunder. Dynavax shall ensure that all such persons comply with:

8.5.1 all federal, state and local laws, and the rules, regulations, guidelines and guidances of all agencies, in effect from time to time applicable to the marketing, promotion, distribution and sale of the product in the United States of America, including, but not limited to (a) the American Medical Association Guidelines on Gifts to Physicians from Industry and (b) the PhRMA Code on Interactions with Healthcare Professionals; and

8.5.2 AstraZeneca's US business policies, as amended from time to time by AstraZeneca.

8.6 Pricing, Price Approvals and Product Distribution. AstraZeneca shall determine the overall pricing strategy for the Product or any Combination Product in the Territory. AstraZeneca shall obtain such Product and/or Combination Product pricing approvals as may be required and arrange for distribution of the Product or Combination Product in each applicable country in the Territory.

8.7 Sales and Inventory. AstraZeneca shall be responsible for booking sales, stocking inventory for itself and its Sublicensees, distributing Product and Collaboration Product(s) and collecting accounts receivable.

8.8 Advertising and Education.

8.8.1 AstraZeneca shall be responsible for developing or having developed advertising and education materials for the Product or any Combination Product(s). AstraZeneca shall have the authority to select Trademarks for the Product and Combination Products and shall own all Trademarks in accordance with Article 17.

8.8.2 If any written and visual promotion or educational materials for the Product or any Combination Product refer to or identify either of the Parties, AstraZeneca and Dynavax shall both be presented and described. Any such materials that specifically refer to any Party shall be subject to prior review and comment by that Party. All labelling, documentary information, promotional material and oral presentations (where practical) regarding the detailing and promoting of the Product or any Combination Product shall display the names and logos of each Party.

8.8.3 Notwithstanding the foregoing, Sections 8.8.1 and 8.8.2 are subject to the requirements of Applicable Laws of each country in which such materials are presented or in which such the Product or any such Combination Product is Commercialized.

8.9 Development and Commercialization Costs. Except as otherwise specified in Section 8.5 above, AstraZeneca shall be responsible for all costs associated with the Development and Commercialization of any CDs, the Product or any Combination Product. If AstraZeneca requests Dynavax's assistance with certain tasks related to the Development or Commercialization of any CDs, the Product or any Combination

Product, and Dynavax agrees to assist, then AstraZeneca shall reimburse Dynavax for any reasonable costs Dynavax should incur associated with such tasks. Within [*] days after the end of each calendar quarter, Dynavax shall submit to AstraZeneca an accounting of all costs Dynavax incurs pursuant to the Development or Commercialization of any CDs, the Product or any Combination Product during that quarter. Such summary may include an allocation of time spent by Dynavax personnel in conducting such Development or Commercialization activities, that shall be reimbursed at the FTE Rate. AstraZeneca shall on a quarterly basis, within [*] days after the end of each quarter, prepare and submit to Dynavax a reimbursement of the costs incurred by Dynavax, subject to receipt by AstraZeneca of an invoice in respect of such payment.

8.10 Diligence Obligations.

8.10.1 AstraZeneca shall use Commercially Reasonable Efforts to Develop and Commercialise the Lead CD or Product during the Term of this Agreement. Specifically, but not in limitation of the foregoing, AstraZeneca shall use Commercially Reasonable Efforts to achieve the following objectives (the **"Diligence Objectives"**):

(a) to fulfil AstraZeneca's Research obligations under the Joint Research Plan for any Dynavax ISS or Collaboration ISS according to timelines agreed upon by the JSC;

(b) if at any time AstraZeneca determines that it will cease Development of the Lead Candidate Drug or any Lead CD, then AstraZeneca shall choose another CD, or shall make a CD Nomination from the **[*]**, for Development within **[*]** months of such determination;

(c) to endeavour to complete the Development of the Lead CD or Product in a way which **[*]**; and

(d) to endeavour to **[*]**;

provided, however, that such obligations are expressly conditioned upon Dynavax and its Affiliates performing their respective obligations hereunder and such obligations of AstraZeneca shall be delayed or suspended as long as

any such condition exists. Further, Dynavax acknowledges and agrees that nothing in this Section 8.10 is intended, or shall be construed, to require AstraZeneca to Develop or Commercialise a specific CD as the Lead CD or Product, or a specific Combination Product, if the Product does not proceed. In the event that AstraZeneca decides to discontinue the Development or Commercialization of any CD as the Lead CD or the Product in favour of another CD, or if it decides to discontinue the Development or Commercialization of the Product in favour of a Combination Product its obligations under this Section 8.10 shall cease with respect to such initial CD or the Product (as appropriate) in favour of such other CD or Combination Product. AstraZeneca shall perform its obligation under this Section 8.10 in good scientific manner and in compliance in all material respects with all Applicable Law. Upon satisfaction of its obligations under this Section 8.10, AstraZeneca shall be deemed to satisfy all diligence obligations owed to Dynavax hereunder, whether contractually or under Applicable Law, with respect to the Development or Commercialization of the CDs, Product or a Combination Product, and shall have no other obligation, express or implied, to Develop or Commercialize any CD, Product or any Combination Product.

8.10.2 Dynavax shall use Commercially Reasonable Efforts to fulfil Dynavax's Research obligations under the Joint Research Plan for any Dynavax ISS or Collaboration ISS according to timelines agreed upon by the JSC.

8.10.3 It is recognised that the process of drug development is uncertain and the [*].

8.11 Breach of Diligence Obligations.

8.11.1 Notification and Meeting. If at any time Dynavax has a reasonable basis to believe that AstraZeneca is in material breach of its material obligations under Section 8.10, then Dynavax shall so notify AstraZeneca, specifying the basis for its belief, and the Parties shall meet within [*] days after such notice to discuss in good faith Dynavax's concerns and AstraZeneca's Development and Commercialisation plans with respect to any CD, the Product or any Combination Product.

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

8.11.2 Right of Arbitration. If, after such good faith discussions, (a) AstraZeneca is in material breach of its material obligations under Section 8.10, and (b) AstraZeneca does not take reasonable steps designed to rectify such breach within [*] days of meeting with Dynavax pursuant to Section 8.11.1 (or, if such failure cannot be rectified within such [*]-day period, if AstraZeneca does not commence actions to rectify such breach within such period and thereafter diligently pursue such actions) the Parties agree to meet and discuss in good faith a possible resolution thereof, which good faith efforts shall include at least one in-person meeting between representatives of each Party having decision-making authority (subject only to Board of Directors' or equivalent approval, if required). All such discussions under this Section 8.11.2 shall be confidential and shall be treated as compromise and settlement negotiations for purposes of applicable rules of evidence. If the matter is not resolved within [*] days following the request for discussions, Dynavax may thereafter commence a special arbitration pursuant to Section 24.13 in respect of such matter.

8.12 Reversion; Abandonment.

8.12.1 In the event that AstraZeneca abandons or puts the development of a Lead CD on hold for a consecutive period of time exceeding [*] months or an aggregate period of time exceeding [*] months in any [*]-month period, and during such period [*], then AstraZeneca shall notify Dynavax in writing. Dynavax may (but is not so obligated), within [*] months from receipt of such notification, provide written notice to AstraZeneca requesting that such Lead CD become a Reverted ISS and cease to be a Collaboration ISS or CD. Upon receipt of such notice by AstraZeneca, such CD shall be included in the license grant under Section 6.3.

For the avoidance of doubt, the foregoing time periods shall not include any period of time during which AstraZeneca is [*]. AstraZeneca shall have the right to satisfy its obligations under this Section 8.12 through one or more Affiliates, Sublicensees or subcontractors.

8.12.2 In the event that Dynavax fails to make a written request to AstraZeneca pursuant to Section 8.12.1, within [*] months following the date on which

Dynavax received from AstraZeneca the written notice referred to in the first sentence of such Section 8.12.1, AstraZeneca shall be under no further obligation to grant Dynavax any license or other rights to such CD or to make any such above said assignments and AstraZeneca shall retain its exclusive rights and ownership to such CD pursuant to Article 6.

8.12.3 In the event of any abandonment of a CD by AstraZeneca and reversion to Dynavax pursuant to Section 8.12.1, AstraZeneca shall, [*]; provided, however, that Dynavax's above said rights shall be subject to [*].

9 Milestone Payments

9.1 Total Obligation. Unless the Parties agree in writing otherwise, the access fee, milestone payments and royalty payments payable by AstraZeneca to Dynavax pursuant to this Article 9 and Article 10, taken together with the funding to be provided by AstraZeneca to Dynavax pursuant to Article 7, represent all of AstraZeneca's financial obligations to Dynavax hereunder and Dynavax shall not be entitled to any additional compensation or remuneration from AstraZeneca under this Agreement.

9.2 Access Fee. AstraZeneca shall pay to Dynavax within ten (10) days following the Effective Date an access fee of ten million US Dollars ($10,000,000) subject to receipt by AstraZeneca of an invoice in respect of such payment. Such access fee shall be non-refundable and non-creditable against future milestones and royalties payable pursuant to this Agreement.

9.3 Joint Research Programme Milestones. AstraZeneca shall pay to Dynavax a milestone payment in respect of each of the following Research and Development events in the particular amounts specified below (in each case subject to receipt of an invoice in respect of each such payment) no later than [*] days following the occurrence of such milestone event as reasonably determined by AstraZeneca or the JSC as applicable (whether such milestone event is achieved by AstraZeneca, its Affiliate or any of their respective Distributors or Sublicensees) (each a "Joint Research Programme Milestone"). AstraZeneca shall make the corresponding non-refundable and non-creditable payments to Dynavax, as follows:

9.3.1 four million five hundred thousand US Dollars ($4,500,000) within **[*]** days following the first CD Nomination Date;

[*]

9.4 Development Milestones. AstraZeneca shall pay to Dynavax a milestone payment in respect of each of the following events in the particular amounts specified below (in each case subject to receipt of an invoice in respect of each such payment) no later than [*] days following the first occurrence of such milestone event (whether such milestone event is achieved by AstraZeneca, its Affiliate or any of their respective Sublicensees) (each a **"Development Milestone"**), AstraZeneca shall make the corresponding non-refundable and non-creditable payments to Dynavax, as follows:

[*]

9.5 Milestone Payments. Each of the payments in relation to the Joint Research Programme Milestones set forth under Section 9.3 and Development Milestones set forth under Section 9.4 shall be made by AstraZeneca no more than once under this Agreement, collectively together with the Access Fee set forth in Section 9.2, amounting to an aggregate maximum amount of **[*],** irrespective of the number of CDs that have achieved the milestone events set forth in Sections 9.3 and 9.4 or the number of countries or Major Markets in which such milestone events have been achieved. AstraZeneca shall promptly notify Dynavax in writing of the achievement of any milestone; provided that AstraZeneca's failure to do so shall not be construed as the non-occurrence of any milestone event.

10 Royalty Payments and Other Payment-Related Provisions

10.1 Royalties . AstraZeneca shall pay Dynavax a running royalty on Net Sales where the royalty rate is determined based on the aggregate amount of Annual Net Sales for the Product and any Combination Product in the Territory occurring in the particular calendar year as follows:

10.1.1 **[*]** on the portion of Annual Net Sales not exceeding **[*];** and

10.1.2 **[*]** on the portion of Annual Net Sales exceeding **[*]** but not exceeding **[*];** and

10.1.3 **[*]** on the portion of Annual Net Sales exceeding **[*]** but not exceeding **[*]**; and

10.1.4 **[*]** on the portion of Annual Net Sales exceeding **[*]**.

As used herein, "**Annual Net Sales**" means the Net Sales made during a given calendar year.

The calculation of royalties under this Section 10.1 shall be conducted as aggregate Net Sales for all Product and Combination Products for the applicable calendar year.

10.2 Combination Products. With respect to Combination Products, the Annual Net Sales used for the calculation of the royalties under Section 10.1 shall be determined as follows:

$\frac{A}{A - B} \times$ Net Sales of the Combination Product, where:

A = Standard sales price of the Product, containing the same amount of Dynavax ISS or Collaboration ISS as the sole active ingredient as the Combination Product in question, in the given country.

B = standard sales price of the readyforsale form of a product containing the same amount of the other therapeutically active ingredient(s) that is contained in the Combination Product in question, in the given country.

In the event, however, that if, in a specific country, (a) the other therapeutically active ingredient(s) in such Combination Product are not sold separately in such country, Net Sales shall be adjusted by multiplying actual Net Sales of such Combination Product by the fraction A/C, where C is the standard sales price in such country of such Combination Product, and (b) if the Product containing such Dynavax ISS or Collaboration ISS is not sold separately, Net Sales shall be calculated by multiplying actual Net Sales of such Combination Product by the fraction C-B/C, where B is the standard sales price in such country of the other therapeutically active ingredient(s) in the Combination Product and C is the standard sales price in such country of the Combination Product. The standard sales price for the Product containing such Dynavax ISS or Collaboration ISS and for each other active ingredient shall be for a

quantity comparable to that used in such Combination Product and of the same class, purity and potency. If, in a specific country, both a Product containing the Dynavax ISS or or Collaboration ISS and a product containing the other active ingredients in such Combination Product are not sold separately, a market price for such Product and such other active ingredients shall be negotiated by the Parties in good faith based upon the costs, overhead and profit as are then incurred for such Combination Product and all products then being made and marketed by AstraZeneca and having an ascertainable market price that are comparable to such Product or such other active ingredients, as applicable. If, in a specific country, the foregoing calculations do not fairly represent the value of the various active ingredients included in a Combination Product, the allocation of Net Sales for such Combination Product shall be negotiated by the Parties in good faith.

10.3 Sublicensees.

10.3.1 In the event that an AstraZeneca Sublicensee sells Product or a Combination Product to Third Parties in the **[*],** such sales shall **[*].**

10.3.2 For all sales of Product or Combination Product by a Sublicensee to Third Parties outside of the **[*],** any fees, milestones and/or royalty income which AstraZeneca shall receive from the Sublicensees shall **[*].**

10.3.3 In the event that AstraZeneca sublicenses the sale of Product or a Combination Product to Third Parties outside of the **[*],** the sublicense shall be obliged to **[*].**

10.4 Royalty Stacking.

10.4.1 For the Product or any Combination Product(s) sold by AstraZeneca or its Affiliates to Third Parties (including Distributors), where the sum of royalty payments (excluding any royalty on delivery devices) owed by AstraZeneca and its Affiliates to Dynavax and any Third Parties in any calendar year exceeds **[*]** of Net Sales for a given Product or Combination Product for that period, the royalty rate payable to Dynavax shall be reduced **[*]** such that the aggregate royalty rate payable by AstraZeneca on the Product or Combination Product, **[*],** would equal **[*]** of Net Sales thereof.

