UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

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

For the quarterly period ended March 31, 2004

OR

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

Commission file number: 0-15006

AVANT IMMUNOTHERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**No. 13-3191702**
(State of Incorporation)	(I.R.S. Employer Identification No.)

119 Fourth Avenue, Needham, Massachusetts 02494-2725
(Address of principal executive offices) (Zip Code)

(781) 433-0771
(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12 b-2 of the Exchange Act.) Yes ☒ No o.

As of April 23, 2004, 74,291,400 shares of common stock, $.001 par value per share, were outstanding.

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FORM 10-Q
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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

AVANT IMMUNOTHERAPEUTICS, INC.
CONSOLIDATED BALANCE SHEET
March 31, 2004 and December 31, 2003
(Unaudited)

	March 31, 2004	December 31, 2003
ASSETS		
Current Assets:		
Cash and Cash Equivalents	$ 41,161,500	$ 20,251,000
Accounts Receivable	1,652,600	1,472,800
Prepaid Expenses and Other Current Assets	629,700	585,200
Total Current Assets	43,443,800	22,309,000
Property and Equipment, Net	1,053,100	912,700
Intangible and Other Assets	6,798,200	7,047,100
Goodwill	1,036,300	1,036,300
Total Assets	$ 52,331,400	$ 31,305,100
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts Payable	$ 427,300	$ 475,800
Accrued Expenses	2,132,100	1,453,400
Current Portion Deferred Revenue	381,800	1,456,200
Total Current Liabilities	2,941,200	3,385,400
Stockholders' Equity:		
Convertible Preferred Stock, 4,513,102 Shares Authorized; None Issued and Outstanding at March 31, 2004 and December 31, 2003	—	—
Common Stock, $.001 Par Value; 100,000,000 Shares Authorized; 74,291,400 Issued and 74,071,100 Outstanding at March 31, 2004 and 64,928,400 Issued and 64,708,100 Outstanding at December 31, 2003	74,300	64,900
Additional Paid-In Capital	256,945,000	233,643,500
Deferred Compensation	(920,000)	(989,000)
Less: 220,300 Common Treasury Shares at Cost at March 31, 2004 and December 31, 2003	(227,600)	(227,600)
Accumulated Deficit	(206,481,500)	(204,572,100)
Total Stockholders' Equity	49,390,200	27,919,700
Total Liabilities and Stockholders' Equity	$ 52,331,400	$ 31,305,100

See accompanying notes to unaudited consolidated financial statements

AVANT IMMUNOTHERAPEUTICS, INC.
CONSOLIDATED STATEMENT OF OPERATIONS
For the Three Months Ended March 31, 2004 and 2003
(Unaudited)

	March 31, 2004	March 31, 2003
REVENUE:		
Product Development and Licensing Agreements	$ 2,124,400	$ 169,400
Government Contracts	879,900	477,000
Product Royalties	26,400	35,300
Total Revenue	3,030,700	681,700
OPERATING EXPENSE:		
Research and Development	3,453,200	2,692,500

General and Administrative	1,292,100	1,224,700
Amortization of Intangible Assets	248,800	248,800
Total Operating Expense	4,994,100	4,166,000
Operating Loss	(1,963,400)	(3,484,300)
Investment Income, Net	54,000	122,100
Net Loss	$ (1,909,400)	$ (3,362,200)
Basic and Diluted Net Loss Per Common Share	$ (0.03)	$ (0.06)
Weighted Average Common Shares Outstanding	69,169,600	60,468,600

See accompanying notes to unaudited consolidated financial statements

AVANT IMMUNOTHERAPEUTICS, INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
For the Three Months Ended March 31, 2004 and 2003
(Unaudited)

	March 31, 2004	March 31, 2003
Cash Flows from Operating Activities:		
Net Loss	$ (1,909,400)	$ (3,362,200)
Adjustments to Reconcile Net Loss to Net Cash Used in Operating Activities:		
Depreciation and Amortization	352,700	435,100
Amortization of Deferred Compensation	69,000	¾
Changes in Assets and Liabilities:		
Accounts Receivable	(179,800)	(403,600)
Prepaid and Other Current Assets	(44,500)	21,900
Accounts Payable and Accrued Expenses	630,300	(681,800)
Deferred Revenue	(1,074,400)	913,100
Net Cash Used in Operating Activities	(2,156,100)	(3,077,500)
Cash Flows from Investing Activities:		
Acquisition of Property and Equipment	(244,300)	(100,400)
Increase in Patents	¾	(59,900)
Cash Paid for Acquisition of Universal Preservation Technologies, Inc. Assets	¾	(2,000,000)
Net Cash Used in Investing Activities	(244,300)	(2,160,300)
Cash Flows from Financing Activities:		
Proceeds from Stock Issuance	23,090,700	¾
Proceeds from Exercise of Stock Options and Warrants	220,200	3,400
Purchases of Treasury Stock	¾	(85,900)
Net Cash (Used In) Provided by Financing Activities	23,310,900	(82,500)
Decrease in Cash and Cash Equivalents	20,910,500	(5,320,300)
Cash and Cash Equivalents at Beginning of Period	20,251,000	25,070,700
Cash and Cash Equivalents at End of Period	$ 41,161,500	$ 19,750,400

See accompanying notes to unaudited consolidated financial statements

AVANT IMMUNOTHERAPEUTICS, INC.
Notes to Consolidated Financial Statements
March 31, 2004

(1) Nature of Business

AVANT Immunotherapeutics, Inc. is engaged in the discovery, development and commercialization of products that harness the human immune system to prevent and treat disease. The Company is developing a broad portfolio of vaccines and therapeutics against cardiovascular, viral and bacterial

diseases, including single-dose oral vaccines aimed at protecting travelers and people in endemic regions from cholera, typhoid fever and other illnesses. In addition, the Company is conducting clinical studies of a treatment to reduce complement-mediated tissue damage associated with cardiac by-pass surgery, and a proprietary vaccine candidate for cholesterol management. AVANT further leverages the value of its technology portfolio through corporate partnerships. Current collaborations encompass the development of an oral human rotavirus vaccine, vaccines to combat threats of biological warfare, and vaccines addressed to human food safety and animal health.

The unaudited consolidated financial statements include the accounts of AVANT Immunotherapeutics, Inc. and its wholly owned subsidiary, Megan Health, Inc. All intercompany transactions have been eliminated.

(2) Interim Financial Statements

The accompanying unaudited consolidated financial statements for the three months ended March 31, 2004 and 2003 include the consolidated accounts of AVANT, and have been prepared in accordance with instructions to Form 10-Q and Article 10 of Regulation S-X. In the opinion of management, the information contained herein reflects all adjustments, consisting solely of normal recurring adjustments, that are necessary to present fairly the financial position at March 31, 2004, the results of operations for the three-month periods ended March 31, 2004 and 2003, and the cash flows for the three-month periods ended March 31, 2004 and 2003. The results of operations for the three-month period ended March 31, 2004 is not necessarily indicative of results for any future interim period or for the full year.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been omitted, although we believe that the disclosures included, when read in conjunction with AVANT's Annual Report on Form 10-K for the year ended December 31, 2003, are adequate to make the information presented not misleading.

(3) Property and Equipment

Property and equipment includes the following:

	March 31, 2004	December 31, 2003
Laboratory Equipment	$ 2,447,300	$ 2,422,100
Manufacturing Equipment	165,300	¾
Office Furniture and Equipment	1,655,700	1,633,500
Leasehold Improvements	1,700,000	1,668,400
Property and Equipment, Total	5,968,300	5,724,000
Less Accumulated Depreciation and Amortization	(4,915,200)	(4,811,300)
	$ 1,053,100	$ 912,700

(4) Intangible and Other Assets

Intangible and other assets include the following:

	Estimated Lives	March 31, 2004	December 31, 2003
Intangible Assets:			
Collaborative Relationships	5 years	1,090,000	1,090,000
Core Technology	10 years	3,786,900	3,786,900
Developed Technology	7 years	3,263,100	3,263,100
Strategic Partner Agreement	17 years	2,563,900	2,563,900
Accumulated Amortization		(3,990,400)	(3,741,600)
Intangible Assets, Net		6,713,500	6,962,300
Other Non Current Assets		84,800	84,800
		$ 6,798,300	$ 7,047,100

All of our intangible assets are amortized over their useful lives. Total amortization expense for intangible assets was $248,800 for the three-month periods ended March 31, 2004 and 2003.

The estimated future amortization expense of intangible assets as March 31, 2004 for the remainder of fiscal year 2004 and the five succeeding years is as follows:

Year ending December 31,	Estimated Amortization Expense
2004 (remaining nine months)	$ 746,300
2005	995,100
2006	995,100
2007	956,300
2008	529,500
2009	529,500

(5) Net Income (Loss) Per Share

Consistent with SFAS 128, basic earnings (loss) per share amounts are based on the weighted average number of shares of common stock outstanding during the period. Diluted earnings (loss) per share amounts are based on the weighted average number of shares of common stock and the potential common stock outstanding during the period. We have excluded all of the potential common stock shares from the calculation of diluted weighted average share amounts for the three-month periods ended March 31, 2004 and 2003 as its inclusion would have been anti-dilutive. A total of 3,517,700 and 5,201,900 stock options and warrants were excluded from the computation of weighted average common shares as of March 31, 2004 and 2003, respectively, as they were anti-dilutive.

(6) Stock Options

We periodically grant stock options for a fixed number of shares to employees and directors with an exercise price equal to the fair market value of the shares at the date of grant. We account for such stock option grants using the intrinsic value method and intend to continue to do so.