10.4.2 In the case of the Product or a Combination Product which is developed or commercialised by a Sublicensee of AstraZeneca, where AstraZeneca is legally required to make payment to one or more Third Parties in order that such Sublicensee may develop or commercialise such Product or Combination Product, then if the sum of royalty payments (excluding any royalty payments on delivery devices) owed by AstraZeneca and its Affiliates to Dynavax and any such Third Parties exceeds **[*]** of all amounts received by AstraZeneca from such Sublicensee that are subject to the royalty obligations of AstraZeneca under Section 10.1 the royalty rate under Section 10.1 shall be reduced **[*]** such that the aggregate amount payable by AstraZeneca to Dynavax and any such Third Parties with respect to such Product or Combination Product, **[*],** would equal **[*]** of the amounts received by AstraZeneca from such Sublicensee that are subject to the royalty obligations of AstraZeneca under Section 10.1.

10.5 **[*]** Royalty and **[*].**

10.5.1 Subject to Section 10.3.3, Dynavax shall pay any and all royalties arising from the sale of the Product or any Combination Product(s) owed the **[*]** under the **[*].**

10.5.2 (a) To the extent that royalties payable by AstraZeneca under this Article 10, taken as a whole, **[*],** Dynavax shall **[*]** as a result of [*]. To the extent payments to Third Parties in respect of matters described in the previous sentence **[*],** then AstraZeneca shall **[*].**

(b) In the event of a cross-license with a Third Party which includes payments described in Section 10.5.2(a), the Party or Parties which is/are responsible for the payment under Section 10.5.2(a) shall **[*].**

(c) In the event either Party makes payments to a Third Party in respect of the matters described in paragraph (a) of this Section 10.5.2 prior to the commencement of Net Sales, such payment obligation shall **[*].**

10.6 Reduction of Royalty .

10.6.1 Competition. In the event that, in a country in the Territory, generic competition with respect to the Product or a Combination Product occurs by a product or products having **[*]** (each such product, a "Competing Product"), and such Competing Product has any sales in a Calendar Quarter in such country, then for the purposes of calculating the royalties of such Product or Combination Product under Section 10.1, then, subject to Section 10.7, **[*]** of the Net Sales in such country shall be disregarded. The calculation of the royalty reduction under this Section 10.6.1 shall be conducted separately for each Product or Combination Product.

If the number of units sold of a Competing Product represents **[*]** of the aggregate number of units sold of all products in the relevant [*] class to which the Product or Collaboration Product has been allocated, including the Product and any Combination Product, in a country in the Territory as reported by [* **]** or any comparable reporting agency in a Calendar Year, then AstraZeneca shall have the right, but not the obligation, to [* **]**.

10.6.2 Compulsory Licences. In the event that a court or a governmental agency of competent jurisdiction requires AstraZeneca or an AstraZeneca Affiliate or Sublicensee to grant a compulsory licence to a Third Party permitting such Third Party to make and sell the Product or any Combination Products in a country in the Territory, then for the purposes of calculating the royalties of the Product or Combination Product under Section 10.1, [*] of the Net Sales in the country in such country shall be disregarded. The calculation of the royalty reduction under this Section 10.6.2 shall be conducted separately for each Product or Combination Product. In any country where the royalty reduction of Section 10.6.1 or 10.6.2 is in effect, there shall not be any further royalty reduction pursuant to this Section 10.6.2.

10.6.3 No Valid Claim. In the event that, and in such case from and after the date on which, a Product or Combination Product is Developed and/or Commercialized in a country and is not covered by a Valid Claim or other governmental grant of exclusivity (for example, but without limitation, orphan

drug status, Chinese monitoring period exclusivity, or any other governmental grant of exclusivity of equivalent effect) in such country, then for the purposes of calculating the royalties of such Product or Combination Product under Section 10.1, **[*]** of the Net Sales in such country shall be disregarded.

10.7 Royalty Floor. Notwithstanding anything to the contrary in this Agreement except for Section 10.6.2, during the Royalty Term, in no event shall the net royalty rate received by Dynavax from the sale of Products be reduced to less than **[*]** of Net Sales (as determined before any reductions provided for in this Article 10 other than Section 10.6.2) for the period of time when Dynavax makes royalty payments to [*] as set forth in Section 10.5, or to less than **[*]** of such Net Sales thereafter. Dynavax shall promptly notify AstraZeneca in writing when payments to **[*]** as set forth in Section 10.5 are no longer being made.

10.8 Royalty Term. AstraZeneca's obligation to pay royalties shall commence, on a country-by-country basis, with respect to each separate Product or Combination Product, on the date of First Commercial Sale of such Product or Combination Product in such country. The obligation shall expire, on a country-by-country basis, with respect to each separate Product or Combination Product on the later to occur of (a) the **[*]** anniversary of the First Commercial Sale of the first Product in such country and (b) the expiration date in such country of the last to expire of any issued Collaboration Patent or Dynavax Patent that includes at least one Valid Claim covering the sale of such separate Product or Combination Product in such country (such period, the **"Royalty Term"**).

Upon termination of the royalty obligations of AstraZeneca under this Section 10.8, with respect to a Product or Combination Product in any country, the licence grants to AstraZeneca in Section 6.2 shall become fully paid-up, perpetual and irrevocable with respect to such country and the Net Sales of such Product or Combination Product in such country shall be excluded from the royalty calculations in this Article 10 (including the thresholds and ceilings).

10.9 Sales Subject to Royalties. Sales between AstraZeneca, its Affiliates and Sublicensees shall not be subject to royalties hereunder. Royalties shall be calculated on AstraZeneca's and its Affiliates' and Sublicensees' sale of the Product or Combination Products to a Third Party (including Distributors). Royalties shall be

payable only once for any given batch of the Product or Combination Products. For purposes of determining Net Sales, the Product or Combination Product, as appropriate, shall be deemed to be sold when invoiced and a "sale" shall not include, and no royalties shall be payable on, transfers by AstraZeneca, its Affiliates or Sublicensees of free samples of Products, Combination Products or clinical trial materials containing Dynavax ISS and/or Collaboration ISS or other transfers or dispositions for charitable, promotional, pre-clinical, clinical, manufacturing, testing or qualification, regulatory or governmental purposes.

10.10 Royalty Payments. The royalties shall be calculated quarterly as of the last day of March, June, September and December respectively, for the calendar quarter ending on that date. AstraZeneca shall pay the royalties in conjunction with the delivery of a written report to Dynavax within **[*]** days after the end of each calendar quarter that shows, with respect to each country and the Product or Combination Product(s), the sales volume and Net Sales, by country, of each Product or Combination Product sold during such calendar quarter.

10.11 Mode of Payment. All payments set forth in this Article 10 shall be remitted by wire transfer to the following bank account of Dynavax or such other account as Dynavax may designate in writing to AstraZeneca:

[*]

10.12 Currency. All payments required under this Agreement shall be made in U.S. Dollars. For the purpose of computing the Net Sales of Product or Combination Products sold in a currency other than U.S. Dollars, such currency shall be converted from local currency to U.S. Dollars by AstraZeneca in accordance with the rates of exchange for the relevant month for converting such other currency into U.S. Dollars used by AstraZeneca's normal internal accounting systems, which are independently audited on an annual basis.

10.13 Interest. Unless any payment potentially due to Dynavax under this Agreement is in dispute, and in such circumstances from the date upon which such dispute is resolved, if AstraZeneca fails to make any payment due to Dynavax under this Agreement, then interest shall accrue on a daily basis at a rate equal to the thirty (30) day U.S. dollar **LIBOR** rate effective for the date that payment was due, as published by *The Wall Street Journal* (Western edition) plus **[*]**.

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10.14 Records Retention; Audit.

10.14.1 AstraZeneca shall keep or cause to be kept accurate records or books of account in accordance with applicable generally accepted accounting principles showing the information that is necessary for the accurate determination of the royalties due hereunder with respect to the sale of such Product or Combination Product.

10.14.2 Upon the written request of Dynavax, AstraZeneca shall permit a certified public accountant or a person possessing similar professional status and associated with an independent accounting firm acceptable to the Parties to inspect during regular business hours and no more than once a year and going back no more than **[*]** years preceding the current year, all or any part of AstraZeneca's records and books necessary to check the accuracy of the royalties paid. The accounting firm shall enter into appropriate obligations with AstraZeneca to treat all information it receives during its inspection in confidence. The accounting firm shall disclose to Dynavax and AstraZeneca only whether the royalty reports are correct and details concerning any discrepancies, but no other information shall be disclosed to Dynavax. The charges of the accounting firm shall be paid by Dynavax, except that if the royalties have been understated by more than **[*]**, the charges shall be paid by AstraZeneca. AstraZeneca shall promptly pay to Dynavax the amount of any underpayment of royalties revealed by an examination and review. Any overpayment of royalties by AstraZeneca revealed by an examination and review shall be fully-creditable against future royalty payments under Sections 10.1.

11 Taxes

11.1 General. The royalties, milestones and other amounts payable by AstraZeneca to Dynavax pursuant to this Agreement (**"Payments"**) shall not be reduced on account of any taxes unless required by Applicable Law. Dynavax alone shall be responsible for paying any and all taxes (other than withholding taxes required by Applicable Law

to be paid by AstraZeneca) levied on account of, or measured in whole or in part by reference to, any Payments it receives. AstraZeneca shall deduct or withhold from the Payments any taxes that it is required by Applicable Law to deduct or withhold. Notwithstanding the foregoing, if Dynavax is entitled under any applicable tax treaty to a reduction of the rate of, or the elimination of, any applicable withholding tax, it may deliver to AstraZeneca or the appropriate governmental authority (with the assistance of AstraZeneca to the extent that this is reasonably required and is expressly requested in writing) the prescribed forms necessary to reduce the applicable rate of withholding or to relieve AstraZeneca of its obligation to withhold tax, and AstraZeneca shall apply the reduced rate of withholding, or dispense with withholding, as the case may be, provided that AstraZeneca has received evidence, in a form satisfactory to AstraZeneca, of Dynavax's delivery of all applicable forms (and, if necessary, its receipt of appropriate governmental authorization) at least **[*]** days prior to the time that the Payments are due. If, in accordance with the foregoing, AstraZeneca withholds any amount, it shall pay to Dynavax the balance when due, make timely payment to the proper taxing authority of the withheld amount, and send to Dynavax proof of such payment within **[*]** days following that payment. For purposes of this Agreement, the stated amount of the Payments payable by AstraZeneca includes any sales tax that Dynavax may be required to collect.

11.2 Indirect Taxes. Notwithstanding anything contained in Section 11.1 or this Section 11.2 shall apply with respect to Indirect Taxes. All Payments are exclusive of Indirect Taxes. If any Indirect Taxes is chargeable in respect of any Payments, AstraZeneca shall pay Indirect Taxes at the applicable rate in respect of any such Payments following the receipt of an Indirect Taxes invoice in the appropriate form issued by Dynavax in respect of those Payments, such Indirect Taxes to be payable on the due date of the payment of the Payments to which such Indirect Taxes relate.

11.3 Customs Duties. The Parties shall co-operate in accordance with Applicable Laws to ensure where permissible no import duties are paid on imported clinical product. Where import duties are payable, the Parties shall co-operate to ensure that the Party responsible for shipping as identified in the Joint Research Plan values the clinical product in accordance with Applicable Laws and minimises where permissible any such duties and any related import taxes that are not reclaimable from the relevant authorities.

12 Manufacture and Supply.

12.1 Preclinical Supply. Dynavax shall be responsible (at the expense of AstraZeneca), through either internal production capabilities or Third Party manufacturers approved by the JSC, for the manufacture **[*]** of preclinical Dynavax ISS or Collaboration ISS for use in the Joint Research Programme through the Primary Screening Phase and Secondary Screening Phase for any such Dynavax ISS or Collaboration ISS. AstraZeneca shall be solely responsible for all costs and expenses related to the manufacture and supply of preclinical Dynavax ISS or Collaboration ISS for use in the Joint Research Programme (other than those costs set forth in Section 3.5.4 as included in the FTE Rate) and shall reimburse Dynavax any reasonable costs or expenses it incurs therefor. AstraZeneca shall be responsible for, or shall procure the final formulation and packaging, including any inhalation device, of the Product or any Combination Product for preclinical use.

12.2 Clinical and Commercial Supply. AstraZeneca shall be responsible for, or shall procure, the manufacture of toxicology, clinical and commercial materials, including without limitation any Candidate Drug, Product or Combination Product in the Territory and for all costs associated therewith. AstraZeneca shall use Commercially Reasonable Efforts to make necessary filings to obtain, or cause a Third Party manufacturer to obtain, Health Registration Approval for the manufacture of Candidate Drugs or Product or any Combination Product(s) in the Territory.

12.3 Manufacturing Know-How Transfer. Dynavax shall transfer to AstraZeneca any manufacturing technology, material and data sufficient to enable AstraZeneca (or its nominee) to produce and supply toxicology, clinical and commercial Candidate Drug for use in the Product or a Combination Product. Dynavax shall provide reasonable assistance to AstraZeneca to effect such transfers in an orderly fashion and to enable AstraZeneca to begin manufacturing and supplying toxicology, clinical and commercial supply of Candidate Drug for use in the Product or a Combination Product.

13 Confidentiality and Non-Disclosure

13.1 General Obligations.

13.1.1 At all times during the term of this Agreement and for a period of **[*]** years following termination or expiration hereof, each Party (the **"Receiving Party"**) shall, and shall cause its officers, directors, employees, agents, Affiliates, Distributors and Sublicensees to, keep confidential and not publish or otherwise disclose and not use, directly or indirectly, for any purpose, any Confidential Information provided to it by the other Party (the **"Disclosing Party"**), except to the extent such disclosure or use is expressly permitted by the terms of this Agreement or is reasonably necessary for the performance of this Agreement.

13.1.2 Dynavax recognises that by reason of AstraZeneca's status as an exclusive licensee pursuant to certain grants under Article 6, AstraZeneca has an interest in Dynavax's retention in confidence of certain information of Dynavax. Accordingly, until the expiration of AstraZeneca's exclusive position with respect to any CD, the Product or a Combination Product under this Agreement, Dynavax shall, and shall cause its Affiliates and their respective officers, directors, employees and agents to, keep confidential, and not publish or otherwise disclose, and not use directly or indirectly for any purpose that would cause such publication or disclosure, any information relating to (a) the CD, the Product or a Combination Product, including the Dynavax ISS or Collaboration ISS therein, or (b) the Research, Development and/or Commercialization of such Product or Combination Product, including the Development Plans therefor (collectively the **"AstraZeneca Information"**); except to the extent (a) the AstraZeneca Information is in the public domain through no fault of Dynavax, its Affiliates or any of their respective officers, directors, employees and agents, (b) such disclosure or use would be permitted under Section 13.2, or (c) such disclosure or use is otherwise expressly permitted by the terms of this Agreement or is reasonably necessary for the performance of this Agreement. For clarification, the disclosure by Dynavax to AstraZeneca or by AstraZeneca to Dynavax of AstraZeneca Information shall not cause such information to cease to be subject to the confidentiality provisions of this Section 13.1.

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Notwithstanding the foregoing, in the event Dynavax obtains an exclusive license under the AstraZeneca Technology in accordance with Section 20.7.3, Dynavax shall be relieved of the foregoing obligations and AstraZeneca, instead of Dynavax, shall, and shall cause its Affiliates and their respective officers, directors, employees and agents to, keep confidential, and not publish or otherwise disclose, and not use directly or indirectly for any purpose that would cause such publication or disclosure, any information relating to the AstraZeneca Information, except to the extent (a) the AstraZeneca Information is in the public domain through no fault of AstraZeneca, its Affiliates or any of their respective officers, directors, employees and agents, (b) such disclosure or use would be permitted under Section 13.2, or (c) such disclosure or use is otherwise expressly permitted by the terms of this Agreement or is reasonably necessary for the performance of this Agreement.

13.2 Permitted Disclosures. Each Party may disclose Confidential Information to the extent that such disclosure is:

13.2.1 made in response to a valid order of a court of competent jurisdiction or other competent authority; provided, however, that the Receiving Party shall first have given notice to the Disclosing Party (if feasible) and given the Disclosing Party a reasonable opportunity to quash any such order or obtain a protective order requiring that the Confidential Information and documents that are the subject of such order be held in confidence by such court or authority or, if disclosed, be used only for the purpose for which the order was issued; and provided further that if such order is not quashed or a protective order is not obtained, the Confidential Information disclosed in response to such court or governmental order shall be limited to that information that is legally required to be disclosed in response to such court or governmental order;

13.2.2 made to a Regulatory Authority as may be necessary or useful in connection with any filing, application or request for a Health Registration Approval; provided, however, that reasonable measures shall be taken to assure confidential treatment of such information, to the extent such protection is available;

13.2.3 made by the Receiving Party to a patent authority as may be necessary or useful for purposes of obtaining or enforcing a Patent (consistent with the terms and conditions of Article 14); provided, however, that reasonable measures shall be taken to assure confidential treatment of such information, to the extent such protection is available;

13.2.4 otherwise required by law, provided, however, that the Receiving Party shall (a) provide the Disclosing Party with reasonable advance notice of and an opportunity to comment on any such required disclosure, (b) if requested by the Disclosing Party, seek confidential treatment with respect to any such disclosure to the extent available, and (c) use good faith efforts to incorporate the comments of the Disclosing Party in any such disclosure or request for confidential treatment; or

13.2.5 made by the Receiving Party to its Affiliates, Distributors, Sublicensees, employees, consultants, or agents as may be necessary or useful in connection with the Research, Development, or Commercialization of any CD, the Product or Combination Product(s) as contemplated by this Agreement, or otherwise in the exercise of its rights with respect to Collaboration Know-How, including subcontracting or sublicensing transactions in connection therewith; provided prior to disclosure by the Receiving Party to each of the foregoing Persons must be bound by similar obligations of confidentiality and non-use at least equivalent in scope to those set forth in this Article 13.

Notwithstanding the foregoing, in the event that either Party is required by Applicable Law or the requirements of a national securities exchange or another similar regulatory body to disclose this Agreement, in whole or in part, the Parties shall reasonably agree on a redacted version of this Agreement as necessary to protect the Confidential Information of the Parties prior to making such disclosure.

13.3 Exclusions. Notwithstanding the foregoing, Confidential Information shall not include any information that:

13.3.1 is or hereafter becomes part of the public domain by public use, publication, general knowledge or the like through no wrongful act, fault or negligence on the part of the Receiving Party;

13.3.2 can be demonstrated by documentation or other competent proof to have been in the Receiving Party's or its Affiliates' possession prior to disclosure by the Disclosing Party;

13.3.3 is subsequently received by the Receiving Party or its Affiliates from a Third Party who is lawfully in possession thereof and not bound by any obligation of confidentiality with respect to the said information;

13.3.4 has been published by the Disclosing Party; or

13.3.5 is independently developed by or for the Receiving Party or its Affiliates without the application or use of the Disclosing Party's Confidential Information.

Specific aspects or details of Confidential Information shall not be deemed to be within the public domain or in the possession of the Receiving Party merely because the Confidential Information is embraced by more general information in the public domain or in the possession of the Receiving Party. Further, any combination of Confidential Information shall not be considered in the public domain or in the possession of the Receiving Party merely because individual elements of such Confidential Information are in the public domain or in the possession of the Receiving Party unless the combination and its principles are in the public domain or in the possession of the Receiving Party.

13.4 Confidentiality of Agreement. The Parties acknowledge that the terms of this Agreement shall be treated as Confidential Information of both Parties. Such terms may be disclosed by a Party to individuals or entities covered by 13.2.5 above, each of whom prior to disclosure must be bound by similar obligations of confidentiality and non-use at least equivalent in scope to those set forth in this Article 13. Disclosure of the terms of this Agreement (but not other Confidential Information received from the other Party) may also be made, under binders of confidentiality and non-use at least equivalent in scope to those set forth in this Article 13, to actual or potential bankers, lenders, investors and acquirors of the disclosing Party.

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

13.5 Publications and Presentations. The Parties acknowledge that scientific publications must be strictly monitored to prevent any adverse effect from premature publication of results of the research and Development activities hereunder. Accordingly, during the Research Term neither Party shall publish, present or otherwise disclose any material related to the Joint Research Programme or the Development or Commercialization of the CDs or the Product or any Combination Product(s) without the prior written consent of the JSC and after the Research Term Dynavax shall not publish, present or otherwise disclose any material related to the Joint Research Programme or the Development or Commercialization of the CDs or the Product or any Combination Product(s) without the prior written consent of AstraZeneca. Each Party's contribution to such results shall be duly recognised in such publications. For clarity, nothing in this Section 13.5 shall limit Dynavax's right to publish or present, during the Research Term, the results of any studies carried out by or on behalf of Dynavax prior to the Effective Date. Each Party agrees to provide the other Party the opportunity to review any proposed abstracts, manuscripts or presentations (including verbal presentations) that relate to any Dynavax ISS or Collaboration ISS or Product or Combination Product studied under the Agreement at least **[*]** days prior to their intended submission for publication and agrees, upon request, not to submit any such abstract or manuscript for publication until the other Party is given a reasonable period of time (resulting in a total of no more than **[*]** days from the provision of such abstracts, manuscripts or presentation by one Party to the other for review until such Party's submission of such abstracts, manuscripts or presentation for publication) to secure patent protection for any material in such publication which it believes to be patentable. Both Parties understand that a reasonable commercial strategy may require delay of publication of information or filing of patent applications. The Parties agree to review and decide whether to delay the publication and filing of patent applications under certain circumstances. Neither Party shall have the right to publish or present Confidential Information of the other Party which is subject to Section 13.1. With respect to any publication or presentation made by AstraZeneca pursuant to this Section 13.5, but without limiting anything set forth in Section 8.8.2 above, AstraZeneca shall give meaningful mention to Dynavax's participation and contribution to the Collaboration and shall specifically mention the use of Dynavax Technology in the Dynavax ISS, Collaboration ISS, CDs, Product and/or any Combination Product.

13.6 Use of Name/Publicity.

13.6.1 Neither Party shall mention or otherwise use the name, insignia, symbol, trademark, trade name or logotype of the other Party or its Affiliates in any publication, press release, promotional material or other form of publicity without the prior written consent of the other Party in each instance (which shall not be unreasonably withheld or delayed), except for those disclosures for which consent has previously been obtained or which have previously been disclosed. The restrictions imposed by this Section 13.6.1 shall not prohibit either Party from making any disclosure identifying the other Party that is required by Applicable Law or the requirements of a national securities exchange or another similar regulatory body, provided that any such disclosure shall be governed by this Article 13. Further, the restrictions imposed on each Party under this Section 13.6 are not intended, and shall not be construed, to prohibit a Party from identifying the other Party in its internal business communications, provided that any Confidential Information in such communications remains subject to this Article 13.

13.6.2 AstraZeneca and its Affiliates and Sublicensees shall have the right, with Dynavax's prior written consent, to use the name of Dynavax and its Affiliates to the extent necessary or useful in connection with the Development and Commercialization of Product or Combination Product as contemplated by this Agreement. Additionally, with respect to any public disclosure made by AstraZeneca pursuant to this Section 13.6.2, AstraZeneca shall give meaningful mention to Dynavax's participation and contribution to the Collaboration and shall specifically mention the use of Dynavax Technology in the Dynavax ISS, Collaboration ISS, CDs, Product and/or Combination Product, the mention in such disclosures to be approved in writing by Dynavax.

13.6.3 An initial press release pertaining to this transaction shall be issued by the Parties and shall be materially in the form attached as Exhibit E to this Agreement. Neither Party shall issue any other press release or make any

other public announcement or statement concerning this Agreement or the transactions covered by it without the prior written approval of the other Party, except that each Party (after consultation with counsel) may make such announcements and disclosures, if any, as may be required by Applicable Law or the requirements of a national securities exchange or another similar regulatory body, or in connection with a public offering of securities or any filing with the U.S. Securities and Exchange Commission or a foreign equivalent.

14 Patent Prosecution, Enforcement and Defence

14.1 Disclosure . Each Party shall promptly disclose to the other Party any invention discovered or reduced to practice pursuant to the Collaboration that it believes may be patentable.

14.2 Patent Prosecution and Maintenance.

14.2.1 Dynavax shall direct the filing, prosecution (including any interferences, reissue proceedings and re-examinations), oppositions and maintenance of all Dynavax Patents. Dynavax shall consult with AstraZeneca in connection with the continued prosecution and maintenance by Dynavax of the Dynavax Patents and **[*]**. Dynavax shall provide AstraZeneca with **[*]**. Dynavax shall bear one hundred percent (100%) of the costs and expenses of the Dynavax Patents. Dynavax shall not abandon any Dynavax Patents without at least **[*]** days prior notice to AstraZeneca. If Dynavax decides to abandon any Dynavax Patents, AstraZeneca shall have the option to continue the prosecution and maintenance of such patents and related applications at its expense.

14.2.2 AstraZeneca shall be the Party (the **"Prosecuting Party"**) responsible for or for procuring, the filing, prosecution (including any interferences, reissue proceedings and re-examinations), oppositions and maintenance of all Collaboration Patents. AstraZeneca shall consult with Dynavax in connection with the continued prosecution and maintenance by AstraZeneca of the Collaboration Patents and **[*]**. AstraZeneca shall provide Dynavax with **[*]**. AstraZeneca shall bear one hundred percent (100%) of the costs and

expenses of the Collaboration Patents. AstraZeneca shall promptly reimburse Dynavax for any costs or expenses that Dynavax incurs in connection with the prosecution and maintenance of the Collaboration Patents. AstraZeneca shall not abandon any such Collaboration Patents without at least **[*]** days prior notice to Dynavax. If AstraZeneca decides to abandon any such Collaboration Patents, Dynavax shall have the option to continue the prosecution and maintenance of such patents and related applications at its expense.

14.2.3 Where a patent application covers two or more Dynavax ISS and/or Collaboration ISS, at least one of which has a use in the Field and at least one of which has no use in the Field but a use outside of the Field, the prosecuting attorney will **[*]**.

14.2.4 Each Party shall cooperate with the other and take all reasonable additional actions and execute such agreements, instruments and documents as may be reasonably required to perfect the other's ownership interest in accordance with the intent of this Agreement including, without limitation, the execution of necessary and appropriate instruments of assignment to achieve such joint ownership as set forth in Section 14.1 and the provision, on a reasonable basis, of its employees, agents, consultants and independent contractors to the other Party (or to the other Party's authorized attorneys, agents or representatives), to the extent reasonably necessary to enable the prosecuting Party to undertake Patent prosecution for inventions arising out of the Collaboration, as provided in this Agreement.

14.3 Patent Term Restoration. The Parties shall cooperate with each other with respect to obtaining patent term restoration or supplemental protection certificates or their equivalents in any country in the Territory where applicable to Dynavax Patents and Collaboration Patents in respect of the Product or any Combination Product(s). In the event that elections with respect to obtaining such patent term restoration are to be made, AstraZeneca shall have the right to make the election and Dynavax agrees to abide by such election.

14.4 Enforcement of Patent Rights.

14.4.1 In the event that either Party becomes aware of a suspected infringement by a Third Party of any Dynavax Patent licensed to AstraZeneca under this Agreement, such Party shall notify the other Party promptly, and following such notification, the Parties shall confer. Other than in respect of any Dynavax Patent solely covering a CD, Dynavax shall have the right, but shall not be obligated, to bring an infringement action at its own expense, in its own name and entirely under its own direction and control. AstraZeneca, upon request of Dynavax, agrees to join in any such litigation at Dynavax's expense and to cooperate with Dynavax in connection with such litigation. Where Dynavax notifies AstraZeneca that it does not intend to take measures to remove such infringement, Dynavax may nevertheless be joined as a party to any infringement action that is pursued and shall retain the right to be heard in such proceedings and to defend the validity of the Patent asserted by AstraZeneca. With respect to any Dynavax Patent solely covering a CD or Product, AstraZeneca shall have the right, but shall not be obligated, to bring an infringement action at its own expense, in its own name and entirely under its own direction and control. Dynavax, upon request of AstraZeneca, agrees to join in any such litigation at AstraZeneca's expense and to cooperate with AstraZeneca in connection with such litigation. Where AstraZeneca notifies Dynavax that it does not intend to take measures to remove such infringement, AstraZeneca may nevertheless be joined as a party to any infringement action that is pursued and shall retain the right to be heard in such proceedings and to defend the validity of the Patent asserted by Dynavax.