The following are pro forma net loss and loss per share, as if compensation expense for the option plans had been determined based on the fair value at the date of grant:

	Three months ended March 31, 2004	Three months ended March 31, 2003
Net Loss:		
As reported	$ 1,909,400	$ 3,362,200
Add: Stock-based employee compensation expense as reported	69,000	—
Less: Total stock-based employee compensation expense determined under fair value based method for all awards	(171,300)	(226,100)
Pro forma	1,807,100	3,588,300
Basic and Diluted Net Loss Per Share:		
As reported	$ 0.03	$ 0.06
Pro forma	0.03	0.06

The fair value of the option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	Three months ended March 31, 2004	Three months ended March 31, 2003
Expected stock price volatility	109%	109%
Expected option term	5 Years	2.5 Years
Risk-free interest rate	2.7 – 3.5%	1.2 – 1.6%
Expected dividend yield	None	None

Because additional option grants are expected to be made each year, the above pro forma disclosures are not representative of pro forma effects of reported net income for future years.

(7) Product Development and Licensing Agreements

Our revenue from product development and licensing agreements was received pursuant to contracts with different organizations. Total revenue recognized by us in connection with these contracts for the years ended December 31, 2003, 2002 and 2001 were approximately $1,803,900, $6,412,400 and $2,999,800, respectively. A summary of these contracts follows:

(A) GlaxoSmithKline plc

During 1997, AVANT entered into an agreement with GlaxoSmithKline plc (“Glaxo”) to collaborate on the development and commercialization of our oral rotavirus vaccine. Under the terms of the agreement, Glaxo received an exclusive worldwide license to commercialize AVANT’s rotavirus vaccine. We were responsible for continuing the Phase II clinical efficacy study of the rotavirus vaccine, which was completed in August 1998. Glaxo made an initial license payment of $250,000 in 1997 upon execution of the agreement. In June 1999, we received a milestone payment of $500,000 from Glaxo for the successful completion of the Phase II clinical efficacy study and the establishment of a commercially viable process for manufacture of the vaccine. Glaxo has assumed responsibility for all subsequent clinical trials and all other development activities. Glaxo initiated global Phase III clinical trials of Rotarix® in the third quarter of 2003, and AVANT recognized a $1.0 million milestone. AVANT has no obligation to incur any research and development costs in connection with this agreement. AVANT is obligated to maintain a license with an academic institution with respect to this agreement and incurred licensing fees of $200,000, $400,000 and $300,000 in 2003, 2002 and 2001, respectively. The term of this agreement is through the expiration of the last of the patents covered by the agreement, although Glaxo may terminate the agreement upon 90 days prior written notice. Glaxo has agreed to make further payments, which could total up to $7.5 million, upon

the achievement of specified milestones. In addition, we will be entitled to royalties based on net sales of Rotarix®.

(B) Pfizer Inc

In connection with our acquisition of Megan, we entered into a licensing agreement with Pfizer Inc, Animal Health Division (“Pfizer”), whereby Pfizer has licensed Megan’s technology for the development of animal health and food safety vaccines. Upon execution of the agreement, Pfizer made an initial license payment of $2.5 million together with a $3 million equity investment. In December 2002, we received a milestone payment of $500,000 from Pfizer as a result of the submission of an application with the USDA for licensure of a food safety vaccine. Under the agreement, we may receive additional milestone payments of up to $3 million based upon attainment of specified milestones. We have received research and development funding totaling $1

million from Pfizer through November 2002 while incurring $1,057,000 in associated research and development costs. AVANT may receive royalty payments on eventual product sales. The term of this agreement is through the expiration of the last of the patents covered by the agreement. AVANT has no obligation to incur any research and development costs in connection with this agreement.

(C) DynPort Vaccine Company LLC

In October 2001, we granted DynPort Vaccine Company LLC (DVC) a license for exclusive rights to use certain components of AVANT's anthrax vaccine technology. In October 2001, in connection with the execution of the agreement, AVANT received a $200,000 materials transfer fee. Also in October 2002, DVC announced the initiation of a Phase I clinical trial of a new injectable recombinant anthrax vaccine in approximately 70 volunteers. The vaccine candidate consists of a highly purified protein—Protective Antigen—derived from the anthrax bacterium using recombinant technology and production processes licensed from AVANT. Under the agreement, AVANT is also entitled to annual $50,000 license maintenance payments, with respect to which AVANT has received $100,000, and milestone payments of up to $700,000 in the aggregate, $100,000 of which AVANT received upon initiation of the Phase I clinical trial. AVANT is also entitled to specified royalties on eventual product sales. The term of this agreement is through the expiration of the last of the patents covered by the agreement, although DVC may terminate the agreement upon 90 days prior written notice. DVC, a privately-held company, is chartered with providing an integrated approach for the advanced development of specific vaccines and other products to protect against the threat of biological warfare agents. DVC has a 10-year contract with the U.S. Department of Defense for the development of vaccines against certain acute infectious and contagious diseases, initiated under the 1997 Joint Vaccine Acquisition Program. AVANT has no obligation to incur any research and development costs in connection with this agreement.

(8) DVC Payment

During 2003, AVANT entered into an agreement with DVC for funding production of the replacement of AVANT's recombinant Protective Antigen ("rPA") clinical materials used by DVC in the Phase I clinical trial mentioned in Note 7 above. Under a separate agreement with the Walter Reed Army Institute of Research (WRAIR), AVANT was obligated to provide rPA for a clinical trial. AVANT recorded the $1 million received from DVC as deferred revenue in 2003. In 2004, the agreement with WRAIR was amended and AVANT was no longer obligated to provide rPA. Accordingly, AVANT recognized the previously deferred $1 million as revenue in the first quarter of 2004.

(9) Direct Equity Placement

In February 2004, we completed a direct equity placement of 8,965,000 shares of common stock to institutional investors at a price of $2.75 per share which generated gross proceeds totaling approximately $24.7 million. Expenses associated with the transaction totaled approximately $1,600,300.

(10) License Agreement with Adprotech

In March 2004, we granted a license to AdProTech, Ltd for non-exclusive rights to use certain components of AVANT's intellectual property surrounding complement inhibition. In April 2004, AVANT received an initial license payment of $1 million from AdProTech. As we have no continuing involvement or obligation under this license agreement, we recognized the $1 million as revenue during the quarter. Under the agreement, AVANT is entitled to annual license fees, milestone payments of up to $13.5 million in the aggregate and royalties on eventual product sales.

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995: *This quarterly report on Form 10-Q includes forward-looking statements that are subject to a variety of risks and uncertainties and reflect AVANT's current views with respect to future events and financial performance. There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statements made by AVANT. These factors include, but are not limited to: (1) the integration of multiple technologies and programs;(2) the ability to adapt AVANT's vectoring systems to develop new, safe and effective orally administered vaccines against anthrax and plague or any other microbes used as bioweapons and other disease causing agents; (3) the ability to successfully complete development and commercialization of TP10, CholeraGardeÔ (Peru-15), Ty800, CETi-1 and of other products; (4) the cost, timing, scope and results of ongoing safety and efficacy trials of TP10, CholeraGardeÔ (Peru-15), Ty800, CETi-1 and other preclinical and clinical testing; (5) the ability to successfully complete product research and further development, including animal, pre-clinical and clinical studies of TP10, CholeraGardeÔ (Peru-15), Ty800, CETi-1 and other products; (6) the ability of the Company to manage multiple late stage clinical trials for a variety of product candidates; (7) the volume and profitability of product sales of Megan®Vac 1, Megan®Egg and other future products; (8) changes in existing and potential relationships with corporate collaborators; (9) the cost, delivery and quality of clinical and commercial grade materials supplied by contract manufacturers; (10) the timing, cost and uncertainty of obtaining regulatory approvals to use TP10, for among other purposes, for adults undergoing cardiac surgery, to use CholeraGardeÔ (Peru-15) and Ty800, among other purposes, to protect travelers and people in endemic regions from diarrhea causing diseases, to use CETi-1, among other purposes, to raise serum HDL cholesterol levels and for other products; (11) the ability to obtain substantial additional funding; (12) the ability to develop and commercialize products before competitors; (13) the ability to retain certain members of management; and (14) other factors detailed from time to time in filings with the Securities and Exchange Commission. You should carefully review all of these factors, and you should be aware that there may be other factors that could cause these differences. These forward-looking statements were based on information, plans and estimates at the date of this report, and we do not promise to update any forward-looking statements to reflect changes in underlying assumptions or factors, new information, future events or other changes.*

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

AVANT's principle activity since our inception has been research and product development conducted on our own behalf, as well as through joint development programs with several pharmaceutical companies and other collaborators. We were incorporated in the State of Delaware in December 1983.

CRITICAL ACCOUNTING POLICIES

Our critical accounting policies are set forth under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 to our 2003 Form 10-K. There have been no changes to these policies since December 31, 2003. Readers are encouraged to review

these critical accounting policies in conjunction with the review of this Form 10-Q.

OVERVIEW

AVANT's focus is unlocking the power of the immune system to prevent and treat disease. We have assembled a broad portfolio of technologies and intellectual property that give us a strong competitive position in vaccines and immunotherapeutics. Six of our products are in clinical development. The development of immunotherapeutic vaccines like CETi-1 and the marriage of innovative vector delivery technologies with the unique VitriLife® manufacturing process represent the potential for a new generation of vaccines. Our goal is to become a leading developer of such innovative vaccines that address health care needs on a global basis.

We have actively developed and acquired innovative technologies – especially novel approaches to vaccine creation. Today our broad intellectual property position allows us to respond quickly and leverage our expertise into many different areas as opportunities and needs arise. For example, our vaccine technology for providing rapid protection against bacterial illnesses may prove useful for improving and expanding America's vaccine arsenal against microbial agents used in war or terrorist attacks.

AVANT is targeting its efforts where it can add the greatest value to the development of its products and technologies. Our goal is to demonstrate clinical proof-of-concept for each product, and then seek excellent partners to help see those products through to commercialization. This approach allows us to maximize the overall value of our technology and product portfolios while best ensuring the expeditious development of each individual product.

ACQUISITIONS

Universal Preservation Technologies, Inc.: In January 2003, AVANT completed the acquisition of certain technology and intellectual property of Universal Preservation Technologies, Inc. (UPT), a privately held company, and the licensure of certain patent rights from Elan Drug Delivery Limited (EDD), a subsidiary of Elan Corporation plc. EDD's license to AVANT gives AVANT exclusive rights in connection with those patents relating to orally administered vaccines, and non-exclusive rights in certain other fields.

Through this transaction, AVANT has gained exclusive rights to the VitriLifeÒ process for use in AVANT's oral vaccines and certain other non-injectable applications. VitriLife® is a patented drying method for the industrial-scale preservation of biological solutions and suspensions, such as proteins, enzymes, viruses, bacteria and other cells, which has the potential to cut production costs and improve product stability at room temperature or higher. We have determined that this technology has alternative future uses and will be incorporated into a number of AVANT's bacterial vaccine programs. AVANT paid an aggregate of $2,000,000 in consideration in the transaction, recorded this value to acquired intangible assets, and is amortizing these assets over their estimated lives of ten years.

Megan Health, Inc.: On December 1, 2000, AVANT acquired all of the outstanding capital stock of Megan Health, Inc. ("Megan"), a company engaged in the discovery and development of human and animal vaccines using patented gene modification technologies. In connection with the acquisition, we recorded a charge of $9,012,300 for acquired in-process research and development ("IPR&D"), which represented purchased in-process technology which had not yet reached technological feasibility and had no alternative future use. As of March 31, 2004, none of the acquired research and development projects had reached technical feasibility.

Virus Research Institute, Inc.: On August 21, 1998, AVANT acquired Virus Research Institute, Inc. ("VRI"), a company engaged in the discovery and development of systems for the delivery of vaccines and immunotherapeutics, and novel vaccines for adults and children. In connection with the acquisition, we recorded a charge of $44,630,000 for acquired IPR&D, which represented purchased in-process technology which had not yet reached technological feasibility and had no alternative future use. As of March 31, 2004, none of the acquired research and development projects had reached technical feasibility.

RESEARCH AND DEVELOPMENT ACTIVTIES

AVANT is currently focused on the development of a number of vaccine product candidates which are in various stages of clinical trials. We expect that a large percentage of our research and development expenses will be incurred in support of our current and future clinical trial programs.

The expenditures that will be necessary to execute AVANT's business plan are subject to numerous uncertainties. Completion of clinical trials may take several years or more, but the length of time generally varies substantially according to the type, complexity, novelty and intended use of a product

candidate. It is not unusual for the clinical development of these types of product candidates to each take five years or more, and for total development costs to exceed $100 million for each product candidate.

AVANT estimates that clinical trials of the type AVANT generally conducts are typically completed over the following timelines:

Clinical Phase	Estimated Completion Period
Phase I	1-2 Years
Phase II	1-5 Years
Phase III	1-5 Years

The duration and the cost of clinical trials may vary significantly over the life of a project as a result of differences arising during the clinical trial protocol, including, among others, the following:

- the number of patients that ultimately participate in the trial;
- the duration of patient follow-up that seems appropriate in view of results;
- the number of clinical sites included in the trials;
- the length of time required to enroll suitable patient subjects; and
- the efficacy and safety profile of the product candidate.

AVANT tests potential product candidates in numerous preclinical studies for safety, toxicology and immunogenicity. AVANT then may conduct multiple clinical trials for each product candidate. As we obtain results from trials, we may elect to discontinue or delay clinical trials for certain product candidates in order to focus our resources on more promising product candidates.

An element of AVANT's business strategy is to pursue the research and development of a broad portfolio of product candidates. This is intended to allow AVANT to diversify the risks associated with its research and development expenditures. As a result, AVANT believes its future capital requirements and its future financial success are not substantially dependent on any one product candidate. To the extent AVANT is unable to maintain a broad range of product candidates, AVANT's dependence on the success of one or a few product candidates increases.

AVANT's product candidates also have not yet received FDA regulatory approval, which is required before AVANT can market them as therapeutic or vaccine products. In order to proceed to subsequent clinical trial stages and to ultimately achieve regulatory approval, the FDA must conclude that AVANT's clinical data establish safety and efficacy. Historically, the results from preclinical testing and early clinical trials (through Phase II) have often not been predictive of results obtained in later clinical trials. A number of new drugs, biologics and vaccines have shown promising results in early clinical trials, but subsequently failed to establish sufficient safety and efficacy data to obtain necessary regulatory approvals.

Furthermore, AVANT's business strategy includes the option of entering into collaborative arrangements with third parties to complete the development and commercialization of AVANT's product candidates. In the event that third parties take over the clinical trial process for one of AVANT's product candidates, the estimated completion date would largely be under control of that third party rather than AVANT. AVANT cannot forecast with any degree of certainty which proprietary products, if any, will be subject to future collaborative arrangements, in whole or in part, and how such arrangements would affect AVANT's development plan or capital requirements. AVANT's programs may also benefit from subsidies, grants, contracts or government or agency-sponsored studies that could reduce AVANT's development costs.

As a result of the uncertainties discussed above, among others, AVANT is unable to estimate the duration and completion costs of its research and development projects or when, if ever, and to what extent it will receive cash inflows from the commercialization and sale of a product. AVANT's inability to complete its research and development projects in a timely manner or its failure to enter into collaborative agreements, when appropriate, could significantly increase its capital requirements and could adversely impact its liquidity. These uncertainties could force AVANT to seek additional, external sources of financing from time to time in order to continue with its business strategy. AVANT's inability to raise additional capital, or to do so on terms reasonably acceptable to it, would jeopardize the future success of its business. The amount incurred for each material research program since the beginning of 2001, is set forth below under "Program Developments." During the past five years through the end of 2003, AVANT incurred an aggregate of $65.0 million in research and development costs. During the three months ended March 31, 2004, AVANT incurred an aggregate of $3.5 million in research and development costs. The following table indicates the amount incurred for each of AVANT's material research programs and for other identified research and development activities during the three years ended December 31, 2003, 2002, and 2001 and the three-month periods ended March 31, 2004 and 2003. The amounts disclosed in the following table and in "Program Developments" below reflect direct research and development costs, license fees associated with the underlying technology and an allocation of indirect research and development costs to each program. Prior to January 1, 2000, AVANT did not track research and development costs by program and, therefore we are unable to disclose spending by program prior to that date.

	Three Months Ended March 31,		Year Ended December 31,		
	2004	2003	2003	2002	2001
Cholesterol Management Vaccine:					
CETi-1	$ 155,100	$ 1,191,600	$ 3,404,000	$ 3,176,800	$ 2,387,700
Bacterial Vaccines:					
CholeraGardeÔ	26,500	318,400	695,800	5,959,100	2,369,200
Ty800	168,900	138,000	186,300	2,203,600	1,863,500
Other	30,900	106,000	137,500	204,400	—
BioDefense Vaccines:	1,066,400	638,800	3,524,500	239,900	—
Food Safety & Animal Health Vaccines:	6,900	21,800	49,400	450,600	984,900
Viral Vaccines:					
Rotavirus vaccine	50,000	125,000	200,000	400,000	334,100
Other	54,300	10,400	72,400	346,800	264,600
Complement Inhibitors:					
TP10/TP20	1,847,700	142,500	1,648,700	1,714,800	12,930,500
Other Programs:	46,500	—	102,700	—	—
Discontinued Programs:	—	—	—	12,500	446,000
Total R&D Expense	$ 3,453,200	$ 2,692,500	$ 10,021,300	$ 14,708,500	$ 21,580,500

PROGRAM DEVELOPMENTS

Cholesterol Management Vaccine: We are developing an immunotherapeutic vaccine against endogenous cholesteryl ester transfer protein ("CETP"), which may be useful in reducing risks associated with atherosclerosis. CETP is a key intermediary in the balance of HDL (high-density lipoprotein) and LDL (low-density lipoprotein). We are developing this vaccine, CETi-1, to stimulate an immune response against CETP, which we believe

may improve the ratio of HDL to LDL cholesterol and reduce the progression of atherosclerosis. We have conducted preliminary studies of rabbits, which have demonstrated the ability of CETi-1 vaccine to elevate HDL and reduce the development of blood vessel lesions.

CETi-1 is being developed for the management of patients with low levels of HDL cholesterol. In September 1999, we initiated a double-blind placebo controlled, Phase I clinical trial of our CETi-1 vaccine in adult volunteers. The object of the study was to demonstrate the safety of single administrations of the vaccine at four different dosage strengths and results were announced in January 2001. The vaccine was very well tolerated in the 48 adult volunteers who participated in the study. The only serious adverse reaction reported during the study (allergic reaction to shower gel) was not related to study medication. There were no differences in the safety profiles of placebo groups and active vaccine groups. In addition, there was limited evidence of an immune response in one subject treated with the highest dose. Subsequently, AVANT announced results from a double-blinded placebo controlled extension of the earlier completed CETi-1 Phase I trial in the same healthy adult volunteers receiving a second dose of the vaccine. Results from the extension study showed measurable antibody titers in all dose groups treated with study medication, suggesting a dose-response relationship.