14.4.2 In the event that either Party becomes aware of a suspected infringement of any Collaboration Patent, such Party shall notify the other Party promptly. Following such notification, the Parties shall confer. Other than in respect of any Collaboration Patent solely covering a Reverted ISS, AstraZeneca shall have the right, but shall not be obligated, to bring an infringement action or to defend such proceedings at its own expense, in its own name and entirely under its own direction and control. Dynavax, upon request of AstraZeneca, agrees to join in any such litigation at AstraZeneca's expense and to cooperate with AstraZeneca in connection with such litigation. Where AstraZeneca notifies Dynavax that it does not intend to take measures to remove such

infringement, AstraZeneca may nevertheless be joined as a party to any infringement action that is pursued and shall retain the right to be heard in such proceedings and to defend the validity of the Patent asserted by Dynavax. With respect to any Collaboration Patent solely covering a Reverted ISS, Dynavax shall have the right, but shall not be obligated, to bring an infringement action at its own expense, in its own name and entirely under its own direction and control. AstraZeneca, upon request of Dynavax, agrees to join in any such litigation at Dynavax's expense and to cooperate with Dynavax in connection with such litigation. Where Dynavax notifies AstraZeneca that it does not intend to take measures to remove such infringement, Dynavax may nevertheless be joined as a party to any infringement action that is pursued and shall retain the right to be heard in such proceedings and to defend the validity of the Patent asserted by AstraZeneca.

14.4.3 If the Party having the first right to prosecute any action described in Sections 14.4.1 or 14.4.2 fails to do so within (a) **[** * **]** days following notice of the alleged infringement or (b) **[** * **]** days before the time limit, if any, set forth in the appropriate laws and regulations for the filings of such actions, whichever comes first, then the other Party shall have the right, but not the obligation, to bring and control any such litigation at its own expense, in it own name and entirely under its own direction and control.

14.4.4 In the event either Party exercises the rights conferred in this Section 14.4 and recovers any damages or other sums in such action, suit or proceeding or in settlement thereof, such damages or other sums recovered shall first be applied to all out-of-pocket costs and expenses incurred by such Party in connection therewith, including reasonable attorneys fees. If after such reimbursement any funds shall remain from such damages or other sums recovered, such funds shall be retained by such Party that controlled the litigation.

14.5 Third Party Litigation. In the event of any actual or threatened suit against Dynavax, AstraZeneca or its Affiliates, Sublicensees, Distributors or customers alleging that the Development and/or Commercialization of CDs, Product or Combination Product, or

that the Development and/or Commercialization of a Collaboration Patent or the Background Technologies or any part thereof by or on behalf of AstraZeneca under this Agreement, infringes the Patent or other intellectual property rights of any Person (an **"Infringement Suit"**), the Party first becoming aware of such Infringement Suit shall promptly give written notice to the other Party. AstraZeneca shall have the first right, but not the obligation, through counsel of its choosing, to assume direction and control of the defence of claims arising therefrom (including the right to settle such claims at its sole discretion, subject to the provisions of this Section 14.5). If AstraZeneca notifies Dynavax in writing that it does not wish to assume such direction and control, Dynavax shall have the right, but not the obligation to, at its sole cost and expense, defend against such claims; provided, however, that Dynavax shall obtain the written consent of AstraZeneca prior to ceasing to defend, settling or otherwise disposing of such claims. Dynavax shall be entitled to be joined in any proceedings that may be brought against AstraZeneca in relation to Dynavax's Background Technology. If Dynavax does so elect to be joined, it shall pay its own costs and expenses in relation to the proceedings. AstraZeneca shall not make any admission or settle or otherwise compromise any proceedings brought against it in relation to Dynavax's Background Technology without first obtaining the written consent of Dynavax, which shall not be unreasonably withheld or delayed. Notwithstanding anything in the foregoing, each Party shall have the right to defend itself, using the counsel of its choice and at its own expense, any claims or law suits brought against it by any Third Party, and each Party shall have the right to settle any such claims or law suits on its own behalf, so long as such settlement does not provide for the payment of money by the other Party or performance obligations, or restrictions imposed upon, the other Party.

14.6 Invalidity or Unenforceability Defences or Actions.

14.6.1 In the event that a Third Party or Sublicensee asserts, as a defence or as a counterclaim in any Infringement Suit under Section 14.5, that any AstraZeneca Patent, Dynavax Patent or Collaboration Patent covering a Dynavax ISS or Collaboration ISS is invalid or unenforceable, then the Party pursuing such Infringement Suit shall promptly give written notice to the other Party. AstraZeneca shall have the first right, but not the obligation, through counsel of its choosing, to respond to such defence or defend against such

counterclaim (as applicable), including the right to settle or otherwise compromise such claim with respect to the AstraZeneca Patents and Collaboration Patents (other than in respect of any Collaboration Patent solely covering a Reverted ISS for which Dynavax shall have the first right), and Dynavax shall have the first right to do so with respect to Dynavax Patents (other than in respect of any Dynavax Patent solely covering a CD or Product for which AstraZeneca shall have the first right). If the Party having the first right notifies the other Party in writing that it does not wish to respond to such defence or defend against such counterclaim (as applicable), the other Party shall, at its sole cost and expense, have the right but not the obligation to respond to such defence or defend against such counterclaim (as applicable); provided, however, that such other Party shall obtain the written consent of the Party having the first right prior to ceasing to defend, settling or otherwise compromising such defence or counterclaim.

14.6.2 Similarly, if a Third Party or Sublicensee asserts, in a declaratory judgment action or similar action or claim filed by such Third Party or Sublicensee, that any AstraZeneca Patent, Dynavax Patent or Collaboration Patent covering the Dynavax ISS or Collaboration ISS is invalid or unenforceable, then the Party first becoming aware of such action or claim shall promptly give written notice to the other Party. AstraZeneca shall have the first right, but not the obligation, through counsel of its choosing, to defend against such action or claim, including the right to settle or otherwise compromise such claim with respect to AstraZeneca Patents and Collaboration Patents (other than in respect of any Collaboration Patent solely covering a Reverted ISS for which Dynavax shall have the first right), and Dynavax shall have the right to do so with respect to the Dynavax Patents (other than in respect of any Dynavax Patent solely covering a CD or Product for which AstraZeneca shall have the first right). If the Party having the first right to defend notifies the other Party in writing that it does not wish to respond to or defend against or settle such action or claim, the other Party shall, at its sole cost and expense, have the right but not the obligation to defend against such action or claim; provided, however, that such other Party shall obtain the written consent of the Party having the first right prior to ceasing to defend, settling or otherwise compromising of any such action or claim.

14.7 Cooperation. The Party other than the Party defending an action or claim pursuant to this Article 14 (the **"Non-Defending Party"**) will provide to the other Party (the **"Defending Party"**) all reasonable assistance requested by the Defending Party in connection with any action, claim or suit under Article 14, including allowing the Defending Party reasonable access to the Non-Defending Party's files and documents and to the Non-Defending Party's personnel who may have possession of relevant information, in all cases, during normal business hours and with reasonable prior notice. In particular the Non-Defending Party will promptly make available to the Defending Party, at the Defending Party's expense, all information in its possession or control that it is aware will assist the Defending Party in responding to any such action, claim or suit under Article 14.

14.8 Compliance with Third Party Licences. To the extent any provision in this Article 14 is inconsistent with the requirements in any licence agreement between a Party and any Third Party existing as of the Effective Date (including without limitation the license agreement between Dynavax and the Regents), including without limitation the rights and procedures for the filing, prosecution and maintenance of any Patents, the enforcement of any Patents, or the defense of any Third Party claims, the terms and conditions in such Third Party agreement(s) shall control.

14.9 Costs and Expenses. AstraZeneca shall have the right to **[*]**. Any royalties payable by AstraZeneca with respect to the manufacture, use or sale of Products may result in a reduction of royalties payable to Dynavax, pursuant to Section 10.4 and subject to Section 10.7. For the avoidance of doubt, where Indirect Taxes apply to milestones, royalties or costs, the Parties shall invoice these sums according to Applicable Law. Any amounts recovered by AstraZeneca in connection with any action, claim or suit under Article 14 shall first be applied to all out-of-pocket costs and expenses incurred by AstraZeneca in connection therewith, including reasonable attorneys fees and any such sums remaining shall be retained by AstraZeneca and shall be included in the calculation of Net Sales.

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15 Adverse Event Reporting

15.1 Overview. AstraZeneca shall maintain a record of all non-medical and medical Product-related or Combination Product-related complaints and reports of adverse events that it receives with respect to any Product or Combination Product as appropriate. AstraZeneca shall be responsible for reporting to Regulatory Authorities any adverse experiences and safety issues for each Product and Combination Product in compliance with the requirements of the U.S. Food, Drug and Cosmetic Act, 21 U.S.C. § 321 et seq., the regulations promulgated thereunder, and equivalent foreign laws, rules and regulations. Without limiting the foregoing, upon AstraZeneca's written request, Dynavax shall provide AstraZeneca with any information reasonably necessary for AstraZeneca to comply with all Applicable Law with respect to the Dynavax ISS, Collaboration ISS, the Product and Combination Product(s), as the case may be.

In the event that Dynavax exercises its option to co-promote the Product or any Combination Product(s) in the United States of America and the Parties enter into a written co-promotion agreement pursuant to Section 8.5, Dynavax shall, at least **[*]** months prior to commencing such co-promotion, develop appropriate adverse experience reporting procedures to record all non-medical and medical product-related complaints and reports of adverse events that it receives with respect to any Product or Combination Product(s).

15.2 Complaints. AstraZeneca shall maintain a record of any and all complaints it receives with respect to the Product and any Combination Products. Dynavax shall notify AstraZeneca in reasonable detail of any complaint received by it within **[*]** after the event, and in any event in sufficient time to allow AstraZeneca to comply with all Applicable Law in any country in which the Product or any Combination Product is being developed, marketed or sold.

16 Product Recall

16.1 Notification and Recall. In the event that any Governmental Authority issues or requests a recall or takes similar action in connection with a CD, the Product or any Combination Product, or in the event **[*]**, AstraZeneca shall promptly advise Dynavax thereof by telephone or facsimile. Following notification of a recall,

AstraZeneca shall decide and have control of whether to conduct a recall or market withdrawal (except in the case of a government-mandated recall) in the Territory and the manner in which any such recall or market withdrawal shall be conducted.

16.2 Recall Expenses. AstraZeneca shall bear the expenses of any recall of a CD, the Product or any Combination Product; provided, however, that Dynavax shall bear the expense of a recall to the extent that such recall resulted from Dynavax's breach of its obligations hereunder or Dynavax's negligence or willful misconduct or intentional omission. Such expenses of recall shall include expenses for notification, destruction and return of the recalled Product or Combination Product and any refund to customers of amounts paid for the recalled Product or Combination Product.

17 Trademarks.

AstraZeneca shall have the sole right to select the Trademarks for the marketing and sale of the Product and any Combination Product(s) in the Territory. AstraZeneca shall own such Trademarks and all rights and goodwill with respect thereto. AstraZeneca agrees not to adopt or use any trademarks, brand names, words, logos, symbols, letters, designs or marks that would be confusingly similar to Dynavax's trademarks. Dynavax shall not, and shall not permit its Affiliates to, use any trademark that is the same as or confusingly similar to, misleading or deceptive with respect to or that dilutes the Trademarks.

18 Representations and Warranties

18.1 Each Party represents and warrants to the other that:

18.1.1 it has full legal power to extend the rights and licences granted to the other under this Agreement and perform its obligations hereunder;

18.1.2 it has full power and authority to enter into this Agreement and has taken all necessary action on its part required to authorise the execution and delivery of this Agreement;

18.1.3 its employees and agents who are performing any activities under this Agreement or who have access to Confidential Information are bound, without request for additional compensation, to Articles 6, 13 and 14 of this Agreement;

18.1.4 neither it nor any researcher engaged by it, in any capacity, in the Joint Research Programme has been debarred or is subject to debarment or has otherwise been disqualified or suspended from performing scientific or clinical investigations or otherwise subjected to any restrictions or sanctions by the FDA or any other governmental or regulatory authority or professional body with respect to the performance of scientific or clinical investigations;

18.1.5 to the best of its Knowledge and belief, this Agreement is legally binding upon it and enforceable in accordance with its terms, and the execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material law or regulation of any Governmental Authority having jurisdiction over it;

18.1.6 it has not granted, and will not grant during the Term of the Agreement, any right to any Third Party that would conflict with the rights granted to the other Party hereunder;

18.1.7 it has (or will have at the time performance is due) maintained and will maintain and keep in full force and effect all agreements necessary to perform its obligations hereunder;

18.1.8 it is aware of no action, suit or inquiry or investigation instituted by any governmental agency that questions or threatens the validity of this Agreement; and

18.1.9 to the best of its Knowledge and belief, all necessary consents, approvals and authorizations of all governmental authorities and other Persons required to be obtained by such Party to enter into, or perform its obligations under, this Agreement have been obtained.

18.2 Dynavax further represents and warrants that as of the Effective date:

18.2.1 Dynavax is the sole and exclusive owner of the entire right, title and interest in the Dynavax Patents listed on Exhibit B(1) (the **"Owned Patents"**) and is

entitled to grant the licences specified herein. Such rights are not subject to any encumbrance, lien or claim of ownership by any Third Party. Dynavax is the sole and exclusive licensee of and Controls all right, title and interest in and to the Dynavax Patents listed in Exhibit B(2) (the **"In-licensed Patents"**) and is entitled to grant the licences specified herein. Such rights are not subject to any encumbrance, lien or claim of ownership by any Third Party, other than the Third Party from which such rights are licensed. True, complete and correct copies of the complete file wrapper and other documents and materials relating to the prosecution, defence, maintenance, validity and enforceability of the Owned Patents and the In-licensed Patents and all license and other agreements regarding the In-licensed Patents (the **"In-Licence Agreements"**), as amended to the date hereof, have been provided to AstraZeneca prior to the date first above written. The Owned Patents and the In-licensed Patents constitute all of the licensed Dynavax Patents as of the Effective Date. During the Term, Dynavax shall not encumber or diminish the rights granted to AstraZeneca hereunder with respect to the licensed Dynavax Patents, including by not **[*]**. Dynavax shall promptly provide AstraZeneca with notice of any alleged, threatened or actual breach of any In-Licence Agreement. As of the Effective Date, none of Dynavax, its Affiliates and, to the best of their Knowledge, any Third Party is in breach of any In-Licence Agreement;

18.2.2 All information and data provided by or on behalf of Dynavax to AstraZeneca on or before the Effective Date in contemplation of this Agreement was and is true and accurate in all material respects, and Dynavax has not failed to disclose, or cause to be disclosed, any information or data that would cause the information and data that has been disclosed to be individually, or in the aggregate, misleading in any material respect;

18.2.3 To Dynavax's Knowledge, the licensed Dynavax Patents are being diligently procured from the respective Patent Offices in accordance with all applicable laws and regulations. The licensed Dynavax Patents have been filed and maintained properly and correctly and all applicable fees have been paid on or before the due date for payment;

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18.2.4 As of the Effective Date, to the best of Dynavax's and its Affiliates' Knowledge, there is no actual infringement or threatened infringement of the licensed Dynavax Patents, licensed Dynavax Know-How or any regulatory documentation by any Person.