These data were helpful in moving the program forward to a placebo controlled Phase II study, which was initiated in August 2001, in approximately 200 patients with low levels of HDL cholesterol. The objectives of the study were to evaluate the safety, immunogenicity and dose-response relationship of the CETi-1 product in patients who receive an initial immunization followed by boosters. The primary endpoint was the change in HDL cholesterol measured after the six-month booster. In October 2003, AVANT completed the CETi-1 vaccine Phase II efficacy study. The results of the study demonstrated proof-of-concept in humans confirming that blocking cholesterol transfer could raise HDL levels. In addition, the CETi-1 vaccine worked as designed to elicit anti-CETP antibodies in a high percentage of patients treated, approximately 90%. During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $10.9 million in research, development and clinical costs associated with the CETi-1 program. During the three months ended March 31, 2004, AVANT incurred approximately $155,100 in research, development and clinical costs associated with the CETi-1 program. We plan to seek a corporate partner to complete development and to commercialize the CETi-1 vaccine.

Bacterial Vaccines: Modern biotechnology offers great potential for bettering health conditions worldwide. New vaccine technologies, in particular, can provide avenues to disease prevention and treatment with notable advantages over drugs in terms of patient compliance and cost. They also offer strategies to solve global health problems, to protect both civilians and military from biowarfare threats, and to increase the safety of our food supply. Our goal is to become a leading developer of innovative vaccines that address health care needs on a global basis. In this regard, we have recently completed the acquisition of VitriLife®, a new technology with the potential to reduce manufacturing costs and improve product stability, eliminating the need for vaccine refrigeration. With this technology and our *Cholera*- and *Salmonella*-vectored delivery technologies, named VibrioVec™ and SalmoVec™, we can now develop a new generation of vaccines that have an ideal product profile: safe, effective, oral, single-dose, rapidly protective and requiring no refrigeration.

Development of a safe, effective cholera vaccine is the first step in establishing AVANT's single-dose, oral bacterial vaccine franchise. During 2002, AVANT completed a Phase II dose-ranging study with CholeraGarde™ which confirmed the safety and activity of this vaccine and supported the start of Phase II trials in December 2002 with the International Vaccine Institute (IVI) in Bangladesh where cholera is endemic. IVI is assessing the safety and immunogenicity of the vaccine in adults before moving into progressively younger pediatric populations, eventually studying the vaccine in infants as young as nine months. To date, IVI has completed testing in adults and is now vaccinating toddlers, ages 2 to 5 years. In January 2004, we announced positive preliminary results of the adult portion from the Phase II clinical trial of CholeraGarde™ in Bangladesh. In 70 adult subjects, vaccination with the single-dose, oral cholera vaccine was well tolerated. Moreover, over 70% of the vaccinated adults responded with a favorable immune response. The study will complete in the second half of 2004.

In 2003, AVANT terminated its manufacturing contract with Bio Sidus, S.A., of Buenos Aires, Argentina, for the manufacture of its CholeraGarde™ vaccine. The two companies resolved their contractual issues and settled all claims during the fourth quarter of 2003. Clinical material for the IVI trials in Bangladesh previously has been manufactured by the Walter Reed Army Institute of Research

(WRAIR), and AVANT and WRAIR have entered into a manufacturing agreement to supply CholeraGarde™.

During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $9.2 million in research, development and clinical costs on its CholeraGarde™ program. During the three months ended March 31, 2004, AVANT incurred approximately $26,500 in research, development and clinical costs on its CholeraGarde™ program.

In addition, the National Institute of Allergy and Infectious Disease (NIAID) of the National Institutes of Health (NIH) and AVANT have agreed for the NIAID to conduct a Phase I in-patient dose-ranging clinical trial aimed at demonstrating the safety and immunogenicity of the Ty800 typhoid fever vaccine. The trial is planned for a NIAID-funded clinical site using NIAID-funded clinical material. The NIAID trial seeks to confirm the safety and immunogenicity of the Ty800 oral vaccine observed in an earlier physician-sponsored Ty800 vaccine study. During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $4.3 million in research, development and clinical costs on its Ty800 program. During the three months ended March 31, 2004, AVANT incurred approximately $168,900 in research, development and clinical costs on its Ty800 program.

Finally, we are developing three additional bacterial vaccines against enterotoxigenic *E. coli*, *Shigella* and *Campylobacter*—all important causes of serious diarrheal diseases worldwide. These three programs are in pre-clinical development. In 2004, we expect to allocate resources to further the development of a two-vaccine combination product containing ETEC and Campylobacter addressed to the travelers' market.

BioDefense Vaccines: The attenuated live bacteria used to create AVANT's single-dose oral vaccines can also serve as vectors for the development of vaccines against other bacterial and viral diseases. By engineering key disease antigens into the DNA of the vector organisms, AVANT expects to be able to extend the protective ability of its single-dose oral vaccines to a wide variety of illnesses. We believe our vector technologies may prove useful for improving and expanding America's vaccine arsenal against microbial agents used in war or terrorist attacks.

In October 2001, AVANT granted DynPort Vaccine Company LLC (DVC) a license for exclusive rights to use certain components of AVANT's anthrax vaccine technology. In October 2002, DVC announced the initiation of a Phase I clinical trial of a new injectable recombinant anthrax vaccine in approximately 70 volunteers. The vaccine candidate consists of a highly purified protein—Protective Antigen—derived from the anthrax bacterium using

recombinant technology and production processes licensed from AVANT. DVC hopes this vaccine will offer a safe, effective product to support the country's need for a new-generation anthrax vaccine. The Phase I trial is being conducted at WRAIR in conjunction with the Henry M. Jackson Foundation. The study will evaluate tolerability, safety and immunogenicity of DVC's new vaccine being developed for the U.S. Department of Defense (DoD) through the Joint Vaccine Acquisition Program (JVAP). In June 2003, AVANT was awarded a subcontract by DVC, in the amount of $344,000, which covers stability testing of DVC's injectable anthrax vaccine. Payments under the subcontract agreement are made on a time and materials basis and receipt of the full amount is conditioned upon the project being fully funded through completion and AVANT performing and continuing to demonstrate that it has the capability to perform the funded work.

In July 2002, AVANT was awarded a Phase I Small Business Innovation Research (SBIR) grant to support the development of the Company's oral, single-dose bacterial vectors to immunize people against anthrax. Vaccine delivery using live, attenuated bacteria is particularly well suited for situations where ease of administration and rapid onset of immunity are required, such as for protection against biological warfare agents. The NIAID of the NIH awarded this Live Attenuated Vaccines Against Anthrax grant, which provides approximately $125,000 in funding to AVANT.

Further, in January 2003, AVANT was awarded a subcontract to develop for the U.S. Department of Defense an oral combination vaccine against anthrax and plague using AVANT's proprietary vaccine

technologies. AVANT executed this initial subcontract with DVC and will be reimbursed on a time and materials basis for vaccine development research work performed by AVANT in the amount of $2.5 million. In June 2003, AVANT was awarded a second subcontract for approximately $1.3 million to support preclinical animal testing of vaccine constructs being developed by AVANT for the oral combination vaccine against anthrax and plague. In April 2004, AVANT was awarded a third subcontract for approximately $3 million to support the human clinical testing of a plague vaccine candidate being developed by AVANT for use in the oral combination vaccine. Payments under the subcontract agreement are made on a time and materials basis and receipt of the full amount is conditioned upon the project being fully funded through completion and AVANT performing and continuing to demonstrate that it has the capability to perform the funded work.

In August 2003, the Company announced that it had reached agreement with MassDevelopment, an economic development entity for the Commonwealth of Massachusetts, for AVANT to occupy and build-out a pilot-manufacturing facility in Fall River, Massachusetts. AVANT is establishing this 11,800 square foot facility to support the clinical development of its portfolio of bacterial vaccines, including vaccines for biodefense, as well as the continued development and product application of VitriLife®.

During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $3.8 million in research and development costs on its biodefense vaccine program. During the three months ended March 31, 2004, AVANT incurred approximately $1.1 million in research and development costs on its biodefense vaccine program.

Food Safety and Animal Health Vaccines: AVANT has also partnered with Pfizer, who will apply AVANT's vaccine technologies to animal health and human food safety markets. The Pfizer research programs are making significant progress and in late 2002 we achieved an important milestone, which resulted in a payment of $500,000 to AVANT. During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $1.5 million in research and development costs on its food safety and animal health vaccines program. During the three months ended March 31, 2004, AVANT incurred approximately $6,900 in research and development costs on its food safety and animal health vaccines program.

Rotavirus Vaccine: Rotavirus is a major cause of diarrhea and vomiting in infants and children. No vaccine against rotavirus is currently on the market. In 1997, we licensed our oral rotavirus vaccine to Glaxo. In 1999, after our Phase II study demonstrated 89% protection in a study involving 215 infants, Glaxo paid us an additional license fee and assumed full responsibility for funding and performing all remaining clinical development. Substantially all of the ongoing development is being conducted and funded by Glaxo. During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $1.1 million in licensing fees and $79,000 in research and development costs. During the three months ended March 31, 2004, AVANT incurred approximately $50,000 in licensing fees associated with the rotavirus program. Prior to January 1, 2000, AVANT did not track research and development costs by program and, therefore, we are unable to disclose spending by program prior to that date. Glaxo has completed Phase I/II bridging studies in over 6,000 infants in Europe, Latin America and Asia using its two-dose oral rotavirus vaccine, called Rotarix®. Glaxo initiated global Phase III clinical trials of Rotarix® in the third quarter of 2003, and AVANT recognized a $1.0 million milestone. Assuming product development and commercialization continues satisfactorily, we may receive additional milestone payments totaling $7.5 million upon the achievement of specified milestones. In addition, we will be entitled to royalties based on net sales of Rotarix®.