18.2.5 To the best of Dynavax's and its Affiliates' Knowledge and except as disclosed in Schedule 18.2.5, AstraZeneca's use Exploitation of the regulatory documentation, the licensed Dynavax Patents or licensed Dynavax Know-How hereunder will not infringe any Patent or other intellectual property or proprietary right of any Person;

18.2.6 The licensed Dynavax Patents and the licensed Dynavax Know-How existing as of the Effective Date are subsisting and to the best of Dynavax's knowledge are not invalid or unenforceable, in whole or in part, except to the patent properties identified in Schedule 18.2.6, as to which no representation is made. To Dynavax's Knowledge, the conception, development and reduction to practice of the regulatory documentation, the licensed Dynavax Patents and licensed Dynavax Know-How existing as of the Effective Date have not constituted or involved the misappropriation of trade secrets or other rights or property of any Person. There are no claims, judgments or settlements against or amounts with respect thereto owed by Dynavax relating to the regulatory documentation, the licensed Dynavax Patents or the licensed Dynavax Know-How. Except as disclosed in Schedule 18.2.6, no claim or litigation has been brought or threatened by any Person alleging, and Dynavax is not aware of any possible claim, whether or not asserted, that (a) the licensed Dynavax Patents or the licensed Dynavax Know-How are invalid or unenforceable or (b) the regulatory documentation, the licensed Dynavax Patents or the licensed Dynavax Know-How or the disclosing, copying, making, assigning, licensing or use of the regulatory documentation, the licensed Dynavax Patents or the licensed Dynavax Know-How, or products and services embodying the regulatory documentation, or the Dynavax ISS, Collaboration ISS, CDs, Product or Combination Product(s) violates, infringes or otherwise conflicts or interferes with any intellectual property or proprietary right of any Person;

18.2.7 Dynavax has not previously entered into any agreement, whether written or oral, with respect to, or otherwise assigned, transferred, licensed, conveyed or otherwise encumbered its right, title or interest in or to, the licensed Dynavax Patents, licensed Dynavax Know-How, regulatory documentation, or the Dynavax ISS and/or Collaboration ISS (including by granting any covenant not to sue with respect thereto) that is inconsistent with the rights and licences granted to AstraZeneca under this Agreement;

18.2.8 In respect of the pending United States patent applications included in the licensed Dynavax Patents, Dynavax has presented all relevant prior art of which it has Knowledge to the relevant Patent Examiner at the United States Patent and Trademark Office;

18.2.9 The licensed Dynavax Patents represent all Patents within Dynavax's Control as of the Effective Date that are directly related to, or are necessary, for the manufacture, use, offer for sale or sale of the Dynavax ISS and/or the Collaboration ISS;

18.2.10 Any licensed Dynavax Know-How has been kept confidential or has been disclosed to Third Parties only under terms of confidentiality;

18.2.11 Dynavax has made (and will make) available to AstraZeneca all regulatory documentation, licensed Dynavax Know-How and other Information in its possession or Control directly related to any Dynavax ISS and/or Collaboration ISS and all such regulatory documentation, licensed Dynavax Know-How and other Information are (and, if made available after the Effective Date, will be) true, complete and correct. As of the Effective Date, Dynavax has prepared, maintained and retained all regulatory documentation that is required to be maintained or reported pursuant to and in accordance with good laboratory and clinical practice and Applicable Law and all such information is true, complete and correct and what it purports to be;

18.2.12 Dynavax shall obtain from each of its Affiliates, Sublicensees, employees and agents, and from the employees and agents of its Affiliates, Sublicensees and agents, who are performing tests or studies, or are otherwise participating in the Research of the Dynavax ISS and/or Collaboration ISS, CDs, Product or

Combination Product or who otherwise have access to any AstraZeneca Confidential Information, rights to any and all Information that relate to the Dynavax ISS and/or Collaboration ISS, CDs, Product and Combination Product, such that AstraZeneca shall, by virtue of this Agreement, receive from Dynavax, without payments beyond those required by this Agreement, the licences and other rights granted to AstraZeneca hereunder.

18.3 Each Party shall comply with all laws, rules and regulations that govern the Party's performance under this Agreement, including all United States and multilateral export laws and regulations.

18.4 Nothing in this Agreement shall be construed as a warranty or representation by either Party of the success of the Joint Research Programme or the Joint Research Plan.

18.5 DISCLAIMER. OTHER THAN AS PROVIDED IN THIS ARTICLE 18, THE PARTIES DISCLAIM ANY AND ALL WARRANTIES OF ANY KIND WITH REGARD TO THE COLLABORATION MATERIALS OR THE BACKGROUND TECHNOLOGIES, WHETHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ANY WARRANTIES ARISING FROM COURSE OF DEALING OR USAGE OF TRADE.

19 Indemnification and Insurance

19.1 Indemnification of Dynavax. In addition to any other remedy available to Dynavax, AstraZeneca shall indemnify, defend and hold harmless Dynavax, its Affiliates and its and their respective directors, officers and employees in full and on demand, from and against any and all Losses incurred by them to the extent resulting from or arising out or in connection with any claims made or suits brought by a Third Party (collectively, **"Third Party Claims"**) against Dynavax, its Affiliates, Sublicensees, and their respective directors, officers or employees:

19.1.1 that arise or result from any intentional misconduct or gross negligence on the part of AstraZeneca, its Affiliates, Distributors, Sublicensees or agents in performing any activity contemplated by this Agreement, or the breach of any provision of this Agreement (including a breach of a warranty or Applicable Law) by AstraZeneca; or

19.1.2 that allege that the claimant has suffered personal injury or death as a result of use of the Product or Combination Product(s) or of AstraZeneca's Development, manufacture, use, handling, storage, sale, offer for sale, importation, or other disposition of the Product or any Combination Product(s),

except for any Losses for which Dynavax has an obligation to indemnify AstraZeneca and its Affiliates pursuant to Section 19.2.

19.2 Indemnification of AstraZeneca. In addition to any other remedy available to AstraZeneca, Dynavax shall indemnify, defend and hold harmless AstraZeneca, its Affiliates, Distributors, Sublicensees and its and their respective directors, officers and employees in full and on demand, from and against any and all Losses incurred by them to the extent resulting from or arising out of or in connection with any Third Party Claims against AstraZeneca, its Affiliates, Distributors or Sublicensees or their respective directors, officers or employees that:

19.2.1 arise or result from any intentional misconduct or gross negligence on the part of Dynavax, its Affiliates, Sublicensees or agents in performing any activity contemplated by this Agreement, or the breach of any provision of this Agreement by Dynavax;

19.2.2 allege that the claimant has suffered personal injury or death as a result of use of any product incorporating a Reverted ISS or reverted CD or of Dynavax's development, manufacture, use, handling, storage, sale, offer for sale, importation, or other disposition of such reverted ISS, product(s) or CD(s);

19.2.3 in the event that the Agreement is terminated and Dynavax continue to Develop and Commercialize any CD, Product or Combination Product directly or through a Third Party, allege that the claimant has suffered personal injury or death as a result of use of any CD, Product or Combination Product or of Dynavax's Development, manufacture, use, handling, storage, sale, offer for sale, importation, or other disposition of such Product or Combination Product(s), after the date of termination;

in all cases except for any Losses for which AstraZeneca has an obligation to indemnify Dynavax and its Affiliates pursuant to Section 19.1.

19.3 [*]

19.4 Notice of Claim . An Indemnified Party shall give the Indemnifying Party prompt written notice of any Losses or discovery of fact upon which such Indemnified Party intends to base a request for indemnification under Section 19.1, 19.2 or 19.3 (an **"Indemnification Claim Notice"**). In no event shall the Indemnifying Party be liable for any Loss that results from any delay in providing the Indemnification Claim Notice. Each Indemnification Claim Notice shall contain a description of the claim and the nature and amount of the Loss claimed (to the extent that the nature and amount of such Loss is known at such time). The Indemnified Party shall furnish promptly to the Indemnifying Party copies of all papers and official documents received in respect of any such Loss. For the avoidance of doubt, all indemnification claims in respect of a Party, its Affiliates or their respective directors, officers, employees and agents (each, an **"Indemnitee"**) shall be made solely by such Party to this Agreement.

19.5 Indemnification Procedures. The obligations of an Indemnifying Party under this Article 19 shall be governed by and contingent upon the following:

19.5.1 Assumption of Defence. At its option, the Indemnifying Party may assume the defence of any Third Party Claim by giving written notice to the Indemnified Party within [*] days after the Indemnifying Party's receipt of an Indemnification Claim Notice. The assumption of the defence of a Third Party Claim by the Indemnifying Party shall not be construed as an acknowledgement that the Indemnifying Party is liable to indemnify any Indemnitee in respect of the Third Party Claim, nor shall it constitute a waiver by the Indemnifying Party of any defences it may assert against any Indemnified Party's claim for indemnification.

19.5.2 Control of Defence. Upon the assumption of the defence of a Third Party Claim by the Indemnifying Party:

(e) the Indemnifying Party may appoint as lead counsel in the defence of the Third Party Claim any legal counsel selected by the Indemnifying Party, which shall be reasonably acceptable to the Indemnified Party, and

(f) Except as expressly provided in Section 19.5.3, the Indemnifying Party shall not be liable to the Indemnified Party for any legal expenses subsequently incurred by such Indemnified Party or any Indemnitee in connection with the analysis, defence or settlement of the Third Party Claim. In the event that it is ultimately determined that the Indemnifying Party is not obligated to indemnify, defend or hold harmless an Indemnitee from and against the Third Party Claim, the Indemnified Party shall reimburse the Indemnifying Party for any and all costs and expenses (including lawyers' fees and costs of suit) and any Loss incurred by the Indemnifying Party in its defence of the Third Party Claim with respect to such Indemnified Party or Indemnitee.

19.5.3 Right to Participate in Defence. Without limiting Section 19.5.1 or 19.5.2, any Indemnitee shall be entitled to participate in, but not control, the defence of a Third Party Claim and to retain counsel of its choice for such purpose; provided, however, that such retention shall be at the Indemnitee's own expense unless, (a) the Indemnifying Party has failed to assume the defence and retain counsel in accordance with Section 19.5.1 (in which case the Indemnified Party shall control the defence), or (b) the interests of the Indemnitee and the Indemnifying Party with respect to such Third Party Claim are sufficiently adverse to prohibit the representation by the same counsel of both parties under Applicable Law, ethical rules or equitable principles.

19.5.4 Settlement. With respect to all Losses, where the Indemnifying Party has assumed the defence of a Third Party Claim in accordance with Section 19.5.1, (i) the Indemnifying Party shall have authority to consent to the entry of any judgement, enter into any settlement or otherwise dispose of such Losses, provided that it obtains the prior written consent of the Indemnified Party, which consent shall not be unreasonably withheld or delayed, and (ii) no Indemnified Party or Indemnitee shall admit any liability with respect to, or settle, compromise or discharge, any such Third Party Claim without the prior written consent of the Indemnifying Party, which consent shall not be unreasonably withheld.

19.5.5 Cooperation. If the Indemnifying Party chooses to defend or prosecute any Third Party Claim, the Indemnified Party shall, and shall cause each other Indemnitee to, reasonably cooperate in the defence or prosecution thereof and shall furnish such records, information and testimony, provide such witnesses and attend such conferences, discovery proceedings, hearings, trials and appeals as may be reasonably requested in connection therewith. Such cooperation shall include access during normal business hours by the Indemnifying Party to, and reasonable retention by the Indemnified Party of, records and information that are reasonably relevant to such Third Party Claim, and making the Indemnified Party, the Indemnitees and its and their employees and agents available on a mutually convenient basis to provide additional information and explanation of any records or information provided, and the Indemnifying Party shall reimburse the Indemnified Party for all of its related reasonable out-of-pocket expenses.

19.5.6 Expenses. Except as expressly provided above, the reasonable and verifiable costs and expenses, including fees and disbursements of counsel, incurred by the Indemnified Party in connection with any claim shall be reimbursed on a quarterly basis by the Indemnifying Party, without prejudice to the Indemnifying Party's right to contest the Indemnified Party's right to indemnification and subject to refund in the event the Indemnifying Party is ultimately held not to be obligated to indemnify the Indemnified Party.

19.6 LIMITATION ON DAMAGES. EXCEPT IN CIRCUMSTANCES OF GROSS NEGLIGENCE OR INTENTIONAL MISCONDUCT BY A PARTY OR ITS AFFILIATES, OR WITH RESPECT TO THIRD PARTY CLAIMS UNDER SECTION 19.1 OR 19.2, NO PARTY OR ANY OF ITS AFFILIATES SHALL BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR LOST PROFITS, MILESTONES OR ROYALTIES, WHETHER IN CONTRACT, WARRANTY, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE, ARISING OUT OF (a) THE DEVELOPMENT, MANUFACTURE, USE OR SALE OF ANY PRODUCT OR COLLABORATION ISS DEVELOPED, MANUFACTURED OR MARKETED HEREUNDER, OR (b) ANY BREACH OF OR FAILURE TO PERFORM ANY OF THE PROVISIONS OF THIS AGREEMENT.

19.7 Insurance . Each Party shall have and maintain such type and amounts of liability insurance as is normal and customary in the pharmaceutical industry generally for Persons similarly situated, and shall upon request provide the other Party with a copy of its policies of insurance in that regard, along with any amendments and revisions thereto.

20 Term and Termination

20.1 Term . This Agreement shall become effective on the Effective Date and shall continue in full force and effect until the earlier of (i) expiration or termination of all payment obligations to Dynavax under this Agreement, or (ii) the effective date of termination pursuant to Sections 20.2, 20.3, 20.4, 20.5 or 20.6 or Section 21.4 below (the "Term"). The Term shall expire on the Product, or a Combination Product by Combination Product and country by country basis within the Territory.