Complement Inhibitors: In 1997, we entered into an agreement with Novartis relating to the development of our complement inhibitor, TP10, for use in xenotransplantation (animal organs into humans) and allotransplantation (human organs into humans). The decision to license TP10 resulted in a $6 million equity investment and license payment by Novartis which was received by AVANT in January 2000. As of September 6, 2002, Novartis and AVANT agreed to terminate the TP10 agreement pursuant to which Novartis paid a net termination fee of $1.9 million and returned to AVANT all pre-clinical and clinical TP10 material.

In February 2002, AVANT announced that TP10 had not achieved a significant reduction in the primary endpoint of death, myocardial infarction, prolonged intubation or prolonged intra-aortic balloon pumping following preliminary analysis of a Phase II adult cardiac surgery trial conducted in 564 patients. However, further analysis of the study data demonstrated an important treatment benefit to male patients participating in the trial, with no significant treatment benefit to female patients. Adverse events reported following treatment with TP10 were generally similar to those seen in placebo treated patients and were said by investigators to be routinely observed following cardiopulmonary bypass.

The important treatment benefits seen in the male population were directly related to mortality and the benefit seen was impressive. This further analysis of the study data showed continued promise for this molecule and AVANT has announced its renewed commitment to its development. AVANT is conducting a Phase II double-blind, placebo-controlled trial of TP10 in approximately 300 women undergoing cardiopulmonary by-pass surgery. The trial will examine the effect of TP10 versus placebo, will conclude around year-end 2004, and will be conducted at approximately 25 sites throughout the United

States. The goals of the trial are to clarify the effect that TP10 has for women undergoing cardiac surgery, as well as augment the safety data for that patient population to allow for the design of a subsequent registration-directed trial.

During the period January 1, 2000 through December 31, 2003, AVANT incurred approximately $22.8 million in research, development and clinical costs. During the three months ended March 31, 2004, AVANT incurred approximately $1.8 million in research, development and clinical costs associated with its complement programs. With the termination of the Novartis agreement, AVANT can now offer a worldwide license for all fields, and may seek partnering arrangements to capture the value inherent in this program and its strong intellectual property portfolio.

TECHNOLOGY LICENSING

AVANT has adopted a business strategy of out-licensing technology that does not match its development focus or where it lacks sufficient resources for the technology's efficient development. For example, when AVANT acquired Megan it also signed an agreement with Pfizer Inc to leverage the value of Megan's oral vaccine technology in a significant market opportunity (animal health and human food safety) outside of AVANT's own focus on human health care.

DynPort License: In October 2001, AVANT granted a license to DynPort Vaccine Company LLC (DVC) for exclusive rights to use certain components of AVANT's vaccine technology. Financial terms of the agreement with DVC include license fees, milestone payments and royalties. DVC, a private company, is chartered with providing an integrated approach for the advanced development of specific vaccines and other products to protect against the threat of biological warfare agents. DVC has a 10-year contract with the U.S. Department of Defense for the development of vaccines against certain acute infectious diseases and contagious diseases, initiated under the 1997 Joint Vaccine Acquisition Program. We see this licensing opportunity as a way to further leverage our vaccine technology.

RESULTS OF OPERATIONS

Three-Month Period Ended March 31, 2004 as Compared
With the Three-Month Period Ended March 31, 2003

AVANT reported consolidated net loss of $1,909,400, or $.03 per share, for the first quarter ended March 31, 2004, compared with a net loss of $3,362,200, or $.06 per share, for the first quarter ended March 31, 2003. The weighted average common shares outstanding used to calculate net loss per common share was 69,169,600 in 2004 and 60,468,600 in 2003.

Revenue: Total revenue increased $2,349,000, or 345%, to $3,030,700 for the first quarter of 2004 compared to $681,700 for the first quarter of 2003.

Product development and licensing revenue increased $1,955,000 to $2,124,400 in 2004 from $169,400 in 2003. The increase is primarily due to the one-time recognition of $1 million in revenue from DVC for rPA clinical materials and a license fee of $1 million from AdProTech, Ltd.

In January and June 2003, AVANT was awarded Department of Defense subcontracts from its partner, DVC, that supports the development of an oral, combination vaccine against both anthrax and plague using our vectored vaccine technology. AVANT will be reimbursed by DVC on a time and materials basis for vaccine development research work performed by AVANT in the amount of $3.8 million. Under the agreements, AVANT recognized $846,200 and $477,000 in government contract revenue during the first quarters of 2004 and 2003, respectively, for work performed.

In 2002, we transferred the marketing and distribution of the Megan poultry product line to our partner, Lohmann Animal Health International (LAHI), and AVANT receives a royalty percentage of all Megan®Vac 1 and Megan®Egg product sales. Royalty payments received during the first quarter of 2004 and 2003 totaled $26,400 and $35,300, respectively. Megan®Vac 1 and Megan®Egg are vaccines for use in chickens for protection against multiple strains of *Salmonella* bacteria, which we acquired in connection with our acquisition of Megan.

Operating Expense: Total operating expense increased $828,100, or 19.9%, to $4,994,100 for the first quarter of 2004 compared to $4,166,000 for the first quarter of 2003. The increase in total operating expense in 2004 primarily results from an increase in research and development expense in the first quarter of 2004 due to increased clinical trials costs and contract manufacturing costs.

Research and development expense increased $760,700, or 28.3%, to $3,453,200 in 2004 from $2,692,500 in 2003. The increase in 2004 compared to 2003 is primarily due to an increase in clinical trials costs of $485,000 and contract manufacturing costs of $426,300, both incurred on the TP10 program. The increase in research and development expense further resulted from increases in personnel and related expenses of $35,500, facility-related costs of $56,200 and laboratory supplies and services expenses of $70,600, offset in part by declines in consultancy costs of $44,600 and license fees of $271,500.

Selling, general and administrative expense increased $67,400, or 5.5%, to $1,292,100 in 2004 compared to $1,224,700 in 2003 and is primarily attributed to an increase in personnel and related costs.

Amortization expense of acquired intangible assets was $248,800 in 2004 and 2003.

Investment Income, Net: Interest income decreased $68,100, or 55.8%, to $54,000 for the first quarter of 2004 compared to $122,100 for the first quarter of 2003. The decrease is primarily due to lower interest rates during the first three months of 2004 compared to the first three months of 2003. During the first three months of 2004 and 2003, the average month-end cash balances were $34,128,900 and $20,928,100, respectively. The effective interest rates during the first three months of 2004 and 2003 were 0.96% and 1.28%, respectively.

LIQUIDITY AND CAPITAL RESOURCES

AVANT ended the first quarter of 2004 with cash and cash equivalents of $41,161,500 compared to cash and cash equivalents of $20,251,000 at December 31, 2003.

Net cash used in operating activities decreased to $2,156,100 for the first three months of 2004 compared to $3,077,500 for the first three months of 2003. The decrease is primarily attributed to the decrease in net loss incurred in 2004 compared to 2003, a decrease in accounts receivable and an increase in accounts payable and accrued expenses, offset partly by a decrease in deferred revenue.

Net cash used in investing activities decreased to $244,300 for the first three months of 2004 compared to $2,160,300 for the first three months of 2003. The decrease is primarily due to $2 million of

cash paid in 2003 for certain assets of Universal Preservation Technologies, Inc., offset in part by increased investment in property and equipment in 2004 compared to 2003.

Net cash provided by financing activities was $23,310,900 for the first three months of 2003 compared to net cash used in financing activities of $82,500 for the first three months of 2003. The increase is due primarily to the completion of a direct equity placement in 2004 and an increase in proceeds from the exercise of stock options and warrants.

AGGREGATE CONTRACTUAL OBLIGATIONS

As of March 31, 2004, AVANT had future payments required under contractual obligations and other commitments approximately as follows:

	Total	Less than One Year	1-3 Years	3-5 Years	4-5 Years
Operating lease obligations	$ 8,719,200	$ 2,264,100	$ 5,823,100	$ 421,400	$ 210,600
Licensing obligations	920,000	310,000	355,000	170,000	85,000
Total future obligations	$ 9,639,200	$ 2,574,100	$ 6,178,100	$ 591,400	$ 295,600

In February 2004, we completed a direct equity placement of 8,965,000 shares of common stock to institutional investors at a price of $2.75 per share which generated gross proceeds totaling approximately $24.7 million. Expenses associated with the transaction totaled approximately $1,600,300.