20.2 Termination by AstraZeneca. AstraZeneca may terminate this Agreement if it determines, in its sole discretion, that it does not wish to pursue the Joint Research Programme or the further research, development, launch or sale of Dynavax ISS, Collaboration ISS, Candidate Drugs, Product or Combination Product(s) for any reason, including but not limited to, a scientific, technical, regulatory or commercial reasons, including [*]. AstraZeneca shall promptly notify Dynavax in writing of such determination and provide Dynavax with the pertinent information with respect thereto. Promptly following the receipt of such notice from AstraZeneca, the Parties shall discuss in more detail the reasons for such termination in good faith. Following such discussion, AstraZeneca may, at its sole discretion, terminate this Agreement in its entirety or with respect to the Product or one or more Combination Products or one or more countries in the Territory upon [*] days' prior written notice. Further, AstraZeneca shall have the right in its sole discretion to terminate this Agreement with respect to a country upon [*] days' prior written notice in the event that any Governmental Authority takes, fails to take, or reasonably could be expected to take or fail to take, any action with respect to the CD, Product or any Combination Product that could have an adverse effect on the Development and/or Commercialization of the CD, Product or Combination Product(s) in such country; provided, however, that AstraZeneca shall have the right to terminate this Agreement with respect to all of Europe if such country is in Europe and AstraZeneca shall have the right to terminate

this Agreement in its entirety if such country is or is in a Major Market. In the event of any such termination, if such termination occurs at a time when AstraZeneca is conducting or sponsoring a clinical trial of a CD, the Product or any Combination Product, AstraZeneca shall **[*]**.

20.3 Termination for Infringement of Third Party Rights.

20.3.1 If a Triggering Event occurs with respect to a country, AstraZeneca shall have the right upon written notice to Dynavax to terminate this Agreement with respect to such country if at any time (a) AstraZeneca is unable to obtain such a licence on commercially reasonable terms or (b) AstraZeneca in good faith believes that negotiation with a Third Party pursuant to Section 6.4 with respect to such country is not likely to result in a commercially reasonable agreement; provided, however, that AstraZeneca shall have the right to terminate this Agreement with respect to all of Europe if such country is in Europe and AstraZeneca shall have the right to terminate this Agreement in its entirety if such country is or is in a Major Market.

20.3.2 If a Third Party institutes an Infringement Suit with respect to a country, AstraZeneca shall have the right upon written notice to Dynavax to terminate this Agreement with respect to such country if **[*]**; provided, however, that AstraZeneca shall have the right to terminate this Agreement with respect to all of Europe if such country is in Europe and AstraZeneca shall have the right to terminate this Agreement in its entirety if such country is or is in a Major Market.

20.4 Termination by Dynavax for Lack of Diligence. In addition to the rights of termination in the event of material breach set forth in Section 20.5.1, Dynavax may terminate this Agreement, in its entirety or on a Dynavax ISS-by-Dynavax ISS, Collaboration ISS-by-Collaboration ISS, CD by CD, Product or Combination Product-by-Combination Product basis, upon **[*]** days advance written notice to AstraZeneca in the event that an arbitrator determines pursuant to Section 24.13 that AstraZeneca has failed to fulfil its Commercially Reasonable Efforts obligations under Section 8.10.

[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

20.5 Termination by Either Party. In addition to any other provision of this Agreement expressly providing for termination of this Agreement, this Agreement may be terminated immediately by either Party upon notice to the other Party:

20.5.1 if it believes that the other Party is in material breach of this Agreement, in which case the non-breaching Party may deliver notice of such material breach to the other Party, such notice to describe in detail the nature of such breach. The allegedly breaching Party shall have **[*]** days from receipt of such notice to cure such breach (or, if such default cannot be cured within such **[*]** day period, the breaching Party must commence actions to cure such default during such **[*]** day period and diligently continue such actions until the cure is effected). Any such termination shall become effective at the end of such **[*]** day period unless the breaching Party has cured any such breach or default prior to the expiration of such **[*]** day period (or, if such default is capable of being cured but cannot be cured within such **[*]** day period, the breaching Party has commenced and diligently continued actions to cure such default provided always that, in such instance, such cure must have occurred within **[*]** days after notice thereof was provided to the breaching Party by the non-breaching Party to remedy such default);

20.5.2 if such other Party ceases or threatens to cease to carry on the whole or substantially the whole of its business or that part of its business to which this Agreement relates;

20.5.3 if such other Party shall file in any court or agency, pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an the appointment of a receiver or trustee of such other Party or of its assets, or if the other Party proposes a written agreement of composition or extension of its debts, or if the other Party shall be served with an involuntary petition against it, filed in any insolvency proceeding, or if the other Party shall propose or be a Party to any dissolution or liquidation, or if the other Party shall make an assignment for the benefit of its creditors;

20.5.4 if any encumbrancer takes possession of any material part of the assets of another Party; or

20.5.5 if any distress, execution or other such process is levied or enforced upon or against any of the material assets of the other Party.

It is understood that termination pursuant to this Section 20.5 shall be a remedy of last resort and may be invoked only in the case where the breach cannot be reasonably remedied by the payment of money damages. If a Party gives notice of termination under this Section 20.5, and the other Party disputes whether such notice was proper, then the issue of whether this Agreement has been terminated shall be resolved in accordance with Article 24. If as a result of such dispute resolution process it is determined that the notice of termination was proper, then such termination shall be deemed to have been effective **[*]** days following the date of receipt of the notice of termination. If as a result of such dispute resolution process it is determined that the notice of termination was improper, then no termination shall have occurred and this Agreement shall remain in effect.

20.6 Change of Control. Upon a Change of Control of Dynavax at any time during the Joint Research Programme, AstraZeneca shall have the right to (a) terminate this Agreement in its entirety by delivering written notice of termination to Dynavax at any time within **[*]** months after the date of such Change of Control or (b) terminate only the Parties' collaboration under the Joint Research Programme with immediate effect thereby ending the Research Term. In the event AstraZeneca exercises the latter option, AstraZeneca shall be under no obligation to provide Dynavax with any further compensation pursuant to Article 7 but shall remain responsible for payments under Articles 9 and 10. Following such termination of the Research Term, Dynavax shall immediately provide AstraZeneca with all Collaboration Technology generated by it under the Joint Research Programme and not previously provided to AstraZeneca and shall immediately return to AstraZeneca all AstraZeneca Confidential Information, including any and all copies thereof, and those portions of any documents, memoranda, notes, studies, analyses or other material prepared by or on behalf of Dynavax that incorporate or are derived from such Confidential Information. For the avoidance of doubt, in the event of such termination, Dynavax shall have no further rights to use any Collaboration Technology, AstraZeneca Technology or AstraZeneca Confidential Information for any purpose in the Field. **[*]**. The Agreement shall remain valid and in full force and effect in all other respects. Upon a Change of Control of AstraZeneca at any time

during the Term, the successor in interest and/or surviving entity shall continue to perform the obligations of and exercise the rights of AstraZeneca pursuant to this Agreement in the same manner as intended by AstraZeneca as of the Effective Date.

20.7 Consequences of Termination.

20.7.1 Payment by AstraZeneca. Upon termination of this Agreement by AstraZeneca pursuant to Section 20.2 prior to the **[*]** anniversary of the Effective Date, AstraZeneca shall make a lump sum payment to Dynavax to compensate Dynavax for such early termination in an amount equal to **[*]**; provided, however, that AstraZeneca shall have no obligation to make such payment in the event it terminates this Agreement pursuant to Section 20.5.1 or 20.6 or Section 21.4. For clarity, the foregoing lump sum payment shall be in addition to any ongoing payment obligations AstraZeneca may have for existing clinical trials pursuant to Section 20.2. In addition to the lump sum, and on condition that Dynavax maintain the level of internal Dynavax FTE support existing as at the date of termination to any continuing research activities previously covered by the Joint Research Programme, AstraZeneca shall meet **[*]** of any reasonable external FTE costs Dynavax incurs during the period of **[*]** months following immediately after the date of the termination. AstraZeneca shall have no obligation to make such additional external FTE contribution in the event it terminates this Agreement pursuant to Section 20.5.1 or 20.6 or Section 21.4.

20.7.2 Cessation of Obligations; Return of Materials. Upon termination of this Agreement, Dynavax shall promptly cease its performance of obligations under this Agreement. The expiration or termination of this Agreement shall be without prejudice to any rights or obligations of the Parties that may have accrued prior to such expiration or termination and, except as otherwise expressly provided herein, shall not limit any rights or remedies which may be available at law or otherwise. Upon the termination or expiration of this Agreement, each Party shall, at its sole expense, promptly return to the other Party all Confidential Information of such other Party and, at such other Party's option, either destroy or return to such other Party all materials

received from such other Party, except to the extent that the Receiving Party has a continuing licence to use such materials. Notwithstanding the foregoing, the General Counsel of each Party may retain one copy of each business document generated by such Party in connection with this Agreement for archival purposes only, and all such retained documents shall be subject to the confidentiality obligations of this Agreement.

20.7.3 Licences.

(g) Upon termination of this Agreement in its entirety by AstraZeneca pursuant to Section 20.2 or 20.3 or by Dynavax pursuant to Section 20.4 or Section 20.5, all licenses to AstraZeneca under Section 6.2 shall terminate, and (A) AstraZeneca shall, and hereby does, grant to Dynavax an exclusive, worldwide, perpetual, irrevocable, royalty-free license, with right to sublicense and to enforce patents, under the AstraZeneca Technology, to make, have made, use, import, offer for sale and sell the then current Dynavax ISS, Collaboration ISS, CD, Product and Combination Product(s) in the Field, and (B) **[*]**. Dynavax shall have the right to use **[*]**.

(h) Upon termination by AstraZeneca of AstraZeneca's obligations and/or license rights to a specific Dynavax ISS, Collaboration ISS, CD, Product and/or Combination Product pursuant to Sections 20.2 or 20.3, the license to AstraZeneca under Section 6.2 shall terminate solely as to such Dynavax ISS, Collaboration ISS, CD, Product and/or Combination Product(s), and (A) AstraZeneca shall, and hereby does, grant to Dynavax an exclusive, worldwide, perpetual, irrevocable, royalty-free license, with right to sublicense and to enforce patents, under the AstraZeneca Technology, to make, have made, use, import, offer for sale and sell such Dynavax ISS, Collaboration ISS, CD, Product and Combination Product(s) in the Field, and (B) **[*]**. Dynavax shall have the right to use **[*]**.

(i) Upon termination by AstraZeneca of AstraZeneca's obligations and/or license rights to a specific Dynavax ISS, Collaboration ISS, CD, Product and/or Combination Product in a particular country pursuant to

Sections 20.2 or 20.3, the license to AstraZeneca under Section 6.2 shall terminate solely as to such Dynavax ISS, Collaboration ISS, CD, Product and/or Combination Product(s) in such country, and (A) AstraZeneca shall, and hereby does, grant to Dynavax an exclusive, worldwide, perpetual, irrevocable, royalty-free license, with right to sublicense and to enforce patents, under the AstraZeneca Technology, to make, have made, use, import, offer for sale and sell such Dynavax ISS, Collaboration ISS, CD, Product and Combination Product(s) in the Field in such country only and (B) **[*]**. Dynavax shall have the right to use **[*]**.

(j) Upon termination of this Agreement by AstraZeneca pursuant to Section 20.5.1, the licenses to AstraZeneca under Section 6.2 shall remain in effect. In such case, AstraZeneca shall remain liable for **[*]** of the milestone payments and **[*]** of the royalties due under Article 10 and Section 10.7 shall cease to apply. The foregoing milestone and royalty reduction shall not be an exclusive remedy, but any claim for money damages by AstraZeneca shall be reduced by the economic effect of such **[*]** reduction in milestone payments and royalty obligations. Following termination under Section 20.5.1 AstraZeneca shall be relieved of its remaining obligations to Dynavax under this Agreement except for AstraZeneca's obligations under Articles 9, 10 (other than Section 10.7), 13, 14, and 19.

(k) For clarity, in the event of termination of this Agreement in its entirety or in part by AstraZeneca or Dynavax (as appropriate) pursuant to Sections 20.2, 20.3, 20.4 or 20.5, if the Product or Combination Product at the time of termination is being Commercialized with or has been the subject of human clinical trials that included a delivery device, AstraZeneca shall **[*]**. In particular, if such device was a proprietary AstraZeneca device, then for the purposes of the above sentence, AstraZeneca shall **[*]**. If such device was a Third Party device, then AstraZeneca shall **[*]**.

20.7.4 Manufacturing. Upon termination of this Agreement in whole or in part by AstraZeneca pursuant to Sections 20.2 or 20.3 or by Dynavax pursuant to Section 20.4, AstraZeneca shall immediately provide to Dynavax copies of process and manufacturing technology, material and data sufficient to enable Dynavax concurrently to produce and supply any Product or Combination Product that was being Commercialized. AstraZeneca shall provide reasonable assistance to Dynavax to effect such transfers in an orderly fashion and to enable Dynavax to begin manufacturing and supplying the Product and/or Combination Product as soon as possible to minimize any disruption in the continuity of supply.

20.8 Survival. The following provisions shall survive the expiration or termination of this Agreement: Articles 1, 2, 13, 19, 23 through 28, 30, 31 and 32 and Sections 3.8, 7.3, 10.14, 18.5, 20.7 and 20.8, together with any sections referenced in such surviving provisions or necessary to give them effect. Termination of this Agreement shall not relieve the Parties of any liability that accrued hereunder prior to the effective date of such termination. Termination of this Agreement shall not preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement nor prejudice either Party's right to obtain performance of any obligation.

20.9 Rights in Bankruptcy. All rights and licences granted under or pursuant to this Agreement by Dynavax are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code or analogous provisions of Applicable Law outside the United States, licences of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code or analogous provisions of Applicable Law outside the United States (hereinafter **"IP"**). The Parties agree that each of the Parties, as licensee of such rights under this Agreement, shall retain and may fully exercise all of its rights and elections under the U.S. Bankruptcy Code or any other provisions of Applicable Law outside the United States that provide similar protection for IP. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against Dynavax on the one hand, or AstraZeneca on the other hand, under the U.S. Bankruptcy Code or analogous provisions of Applicable Law outside the United States, AstraZeneca or Dynavax, as applicable, shall be entitled to a complete duplicate of (or complete access to, as appropriate) any

such IP and all embodiments of such IP, which, if not already in such Party's possession, shall be promptly delivered to it upon such Party's written request therefor.