AVANT believes that cash inflows from existing collaborations, interest income on invested funds and our current cash and cash equivalents will be sufficient to meet estimated working capital requirements and fund operations beyond December 31, 2005. The working capital requirements of AVANT are dependent on several factors including, but not limited to, the costs associated with research and development programs, preclinical and clinical studies and the scope of collaborative arrangements. During 2004, we expect to take steps to raise additional capital including, but not limited to, the licensing of technology programs with existing or new collaborative partners, possible business combinations, or the issuance of common stock via private placement and public offering. There can be no assurance that such efforts will be successful.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We own financial instruments that are sensitive to market risk as part of our investment portfolio. Our investment portfolio is used to preserve our capital until it is used to fund operations, including our research and development activities. None of these market-risk sensitive instruments are held for trading purposes. We invest our cash primarily in money market mutual funds and U.S. Government and other investment grade debt securities. These investments are evaluated quarterly to determine the fair value of the portfolio. Our investment portfolio includes only marketable securities with active secondary or resale markets to help insure liquidity. We have implemented policies regarding the amount and credit ratings of investments. Due to the conservative nature of these policies, we do not believe we have material exposure due to market risk. The impact to our financial position and results of operations from likely changes in interest rates is not material.

We do not utilize derivative financial instruments. The carrying amounts reflected in the consolidated balance sheet of cash and cash equivalents, accounts receivables and accounts payable approximates fair value at March 31, 2004 and December 31, 2003 due to the short-term maturities of these instruments.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures.

As required by Rule 13a-15 under the Securities Exchange Act of 1934, within the 90 days prior to the date of this report, we carried out an evaluation under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. In designing and evaluating our disclosure controls and procedures, we and our management recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily was required to apply its judgment in evaluating and implementing possible controls and procedures. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that they believe that, as of the date of completion of the evaluation, our disclosure controls and procedures were reasonably effective to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. We will continue to review and document our disclosure controls and procedures on an ongoing basis, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that our systems evolve with our business.

Changes in Internal Control Over Financial Reporting.

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and15d-15(f) under the Exchange Act) that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 6. Exhibits and Reports on Form 8-K

(a) Exhibits

10.1 Lease Agreement, by and between the Company and the Massachusetts Development Finance Agency, dated as of December 22, 2003, portions of which are subject to a request for confidential treatment

10.2 Security Agreement, by and between the Company and the Massachusetts Development Finance Agency, dated as of December 22, 2003, portions of which are subject to a request for confidential treatment

10.3 Secured Promissory Note: Equipment Loan, by and between the Company and the Massachusetts Development Finance Agency, dated as of December 22, 2003, portions of which are subject to a request for confidential treatment

10.4 Non-Exclusive License Agreement, by and between the Company and AdProTech Ltd., dated as of March 10, 2004, portions of which are subject to a request for confidential treatment

31.1 Certification of President and Chief Executive Officer

31.2 Certification of Senior Vice President and Chief Financial Officer

32.1 Section 1350 Certifications

(b) Reports on Form 8-K

A Form 8-K was filed on February 23, 2004, regarding a press release announcing that AVANT had entered into a securities purchase agreement with institutional investors in a direct equity placement of registered securities of the Company.

SIGNATURES

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

AVANT IMMUNOTHERAPEUTICS, INC.

BY:

Dated: April 30, 2004

/s/ Una S. Ryan
Una S. Ryan, Ph. D.
President and Chief Executive Officer
(Principal Executive Officer)

Dated: April 30, 2004

/s/ Avery W. Catlin
Avery W. Catlin
Senior Vice President, Treasurer
and Chief Financial Officer
(Principal Financial and
Accounting Officer)

EXHIBIT INDEX

Exhibit No.	Description
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31.2	Certification of Senior Vice President and Chief Financial Officer
32.1	Section 1350 Certifications

Confidential Treatment Requested As To Certain Information Contained In This Exhibit

LEASE

from

MASSACHUSETTS DEVELOPMENT FINANCE AGENCY,
Landlord

to

AVANT IMMUNOTHERAPEUTICS, INC.
Tenant

Table of Contents

LEASE

SECTION 1
Reference Information

Section 1.1. Reference Information. Reference in this Lease to any of the following shall have the meaning set forth below:

Date of this Lease: December 22, 2003

Premises: The portion (shown on Exhibit A) of the building (the "Building") on the lot (the "Lot") shown on Exhibit B, situated at 151 Martine Street, Fall River, Massachusetts.

Landlord:	Massachusetts Development Finance Agency, a body politic and corporate and a public instrumentality of the Commonwealth of Massachusetts pursuant to Massachusetts General Laws, Chapter 23G
Address of Landlord:	75 Federal Street, Boston, Massachusetts 02110, Attn: General Counsel
Landlord's Payment Address:	Massachusetts Development Finance Agency P.O. Box 55073 Boston, MA 02205
Tenant:	Avant Immunotherapeutics, Inc., a Delaware corporation
Address of Tenant:	119 Fourth Avenue, Needham, MA 02494
Original Term Commencement Date:	As of the date of this Lease
Original Term Expiration Date:	The day before the seventh (7^{th}) anniversary of the Original Term Commencement Date except if the Original Term Commencement Date occurs on a day that is not the first day of the month then the Original Term Expiration Date shall instead end on the last day of the month in which the seventh (7^{th}) anniversary of the Original Term Commencement Date occurs.

Extension Terms:	Two (2) separate consecutive periods of five (5) years each.
Premises Square Footage:	11,756 rentable square feet.

Building Square Footage:	***Confidential Treatment Requested as to this Information*** rentable square feet, as the same may be adjusted as provided in the definition of "Tenant's Proportionate Fraction" set forth below in this Section 1.
Annual Fixed Rental Rate:	(i) For the nine (9) month period commencing on the Original Term Commencement Date: ***Confidential Treatment Requested as to this Information*** (ii) For the period commencing on the day after the end of such initial nine (9) month period and ending on the day before the fifth (5^{th}) anniversary of the Original Term Commencement Date (the "Second Rent Period") except that if the day before such fifth anniversary shall not be the last day of a month, the Second Rent Period shall instead end on the last day of the month in which such fifth (5^{th}) anniversary occurs: $***Confidential Treatment Requested as to this Information*** (iii) During the remainder of the Original Term and during each applicable Extension Term, commencing as of the first day after the Second Rent Period (the "First Adjustment Date") and annually as of each anniversary of the First Adjustment Date (each an "Adjustment Date"), the Annual Fixed Rental Rate shall be calculated for the immediately following twelve (12) month period that begins with the applicable Adjustment Date as follows: An annual amount equal to the product of the Annual Fixed Rental Rate payable for the then preceding twelve (12) month period multiplied by the lesser of (a) 1.03 or (b) the "Increase Factor". For the purposes of this Lease, the term "Increase Factor" shall mean a fraction, the numerator of which shall be the "Index" (defined below) as issued for the quarter that immediately precedes the applicable Adjustment Date and the denominator of which shall be the Index as issued for the same quarter in the year immediately prior to the applicable Adjustment Date. Notwithstanding the foregoing, if the numerator is less than the denominator, then the Increase Factor shall be one (1). "Index" shall mean the Consumer Price Index for Urban

	Wage Earners and Clerical Workers, Boston, Mass., All Items – Series A (1982-84=100) issued by the Bureau of Labor Statistics of the United States Department of Labor. In the event that the Index shall hereafter be converted to a different standard reference base or otherwise revised, the determination of the Increase Factor shall be made with the use of such conversion factor, formula, or table for converting the Index as may be published by the Bureau of Labor Statistics or, if said Bureau shall not publish the same, then with the use of such conversion factor, formula, or table as may be published by Prentice Hall, Inc., or failing such publication, by any other nationally recognized publisher of similar statistical information. In the event that the Index shall cease to be published, then, for the purposes of determining the Increase Factor, there shall be substituted for the Index such other Index as Landlord and Tenant shall agree upon, and, if they are unable to agree within ninety (90) days after the Index ceases to be published, such matter shall be determined in Boston by arbitration in accordance with the Rules of the American Arbitration Association.
Permitted Uses:	Research and development of vaccines, biotechnology-related manufacturing and related office uses.
Public Liability Insurance Limit:	Bodily Injury and Property Damage: Combined single limit of $5,000,000, or greater amount as reasonably required by Landlord from time to time.
Tenant's Proportionate Fraction:	***Confidential Treatment Requested as to this Information***, representing a fraction, the numerator of which shall be the rentable square footage of the Premises and the denominator of which shall be the rentable square footage of the Building. In the event of any reconfigurations, additions, exclusions or modifications to the Building or any part thereof that changes the rentable area of the Building, Landlord may reasonably redetermine Tenant's Proportionate Fraction to reflect such change in the rentable area of the Building on the condition that such redetermination is calculated in substantially the same manner and method as the Premises and the Building were originally measured for purposes of this Lease.