21 Force Majeure

21.1 In this Agreement, **"Force Majeure"** means an event which is beyond a non-performing Party's reasonable control, including an act of God, act of the other Party, strike, lock-out or other industrial/labour dispute (whether involving the workforce of the Party so prevented or of any other Person), war, riot, civil commotion, terrorist act, malicious damage, epidemic, quarantine, fire, flood, earthquake, storm, natural disaster or compliance with any law or governmental order, rule, regulation or direction (including changes in the requirements of the health authorities), whether or not it is later held to be invalid. Notwithstanding the foregoing, the payment of invoices due and owing hereunder shall not be delayed by the payer because of a Force Majeure affecting the payer, unless such Force Majeure specifically precludes the payment process.

21.2 The Force Majeure Party shall, within **[*]** days of the occurrence of a Force Majeure event, give notice in writing to the other Party specifying the nature and extent of the event of Force Majeure, its anticipated duration and any action being taken to avoid or minimize its effect. Subject to providing such notice and to Section 21.1, the Force Majeure Party shall not be liable for delay in performance or for non-performance of its obligations under this Agreement, in whole or in part, nor shall the other Party have the right to terminate this Agreement, except as otherwise provided in this Agreement, where non-performance or delay in performance has resulted from an event of Force Majeure. The suspension of performance allowed hereunder shall be of no greater scope and no longer duration than is reasonably required.

21.3 The Force Majeure Party shall use reasonable endeavours, without being obligated to incur any expenditure or cost, to bring the Force Majeure event to a close or to find a solution by which this Agreement may be performed despite the continuation of the event of Force Majeure.

21.4 If the Force Majeure Party is prevented from performing its obligations due to a Force Majeure event for a continuous period in excess of **[*]** days after the date of the occurrence of the Force Majeure event, and such failure to perform would constitute a material breach of this Agreement in the absence of such Force Majeure event, the Parties shall meet and discuss in good faith any amendments to this Agreement to permit the other Party to exercise its rights under this Agreement. If the Parties are not able to agree on such amendments within **[*]** days of commencement of such discussions and if the suspension of performance continues, such other Party may terminate this Agreement immediately by written notice to the Force Majeure Party, in which case neither Party shall have any liability to the other except for those rights and liabilities that accrued prior to the date of termination.

22 Assignment

22.1 Neither Party may assign its rights or, except as provided in Sections 3.5.4 , 6.6 and 6.7, delegate its obligations under this Agreement in whole or in part without the prior written consent of the other Party, except that a Party shall always have the right, without such consent, on written notice to the other Party, assign any or all of its rights and delegate any or all of its obligations hereunder to any of its Affiliates or to any successor in interest (whether by merger, acquisition, asset purchase or otherwise) to all or substantially all of the business to which this Agreement relates. Any permitted successor of a Party or any permitted assignee of all of a Party's rights under this Agreement that has also assumed all of such Party's obligations hereunder in writing shall, upon any such succession or assignment and assumption, be deemed to be a party to this Agreement as though named herein in substitution for the assigning Party, whereupon the assigning Party shall cease to be a party to this Agreement and shall cease to have any rights or obligations under this Agreement. All validly assigned rights of a Party shall inure to the benefit of and be enforceable by, and all validly delegated obligations of such Party shall be binding on and be enforceable against, the permitted successors and assigns of such Party. Any attempted assignment or delegation in violation of this Article 22 shall be void.

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23 Severability

To the fullest extent permitted by applicable law, the Parties waive any provision of law that would render any provision of this Agreement invalid, illegal or unenforceable in any respect. If any provision of this Agreement is held to be invalid, illegal or unenforceable, in any respect, then such provision will be given no effect by the Parties and shall not form part of this Agreement. To the fullest extent permitted by Applicable Law and if the rights or obligations of any Party will not be materially and adversely affected all other provisions of this Agreement shall remain in full force and effect, and the Parties shall use their best efforts to negotiate a provision in replacement of the provision held invalid, illegal or unenforceable that is consistent with Applicable Law and achieves, as nearly as possible, the original intention of the Parties.

24 Dispute Resolution.

24.1 Disputes. The Parties recognize that disputes as to certain matters may from time to time arise during the Term which relate to either Party's rights and/or obligations hereunder. It is the objective of the Parties to establish procedures to facilitate the resolution of disputes arising under this Agreement in an expedient manner by mutual cooperation and without resort to litigation. To accomplish this objective, the Parties agree to follow the procedures set forth in this Article 24 if and when a dispute arises under this Agreement. In the event of any disputes, controversies or differences which may arise between the Parties, out of or in relation to or in connection with this Agreement, or for the breach thereof, upon the request of either Party, the Parties agree to meet and discuss in good faith a possible resolution thereof, which good faith efforts shall include at least one in-person meeting between representatives of each Party having decision-making authority (subject only to Board of Directors' or equivalent approval, if required). All such discussions under this Section shall be confidential and shall be treated as compromise and settlement negotiations for purposes of applicable rules of evidence. If the matter is not resolved within **[*]** days following the request for discussions, either Party may then invoke the provisions of Section 24.2 below.

24.2 Arbitration. Any dispute, controversy or claim arising out of or relating to the validity, construction, interpretation, enforceability, breach, performance, application

or termination of this Agreement that is not resolved pursuant to Section 24.1, except for a dispute, claim or controversy under Section 24.13, shall be settled by binding arbitration administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures of JAMS then in effect (the "JAMS Rules"), except as otherwise provided herein. The arbitration shall be governed by the United States Federal Arbitration Act, 9 U.S.C. §§ 1-16 (the "Federal Arbitration Act"), to the exclusion of any inconsistent state laws. The arbitration will be conducted in Wilmington, Delaware and the Parties consent to the personal jurisdiction of the United States federal courts, for any case arising out of or otherwise related to this arbitration, its conduct and its enforcement. The language used in the arbitration proceedings shall be English. Any situation not expressly covered by this Agreement shall be decided in accordance with the JAMS Rules.

24.3 Arbitrator.

The arbitrator shall be one (1) neutral, independent and impartial arbitrator selected from a pool of retired federal judges to be presented to the Parties by JAMS. Failing the agreement of the Parties as to the selection of the arbitrator within thirty (30) days, the arbitrator shall be appointed by JAMSin accordance with the JAMS Rules.

24.4 Governing Law. Resolution of all disputes arising out of or related to this Agreement or the validity, construction, interpretation, enforcement, breach, performance, application or termination of this Agreement and any remedies relating thereto, shall be governed by and construed under the substantive laws of the State of Delaware, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Agreement to the substantive law of another jurisdiction.

24.5 Decision. The power of the arbitrator to fashion procedures and remedies within the scope of this Agreement is recognized by the Parties as essential to the success of the arbitration process. The arbitrator shall not have the authority to fashion remedies which would not be available to a federal judge hearing the same dispute. The arbitrator is encouraged to operate on this premise in an effort to reach a fair and just decision. Reasons for the arbitrator's decisions should be complete and explicit, including all determinations of law and fact. The written reasons should also include the basis for any damages awarded and a statement of how the damages were

calculated. Such a written decision shall be rendered by the arbitrator following a full comprehensive hearing, no later than [*] months following the selection of the arbitrator as provided for in Section 24.3.

24.6 Award.

24.6.1 Any award shall be paid in U.S. dollars free of any tax, deduction or offset; and any costs, fees or taxes incident to enforcing the award shall, to the maximum extent permitted by law, be charged against the Party resisting enforcement.

24.6.2 If as to any issue the arbitrator should determine under the applicable law that the position taken by a Party is frivolous or otherwise irresponsible or that any wrongdoing they find is in callous disregard of law and equity or the rights of the other Party, the arbitrator shall also award an appropriate allocation of the adversary's reasonable attorney fees, costs and expenses to be paid by the offending Party, the precise sums to be determined after a bill of attorney fees, expenses and costs consistent with such award has been presented following the award on the merits.

24.6.3 Each Party agrees to abide by the award rendered in any arbitration conducted pursuant to this Article 24, and agrees that, subject to the Federal Arbitration Act, judgment may be entered upon the final award in the Federal District Court in Delaware and that other courts may award full faith and credit to such judgment in order to enforce such award.

24.6.4 The award shall include interest from the date of any damages incurred for breach of the Agreement, and from the date of the award until paid in full, at a rate fixed by the arbitrator.

24.6.5 With respect to money damages, nothing contained herein shall be construed to permit the arbitrator or any court or any other forum to award punitive or exemplary damages. By entering into this agreement to arbitrate, the Parties expressly waive any claim for punitive or exemplary damages. The only damages recoverable under this Agreement are compensatory damages (including, without limitation, consequential damages).

24.7 Costs. Except as set forth in Section 24.6.2, each Party shall bear its own legal fees. The arbitrator shall assess his or her costs, fees and expenses against the Party losing the arbitration unless he or she believes that neither Party is the clear loser, in which case the arbitrator shall divide his or her fees, costs and expenses according to his or her sole discretion.

24.8 Injunctive Relief. Provided a Party has made a sufficient showing under the rules and standards set forth in the Federal Rules of Civil Procedure and applicable case law, the arbitrator shall have the freedom to invoke, and the Parties agree to abide by, injunctive measures after either Party submits in writing for arbitration claims requiring immediate relief. Nothing in this Article 24 will preclude either Party from seeking equitable relief in accordance with Article 32 or interim or provisional relief from a court of competent jurisdiction, including a temporary restraining order, preliminary injunction or other interim equitable relief, concerning a dispute either prior to or during any arbitration if necessary to protect the interests of such Party or to preserve the status quo pending the arbitration proceeding.

24.9 Confidentiality. The arbitration proceeding shall be confidential and the arbitrator shall issue appropriate protective orders to safeguard each Party's Confidential Information. Except as required by law, no Party shall make (or instruct the arbitrator to make) any public announcement with respect to the proceedings or decision of the arbitrator without prior written consent of the other Party. The existence of any dispute submitted to arbitration, and the award, shall be kept in confidence by the Parties and the arbitrator, except as required in connection with the enforcement of such award or as otherwise required by applicable law.

24.10 Survivability. Any duty to arbitrate under this Agreement shall remain in effect and be enforceable after termination of the contract for any reason.

24.11 Jurisdiction. For the purposes of this Article 24, the parties acknowledge their diversity (AstraZeneca having its principal places of business in Sweden and the UK and Dynavax having its principal place of business in California) and agree to accept the jurisdiction of the Federal District Court in Delaware for the purposes of enforcing or appealing any awards entered pursuant to this Article 24 and for enforcing the agreements reflected in this Article 24 and agree not to commence any action, suit or proceeding related thereto except in such courts.

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24.12 Patents and Trademarks. Any dispute, controversy or claim relating to the scope, validity, enforceability or infringement of any Patent rights covering the manufacture, use, importation, offer for sale or sale of the Product or any Combination Product or of any AstraZeneca trademarks, Dynavax trademarks, or trademark rights related to the Product or any Combination Product shall be submitted to a court of competent jurisdiction in the country in which such Patent or trademark rights were granted or arose.

24.13 Provisions Unique to Arbitrations Pursuant to Section 8.10. Notwithstanding anything to the contrary in this Article 24, if the arbitration is commenced pursuant to Section 8.10 in connection with a dispute regarding whether either Party has met its diligence obligations, then such arbitration shall be conducted by the arbitrator selected pursuant to Section 24.3 together with two experts having at least ten (10) years of experience in drug discovery or development, either in a commercial setting or as a full time faculty member at a university or medical institute (the "Expert"). One such Expert shall be selected by AstraZeneca and the other Expert shall be selected by Dynavax. Such Experts shall participate in the arbitration solely as advisors and shall not assume any of the authority of the arbitrator.

25 Notices

25.1 Notice Requirements. Any notice, request, demand, waiver, consent, approval or other communication permitted or required under this Agreement shall be in writing and shall be deemed given only if delivered by hand or sent by facsimile transmission (with transmission confirmed) or by internationally recognised overnight delivery service that maintains records of delivery, addressed to the Parties at their respective addresses specified in Section 25.2 or to such other address as the Party to whom notice is to be given may have provided to the other Party in accordance with this Article 25. Such notice shall be deemed to have been given as of the date delivered by hand or transmitted by facsimile (with transmission confirmed) or on the second business day (at the place of delivery) after deposit with an internationally recognised overnight delivery service. Any notice delivered by facsimile shall be confirmed by a hard copy delivered as soon as practicable thereafter. This Article 25 is not intended to govern the day-to-day business communications necessary between the Parties in performing their obligations under the terms of this Agreement.

25.2 Address for Notice

For:

AstraZeneca AB

Address: AstraZeneca R&D Lund,
Schelegatan 10
Sweden
Facsimile: [*]
For the attention of: Director Discovery Alliances

With a copy to: AstraZeneca UK Limited
Address: Alderley House, Alderley Park, Macclesfield, Cheshire SK10 4TF
Facsimile: [*]
For the attention of: Assistant General Counsel

For: Dynavax Pharmaceuticals, Inc.
2929 Seventh Street
Suite 100
Berkeley, CA 94710-2753
Fax: [*]
Attn: D. Kevin Kwok, Vice President & Chief Business Officer

Witha copy to:

Cooley Godward LLP
Five Palo Alto Square
3000 El Camino Real
Palo Alto, CA 94306-2155
Fax: [*]
Attention: Robert L. Jones, Esq.

26 Relationship of the Parties

The status of a Party under this Agreement shall be that of an independent contractor. Nothing contained in this Agreement shall be construed as creating a partnership, joint

venture or agency relationship between the Parties or, except as otherwise expressly provided in this Agreement, as granting either Party the authority to bind or contract any obligation in the name of or on the account of the other Party or to make any statements, representations, warranties or commitments on behalf of the other Party. All persons employed by a Party shall be employees of such Party and not of the other Party and all costs and obligations incurred by reason of any such employment shall be for the account and expense of such Party.

27 Entire Agreement

This Agreement constitutes the entire agreement between the Parties with respect to the subject matter of this Agreement. This Agreement supersedes all prior agreements, whether written or oral, with respect to the subject matter of this Agreement. In particular, this Agreement supersedes the Confidentiality Agreement between the Parties, effective 12 October 2004, and all confidential information exchanged between the Parties under such Confidentiality Agreement shall be deemed the Confidential Information of the corresponding Party and protected under this Agreement. Each Party confirms that it is not relying on any representations, warranties or covenants of the other Party except as specifically set out in this Agreement. Nothing in this Agreement is intended to limit or exclude any liability for fraud. All Schedules and Exhibits referred to in this Agreement are intended to be and are hereby specifically incorporated into and made a part of this Agreement. In the event of any inconsistency between any such schedules or Exhibits and this Agreement, the terms of this Agreement shall govern.