Specialized Tenant Improvement Allowance Fee (See Section 4.3):	$***Confidential Treatment Requested as to this Information***
Broker:	Whelan Associates, LLC

Section 1.2. Exhibits. The following Exhibits are attached to and incorporated in this Lease:

Exhibit A:	Plan of Premises
Exhibit B:	Description of Lot
Exhibit C:	Activity and Use Limitation
Exhibit D:	Rules and Regulations
Exhibit E:	List of Approved Specialized Tenant Improvements
Exhibit F:	Tenant's Space Plan
Exhibit G:	Plan of North Parking Areas
Exhibit H:	Exclusions from Common Area Maintenance Expenses
Exhibit I:	Letter from UMASS Dartmouth Regarding Conference Center Rental Fees

SECTION 2
Premises and Term

Section 2.1. Premises. Landlord hereby leases and demises the Premises to Tenant and Tenant hereby leases the Premises from Landlord, and subject to and with the benefit of (i) the Kerr Mill Revitalization and Development Plan, prepared by the Cecil Group, Inc. dated September, 1999 and approved by the City of Fall River on September 7, 1999, as amended; (ii) the Activity and Use Limitation for the Lot approved by Massachusetts Department of Environmental Protection and incorporated by reference in Exhibit C; (iii) all easements, restrictions and encumbrances of record; (iv) all laws including without limitation the Fall River Ordinance Division 7 Research and Development Overlay District Regulations Sections 86-385 through 86-389 and all amendments thereto; and (v) Landlord's rules and regulations for the Building and Lot attached hereto as Exhibit D and the rules and regulations adopted from time to time by Landlord and/or the entire South Coast Research & Technology Park in which the Lot is located, including, without limitation, any declaration of covenants and restrictions that may hereafter be imposed upon the South Coast Research & Technology Park (the "Park") (collectively all of the foregoing in this clause (v), the "Rules and Regulations" and collectively all of the documents and agreements described in clauses (i) through (v) of this Section 2.1, the "Use Documents"); provided that a subsequently adopted Rule and Regulation shall not be binding on Tenant to the extent the same is contrary to Tenant's rights under this Lease. The Premises shall include the ceiling, floor, interior walls, the inner surface of the demising walls, the inner surface of exterior windows, any space in the Premises used for shafts, stacks, pipes, conduits, fan rooms, ducts, electric or other utilities, sinks or other Building facilities (except to the extent that the same serve other tenant(s)' premises), and the entry doors (and related glass and finish work) to the Premises and all fixtures, which are and shall remain Landlord's property

unless otherwise specified in writing. In addition to Tenant's repair and maintenance obligations under Section 10.2, Tenant shall maintain and repair in good condition the emergency exit door (and associated "panic bar alarm system") (collectively, the "Emergency Door") that is located at the end of one of the hallways of the Premises and which opens to an emergency exit stair well that connects to the first floor of the Building (the "Emergency Exit Stairwell"). Tenant agrees that, subject to Landlord's access rights described elsewhere in this Lease, Tenant shall keep the Emergency Door secure and Tenant and its employees shall only use the Emergency Door and the Emergency Exit Stairwell for emergency purposes and not as a non-emergency means of access and egress to or from the Premises.

Subject to the Landlord's rights set forth in the last sentence of the next paragraph and in Section 14.4, and subject to the Use Documents, Tenant shall have the right to use, in common with other tenants of the Building and Landlord and as appurtenant to Tenant's use of the Premises, the Building lobbies and entrances, elevators, exterior walkways, driveway, roadways, sidewalks and the parking areas of the Building and Lot for access and egress to and from the Premises and the common bathrooms in the Building.

Landlord shall have the right to place in the Premises (but in such manner as to reduce to a minimum interference with Tenant's use of the Premises), sun control devices, utility lines, equipment, stacks, ducts, pipes, conduits and the like. Should Tenant install any hung ceilings or walls in the Premises pursuant hereto, Tenant shall install and maintain, as Landlord may require, proper access panels therein to afford access to any facilities above the ceiling or within or behind the walls. In addition to Landlord's rights under Section 14.14 with respect to parking spaces and parking areas, Landlord reserves the right to construct additional buildings or other improvements on or under the Lot and/or the "North Parking Areas" (as such term is defined in Section 14.14) and modify, restrict, regulate and/or remove any portion of the common areas on the Lot and/or the North Parking Areas or in the Building at any time and to otherwise regulate the use thereof provided and only to the extent any such additions, modifications, restrictions, regulations and other changes do not unreasonably interfere with Tenant's use of or access to the Premises or reduce (by more than a de minimis amount) the quantity of parking available to Tenant.

Section 2.2. Term. TO HAVE AND TO HOLD for an original term (the "Original Term" or the "Lease Term") beginning on the Original Term Commencement Date and continuing until the Original Term Expiration Date, unless sooner terminated or extended as hereinafter provided.

Section 2.3. Option to Extend Original Term For Extension Terms. Tenant shall have two (2) separate options to extend the Lease Term for an additional five (5) year period (i.e., for a total, if both such options are exercised as provided herein, of ten successive years beyond the Original Term) beyond the Original Term or the First Extension Term, as the case may be (each five year period being referred to herein as an "Extension Term"), provided (i) Tenant shall give notice to Landlord of its exercise of such option not less than six (6) months prior to the expiration of the Original Term or the first Extension Term, as the case may be, (ii) no default beyond any applicable grace period in the obligations of Tenant under this Lease shall exist at the time each such notice is given, and (iii) at the time

each such option is exercised the original Tenant hereunder, a permitted assignee of Tenant under Section 10.14 or any "Approved Entity" (as such term is defined in Section 10.14) shall be in occupancy of at least 50% of the entire Premises then demised hereunder. All of the terms and provisions of this Lease shall be applicable during each Extension Term except that Tenant shall have no option to extend the Lease Term beyond the second Extension Term.

SECTION 3
As Is Condition of Premises; Option to Purchase

Section 3.1. As Is Condition of Premises. Tenant agrees to accept the Premises in its present "as is" condition, and, subject to Landlord's obligation to disburse the Specialized Tenant Improvement Allowance in accordance with the terms and conditions of this Lease, Landlord shall have no obligation to perform any work or construction to prepare the same for Tenant's occupancy or otherwise. Tenant has inspected the Premises and the Building and has determined that both the Premises and the Building (and the systems) therein are functional for Tenant's proposed operations. Subject to the provisions of Section 10.4 regarding Landlord's approval of alterations and additions, to the extent that Tenant subsequently determines that it needs to install additional Building equipment or systems or to modify existing Building equipment and systems, Tenant shall perform the same at Tenant's sole expense. If Tenant shall desire to perform any other work or construction, the same shall be done only in accordance with this Lease. Landlord represents and warrants to Tenant that, to the best of Landlord's knowledge, as of the Commencement Date, the Building and the Lot, including all common areas located thereon, are in material compliance with all of the provisions of the terms, provisions, covenants and restrictions contained in any of the Use Documents referenced in Section 2.1 of this Lease and are in material compliance with all applicable building and zoning codes, including without limitation, the Americans with Disabilities Act and the regulations of the Massachusetts Architectural Access Board.

Section 3.2. ***Confidential Treatment Requested as to this Information***

SECTION 4
Fixed Rent; Specialized Tenant Improvements Allowance; Allowance Rent

Section 4.1. The Fixed Rent. Tenant shall pay rent ("Fixed Rent") to Landlord at Landlord's Payment Address or at such other place or to such other person or entity as Landlord may by notice to Tenant from time to time direct, at the applicable Annual Fixed Rental Rate set forth in Section 1, in equal installments equal to 1/l2th of the Annual Fixed Rental Rate in advance on the first day of each calendar month included in the term, and for any portion of a calendar month at the beginning or end of the term or the Second Rent Period, at that rate payable in advance for such portion.

Tenant shall pay, as Additional Rent, a late charge equal to the greater of (i) $100 or (ii) five percent (5%) of the amount of any Fixed Rent or other charges not paid within five (5) days of when due hereunder.

Section 4.2. Specialized Tenant Improvement Allowance. In order to assist Tenant with Tenant's desire to install the "Approved Specialized Tenant Improvements" (as such term is defined in Section 10.4), Landlord shall provide Tenant with an allowance, subject to the provisions of such Section 10.4 and Section 4.3 below, up to the aggregate amount of ***Confidential Treatment Requested as to this Information*** (the "Specialized TI Allowance"), subject to increase as hereinafter set forth, which monies shall be disbursed to Tenant not more than once monthly (in one or more separate increments of not less than ***Confidential Treatment Requested as to this Information***) (each separate increment being referred to herein as a "Disbursement Increment") for its costs of purchasing and installing the Approved Specialized Tenant Improvements, provided that Tenant shall have the right to use up to 5% (i.e., ***Confidential Treatment Requested as to this Information***) of the Specialized TI Allowance for Tenant's costs of designing the Approved Specialized Tenant Improvements. In no event, however, shall Landlord be obligated to disburse any portion of the Specialized TI Allowance (i) after the first twelve (12) months of the Original Term or (ii) if Tenant shall then be in default under this Lease beyond applicable notice and cure periods. Subject to the above, the applicable portion of the Specialized TI Allowance shall be disbursed to Tenant thirty (30) days after Tenant's presentation to Landlord of (i) detailed invoices supporting such purchase and installation costs which invoices shall reasonably itemize such costs on a line item basis, (ii) evidence of such installation, (iii) lien waivers from the contractors installing the same, (iv) an AIA reimbursement form signed by Tenant's contractor and architect and (v) other items reasonably requested by Landlord (collectively, "Tenant's Reimbursement Request"). Each Tenant Reimbursement Request shall be subject to Landlord's approval and the approval of "Landlord's Construction Consultant." Landlord shall have the right to engage the services of a construction management consultant ("Landlord's Construction Consultant") who shall review and approve the completion status of Tenant's installation of Approved Specialized Tenant Improvements and each Tenant's Reimbursement Request. Tenant agrees to reimburse Landlord an amount equal to the lesser of (i) 50% of the total, bona fide, out-of-pocket, third party costs paid by Landlord to Landlord's Construction Consultant and which costs are directly related to Landlord's Construction Consultant's review of Tenant's installation of the Approved Specialized Tenant Improvements and Tenant Reimbursement Requests (the "Reimbursable Costs"), or (ii) ***Confidential Treatment Requested as to this Information*** of the Reimbursable Costs. Tenant's reimbursement of the Reimbursable Costs shall be paid by Tenant on the first day of the month following the month in which Tenant receives an invoice from Landlord together with a copy of the bill from Landlord's Construction Consultant which bill itemizes the work performed and time spent by Landlord's Construction Consultant in reviewing the installation of the Approved Specialized Tenant Improvements and each Tenant Reimbursement Request. In addition, each invoice from Landlord shall evidence the aggregate total of all amounts paid by Landlord which constitute Reimbursable Costs and Tenant shall at no time be obligated to reimburse Landlord an amount that would result in Tenant having paid more than 50% of the aggregate total of the Reimbursable Costs or $20,000.00, whichever is less.