28 English Language

This Agreement is written and executed in the English language. Any translation into any other language shall not be an official version of this Agreement and in the event of any conflict in interpretation between the English version and such translation, the English version shall prevail.

29 Amendment

Any amendment or modification of this Agreement must be in writing and signed by authorised representatives of both Parties.

30 Waiver and Non-Exclusion of Remedies

A Party's failure to enforce, at any time or for any period of time, any provision of this Agreement, or to exercise any right or remedy shall not constitute a waiver of that provision, right or remedy or prevent such Party from enforcing any or all provisions of this Agreement and exercising any rights or remedies. To be effective any waiver must be in writing. The rights and remedies provided herein are cumulative and do not exclude any other right or remedy provided by law or otherwise available except as expressly set forth herein.

31 No Benefit to Third Parties

The provisions of this Agreement are for the sole benefit of the Parties and their successors and permitted assigns, and they shall not be construed as conferring any rights in any other Persons except as otherwise expressly provided Article 22.

The Contracts (Rights of Third Parties) Act 1999 shall not apply to this Agreement. Except as expressly provide in Article 22, no Person who is not a party to this Agreement (including any employee, officer, agent, representative or subcontractor of either Party) shall have the right (whether under the Contracts (Rights of Third Parties) Act 1999 or otherwise) to enforce any term of this Agreement which expressly or by implication confers a benefit on that Person without the express prior agreement in writing of the Parties, which agreement must refer to this Article 31.

32 Equitable Relief

Each Party acknowledges and agrees that the restrictions set forth in this Agreement are reasonable and necessary to protect the legitimate interests of the other Party and that neither Party would have entered into this Agreement in the absence of such restrictions, and that any breach or threatened breach of any provision of this Agreement may result in irreparable injury to the non-breaching Party for which there will be no adequate remedy at law. In the event of a breach or threatened breach of any provision of this Agreement, the non-breaching Party shall be authorised and entitled to obtain from any court of competent jurisdiction equitable relief, whether preliminary or permanent, specific performance and an equitable accounting of all earnings, profits and other benefits arising from such breach, which rights shall be

cumulative and in addition to any other rights or remedies to which such non-breaching Party may be entitled in law or equity. Each of Dynavax and AstraZeneca agrees to waive any requirement that the non-breaching Party (a) post a bond or other security as a condition for obtaining any such relief, and (b) show irreparable harm, balancing of harms, consideration of the public interest or inadequacy of monetary damages as a remedy. Nothing in this Article 32 is intended, or should be construed, to limit a non-breaching Party's right to equitable relief or any other remedy for a breach of any other provision of this Agreement, provided, however, that resolution of disputes between the Parties is subject to the provisions of Article 24.

33 Further Assurance

33.1 Each Party shall perform all further acts and things and execute and deliver such further documents as may be necessary or as the other Party may reasonably require to implement or give effect to this Agreement.

33.2 The Parties recognize that each may perform some or all of its obligations and exercise any or all of its rights under this Agreement, without the prior consent of the other Party, through Affiliates or Sublicensees, *provided, however,* that each Party shall remain responsible for the performance by its Affiliates and Sublicensees and shall cause its Affiliates and Sublicensees to comply with the provisions of this Agreement in connection with such performance. In particular, if any Affiliate of a Party or a Sublicensee participates in research under this Agreement or with respect to the Product or any Combination Product(s), (a) the restrictions of this Agreement which apply to the activities of a Party with respect to a CD, the Product or any Combination Product(s) shall apply equally to the activities of such Affiliate and Sublicensee, and (b) the Party affiliated with such Affiliate or Sublicensee shall assure that any intellectual property developed by such Affiliate or Sublicensee shall be governed by the provisions of this Agreement (and subject to the licenses set forth in Article 6) as if such intellectual property had been developed by the Party. Any action or omission by a Party's Affiliate or a Sublicensee which would, if such action or omission were conducted by the Party, constitute a breach of the Party's obligations under this Agreement will constitute a breach of such obligation by the Party (unless such obligation were otherwise satisfied by such Party or another of its Affiliates or Sublicensees).

34 Expenses

Except as otherwise expressly provided in this Agreement, each Party shall pay the fees and expenses of its respective lawyers and all other expenses and costs incurred by such Party incidental to the negotiation, preparation, execution and delivery of this Agreement.

35 Counterparts

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which taken together shall be deemed to constitute one and the same instrument. An executed signature page of this Agreement delivered by facsimile transmission shall be as effective as an original executed signature page.

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THIS AGREEMENT IS EXECUTED by the authorised representatives of the Parties, in duplicate, as of the date first written above.

SIGNED for and on behalf of	SIGNED for and on behalf of
AstraZeneca AB (publ)	**Dynavax Technologies Corporation**
/s/ Jan M Lundberg	/s/ Dino Dina
Signature	Signature
Name: Jan M Lundberg	Name: Dino Dina, M.D.
Title: EVP, Global Discovery	Title: President and CEO

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EXHIBIT A

CRITERIA FOR CANDIDATE DRUG TARGET PROFILE

[*]

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EXHIBIT B

DYNAVAX PATENTS

EXHIBIT B(1)

[*]

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EXHIBIT B(2)

[*]

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EXHIBIT C

JOINT RESEARCH PLAN

Description of Joint Research

[*]

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EXHIBIT D

PRE-APPROVED DYNAVAX SUBCONTRACTORS

[*]

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EXHIBIT E

PRESS RELEASE

2929 Seventh Street, Suite 100
Berkeley, CA 94710

Contact:

Dynavax Technologies Corporation

Jane M. Green, PhD

Corporate Communications
Phone (510) 665-4630

Email: jgreen@dvax.com

DYNAVAX ESTABLISHES COLLABORATION FOR

TLR-9 AGONISTS FOR ASTHMA AND COPD WITH ASTRAZENECA

Berkeley, CA – [Date] – Dynavax Technologies Corporation (NASDAQ:DVAX) has entered into an a three-year research collaboration and a License agreement with AstraZeneca for the discovery and development of TLR-9 agonist-based therapies for the treatment of asthma and chronic obstructive pulmonary disease (COPD). The collaboration will utilize Dynavax's proprietary second-generation TLR-9 agonist immunostimulatory sequences or ISS.

Under the terms of the agreement, Dynavax and AstraZeneca will collaborate to identify lead TLR-9 agonists and conduct appropriate research phase studies. AstraZeneca will be responsible for any development and worldwide commercialisation of products arising out of the research programme. Dynavax may have an opportunity for partial co-promotion in the United States of products arising from the collaboration.

Financial terms of the collaboration include an upfront fee of $10 million plus research funding and preclinical milestones that could bring the total committed funding of up to $20 million. Dynavax may also receive additional development milestones potentially resulting in a collaboration value of up to approximately $129 million. Upon commercialization, Dynavax is also eligible to receive royalties based on product sales.

"The management of respiratory diseases such as asthma and COPD remains a major health challenge affecting 150 million people worldwide and representing a significant financial

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burden to the global healthcare system," said Claude Bertrand, Vice President Respiratory and Inflammation Research at AstraZeneca. "New approaches that have the potential to reverse the course of respiratory disease are needed. AstraZeneca believes that Dynavax's ISS-based technology represents an innovative, next-generation therapeutic intervention that could potentially expand and strengthen AstraZeneca's strong position in the respiratory disease field."

"We believe that AstraZeneca is the ideal partner for the development of asthma and COPD ISS-based therapies, as they have one of the most widely respected and commercially successful respiratory product portfolios in the industry," said Dino Dina, MD, Dynavax's chief executive officer. "We appreciate AstraZeneca's recognition of the innovative, disease-modifying potential of our TLR-9 agonist based approaches and are optimistic that with our combined resources and know-how, we will be able to create novel therapeutics that may provide benefit to patients suffering from these diseases."

Continued Dr. Dina: "We believe that the positive clinical experience we have previously demonstrated provides a strong foundation for applying ISS-based agonists to treat asthma and COPD. We are hopeful that this collaboration, the goal of which is to explore the potential of ISS alone to treat respiratory diseases, will help to expand our existing portfolio of ISS-based products."

[[Conference Call Today]]

Dynavax will hold a conference call to discuss [[ ]] today at [5:00] p.m. Eastern. Interested parties may listen to the webcast live at http://www.dynavax.com by clicking on the "Events" tab under the heading, "Investors." The webcast is also being distributed over CCBN's Investor Distribution Network to both institutional and individual investors. Individual investors can listen to the call through CCBN's individual investor center at http://www.fulldisclosure.com or by visiting any of the investor sites in CCBN's Individual Investor Network. Institutional investors can access the call via CCBN's password-protected event management site, StreetEvents, at http://www.streetevents.com. A telephonic replay will be available through [[date]] by dialing 888.286.8010, access code: xxxxxxxx. International callers can dial 617.801.6888, access code: xxxxxxxx.

Forward Looking Statements

Dynavax cautions you that this press release contains forward-looking statements, including without limitation [[ ]]. Actual results may differ materially from those set forth in this release due to the risks and uncertainties inherent in Dynavax's business including, without limitation, risks relating to: [[ ]] the progress and timing of its current and anticipated clinical trials; difficulties or delays in developing, testing and manufacturing products to support clinical development plans; the scope and validity of patent protection for product candidates; competition from other companies working with ISS technologies and products; the ability to obtain additional financing to support operations; and other risks detailed in the "Risk Factors" section of Dynavax's Annual Report on Form 10-K and Quarterly Report on Form 10-Q. All forward-looking statements are made as of the date hereof and Dynavax undertakes no obligation to revise or update information provided in this press release.

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About Dynavax

Dynavax Technologies Corporation discovers, develops, and intends to commercialize innovative TLR-9 agonist-based products to treat and prevent allergies, infectious diseases, and chronic inflammatory diseases using versatile, proprietary approaches that alter immune system responses in highly specific ways. Our clinical development programs are based on immunostimulatory sequences, or ISS, which are short DNA sequences that enhance the ability of the immune system to fight disease and control chronic inflammation. Dynavax's pipeline includes: TOLAMBA, a ragweed allergy immunotherapeutic, for which a major safety and efficacy trial (DARTT) is currently underway, and that is in a supportive clinical trial in ragweed allergic children; HEPLISAV, a hepatitis B vaccine that is currently in a Phase 3 clinical trial; SUPERVAX, a hepatitis B vaccine; a cancer therapy currently in a Phase 2 clinical trial in non-Hodgkins lymphoma;**[*]**; and preclinical programs in hepatitis B therapy and hepatitis C therapy.

About AstraZeneca

AstraZeneca is a major international healthcare business engaged in the research, development, manufacture and marketing of prescription pharmaceuticals and the supply of healthcare services. It is one of the world's leading pharmaceutical companies with healthcare sales of $23.95 billion and leading positions in sales of gastrointestinal, cardiovascular, neuroscience, respiratory, oncology and infection products. AstraZeneca is listed in the Dow Jones Sustainability Index (Global) as well as the FTSE4Good Index.

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EXHIBIT F

CONFIRMATORY PATENT LICENCE

Patent Licence Agreement

Date:

Parties:

(1) 'The Licensor': having its registered office at .

(2) 'The Licensee': having its registered office at .

Recitals:

By an Agreement ('the Main Agreement') dated and made between the Licensor and the Licensee the Licensor granted for the consideration therein contained to the Licensee a licence under [UK Patent No] [European Patent (UK) No] ('the Patent').

Operative provisions:

1. In pursuance of the Main Agreement and for the consideration referred to in the Main Agreement the Licensor hereby confirms the grant to the Licensee of the exclusive licence from the Effective Date for the term specified in the Main Agreement to manufacture, market, sell and otherwise dispose of Licensed Products (as defined in the Main Agreement) for the life of the Patent and subject to the provisions of the Main Agreement.

2. Subject as provided in the Main Agreement this Licence shall terminate without notice in the event of the termination for any reason of the Main Agreement.

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IN WITNESS of which this Agreement has been executed as a deed and delivered the day and year first above written.

EXECUTED as a Deed by acting by:
[name of director] and:
[name of director/secretary]

EXECUTED as a Deed by acting by:
[name of director] and:
[name of director/secretary]

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Schedule 18.2.5

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[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

Schedule 18.2.6

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[*] = CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY BRACKETS, HAS BEEN OMITTED AND FILED SEPARATELY WITH THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO RULE 24B-2 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED.

Exhibit 31.1

Rule 13a-14(a) Certification of Chief Executive Officer

CERTIFICATIONS

I, Dino Dina, M.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Dynavax Technologies Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2011

By: /s/ DINO DINA, M.D.
Dino Dina, M.D.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Rule 13a-14(a) Certification of Vice President, Finance

CERTIFICATIONS

I, Jennifer Lew, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Dynavax Technologies Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 31, 2011

By: /s/ JENNIFER LEW
Jennifer Lew
Vice President, Finance
(Principal Accounting and Financial Officer)

Exhibit 32.1

Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code

I, Dino Dina, M.D., hereby certify, pursuant to 18 U.S.C § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, in my capacity as an officer of Dynavax Technologies Corporation (the "Company"), that, to the best of my knowledge:

(i) The Quarterly Report of the Company on Form 10-Q for the period ended September 30, 2011 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities and Exchange Act of 1934, as amended ("the Exchange Act"); and

(ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2011

By: /s/ DINO DINA, M.D.
Dino Dina, M.D.
Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement required by Section 906 of the Public Company Accounting Reform and Investor Protection Act of 2002 (18 U.S.C. § 1350, as adopted) has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission ("SEC") or its staff upon request. This certification "accompanies" the Form 10-Q to which it relates, is not deemed filed with the SEC and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code

I, Jennifer Lew, hereby certify, pursuant to 18 U.S.C § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, in my capacity as an officer of Dynavax Technologies Corporation (the "Company"), that, to the best of my knowledge:

(i) The Quarterly Report of the Company on Form 10-Q for the period ended September 30, 2011 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities and Exchange Act of 1934, as amended ("the Exchange Act"); and

(ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: October 31, 2011

By: /s/ JENNIFER LEW
Jennifer Lew
Vice President, Finance
(Principal Accounting and Financial Officer)

A signed original of this written statement required by Section 906 of the Public Company Accounting Reform and Investor Protection Act of 2002 (18 U.S.C. § 1350, as adopted) has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission ("SEC") or its staff upon request. This certification "accompanies" the Form 10-Q to which it relates, is not deemed filed with the SEC and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Exchange Act (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.