In order to compensate Landlord for Landlord's administrative costs in arranging for, and disbursing the Specialized TI Allowance, Tenant shall pay to Landlord the Specialized Tenant Improvement Allowance Fee on the date hereof.

In the event that Tenant does not draw down upon the entire ***Confidential Treatment Requested as to this Information*** loan of even date herewith from Landlord to Tenant (the "Equipment Loan") as evidenced by the "Equipment Loan Documents" (as such term is defined in Section 10.14), Tenant shall have the right, by written notice given to Landlord, to draw upon and utilize up to the lesser of (i) ***Confidential Treatment Requested as to this Information*** or (ii) the undrawn upon amount of the Equipment Loan, as part of the "Specialized TI Allowance" described above in this Section 4.2, whereupon (A) the maximum amount of the Equipment Loan shall be reduced by the amount that shall be utilized as an addition to the "Specialized TI

Allowance" and (B) the aggregate amount of the "Specialized TI Allowance" shall be increased by such corresponding amount. Notwithstanding anything in this Lease or the Equipment Loan Documents to the contrary, any undisbursed amount of the Equipment Loan which is added to the "Specialized TI Allowance" pursuant to this Section 4.2 may be drawn upon and used by Tenant in the same manner as set forth in this Section 4.2 and shall be repaid by Tenant to Landlord subject and pursuant to the terms of Section 4.3 of this Lease and not pursuant to the Equipment Loan Documents.

Section 4.3. Reimbursement To Landlord Of Specialized Tenant Improvement Allowance. For each Disbursement Increment disbursed to Tenant under Section 4.2, Tenant shall pay to Landlord at Landlord's Payment Address, as Additional Rent, beginning on the first day of the month following the month in which the applicable Disbursement Increment shall have been disbursed to Tenant and continuing for the first day of the month in each of the following months occurring during the Lease Term and during each applicable Extension Term until such Disbursement Increment has been repaid in full, an amount equal to the monthly payment required to pay in full, on a direct reduction basis, an amount equal to the applicable Disbursement Increment disbursed to Tenant by Landlord under Section 4.2, with interest paid in advance at the rate of 5.5% per annum of and using an amortization period of fifteen (15) years. If Tenant shall request that the Specialized TI Allowance be disbursed in more than one Disbursement Increment, then Tenant shall be obligated to make payments to Landlord under this Section 4.3 on multiple reimbursement schedules (i.e., each Disbursement Increment shall be repaid on a separate reimbursement schedule for that particular Disbursement Increment); provided that, without changing the actual monthly payment due from Tenant with respect to the repayment of an applicable Disbursement Increment, Landlord shall submit a single invoice each month to Tenant that itemizes and consolidates the Specialized Tenant Allowance Reimbursement Payments that will be due from Tenant on the first day of the following month. (The payments under this Section 4.3 shall be referred to collectively as the "Specialized Tenant Allowance Reimbursement Payments".) ***Confidential Treatment Requested as to this Information***

SECTION 5
Real Estate and Other Taxes

Section 5.1 Real Estate Taxes. As Additional Rent, Tenant shall pay to Landlord at Landlord's Payment Address Tenant's Proportionate Fraction of (i) all taxes, assessments (special, betterment or otherwise), levies, fees, water and sewer rents and charges, if any, and all other government levies and charges, general and special, ordinary and extraordinary, foreseen and unforeseen, which are, at any time prior to or during the term hereof, imposed or levied upon or assessed against Landlord for the Lot or Building or any rent or other sums payable by any tenants or occupants thereof (collectively "taxes and assessments" or if singular "tax or assessment") and (ii) 33.33% (the "Building's Share") of all taxes and assessments for the North Parking Areas and the common systems of the Park, including, without limitation, the sewer pumping station; provided that with respect to the taxes and assessments, if any, solely attributable to the sewer pumping station, prior to calculating the Building's Share of such amount, such taxes and assessments solely attributable to the sewer pumping station shall be reduced by the amount, if any, of such taxes and assessments paid by the landowner abutting the Park. If and to the extent that a common system is significantly enhanced for a particular lot within the Park but not for the lots generally, Landlord shall make an equitable adjustment, in Landlord's reasonable discretion, in allocating the taxes (if any) assessed on such enhanced common system among the lots within the Park to account for the disproportionate benefit of such enhancement to the particular lot.

Landlord shall elect to pay betterment assessments over the longest period permitted by law, and only the installments thereof (and interest thereon) becoming due during the term shall be payable by Tenant hereunder.

All payments shall be made by Tenant on the first day of the month following the month in which Landlord's invoice therefor shall have been received by Tenant.

Nothing herein shall, however, require Tenant to pay any income taxes, excess profits taxes, excise taxes, franchise taxes, estate, succession, inheritance or transfer taxes assessed to Landlord, provided, however, that if at any time during the term the present system of ad valorem taxation of real property shall be changed so that in lieu of the whole or any part of the ad valorem tax on real property, or in lieu of increases therein, there shall be assessed on Landlord a capital levy or other tax on the gross rents received with respect to the Building or Lot or a federal, state, county, municipal, or other local income, franchise, excise or similar tax, assessment, levy or charge (distinct from any now in effect) measured by or based, in whole or in part, upon gross rents, then Tenant's Proportionate Fraction of any and all of such taxes, assessments, levies or charges, to the extent so measured or based ("Substitute Taxes"), shall be payable by Tenant, provided, however, Tenant's obligation with respect to the aforesaid Substitute Taxes shall be limited to the amount thereof as computed at the rates that would be payable if the Building and Lot were the only property of Landlord.

Section 5.2. Tenant's Obligation To Pay Other Taxes. Tenant shall be responsible to pay directly to the City of Fall River, as Additional Rent, for one hundred percent (100%) of

any taxes imposed or assessed by the City of Fall River against Tenant's leasehold interest under this Lease or against any of Tenant's equipment, trade fixtures or other personal property.

SECTION 6
Insurance.

Section 6.1. Tenant's Insurance. Tenant shall, as Additional Rent, maintain throughout the Term the following insurance:

(a) Commercial general liability insurance for any injury to person or property occurring on the Premises or the Building or Lot or elsewhere in the Park (including the North Parking Areas), naming as insureds Tenant, and naming Landlord and such persons, including, without limitation, Landlord's managing agent, as Landlord shall designate from time to time as additional insureds, in amounts which shall, at the beginning of the Term, be at least equal to the limits set forth in Section 1, and, from time to time during the term, shall be for such higher limits as are reasonably required by Landlord;

(b) Worker's compensation insurance with statutory limits covering all of Tenant's employees working at the Premises; and

(c) If and to the extent Tenant owns, uses or leases vehicles in connection with its business activities, business auto liability coverage which insures against bodily injury and property damage claims arising out of the ownership, maintenance, or use of "any auto." A minimum of $1,000,000.00 combined single limit accident will apply.

Section 6.2. Landlord's Insurance. At all times during the Term, Landlord will maintain or cause to be maintained the following insurance: (a) all-risk fire and extended coverage casualty insurance covering damage to the Premises, including without limitation, the Approved Specialized Tenant Improvements and the Building and the Lot in an amount equal to 100% of the replacement cost thereof, (b) commercial general public liability insurance covering occurrences on or about the common areas of the Building or the Lot (and naming Tenant as an additional insured thereunder), (c) loss of "rental value" insurance in an amount equal to not less than a one (1) year period, and (d) workers compensation and employer's liability insurance to the extent required by state law. Upon request by Tenant, Landlord shall provide certificates of insurance to Tenant evidencing that Landlord has all of the coverages required herein.

Section 6.3. Tenant Reimbursement of Insurance Taken Out by Landlord. As Additional Rent, Tenant shall from time to time reimburse Landlord, on the first day of the month following the month in which Tenant receives Landlord's invoice, for Tenant's Proportionate Fraction of (i) Landlord's costs incurred in providing any insurance for the Building and the Lot and (ii) for the Building's Share of any insurance carried by Landlord for the Park except that Tenant shall be responsible to pay for 100% of the insurance costs for the Approved Specialized Tenant Improvements under clause (a) of Section 6.2. Landlord shall allow Tenant to participate with Landlord in the negotiation with Landlord's insurer of the premiums for the Approved Specialized Tenant Improvements, and in the

event that Tenant shall not be reasonably satisfied with the amount of such premiums, Tenant shall have the right to procure the insurance for the Approved Specialized Tenant Improvements with an insurance company licensed to do business in Massachusetts reasonably approved in advance by Landlord, provided that Landlord is named as the insured party and the loss payee on such insurance policy and Landlord is granted the exclusive right to negotiate and receive the proceeds of such insurance, and Tenant shall have no right to receive the proceeds of such insurance or negotiate the settlement of the same. Tenant's payment for the amounts described in the first sentence of this Section 6.3 shall be reduced to the extent such costs are paid by Tenant as common area maintenance expenses under Section 7.6 of this Lease. During the Lease Term, Landlord shall insure the Building for laboratory uses, and Tenant shall reimburse Landlord for any increased costs incurred by Landlord in providing such insurance to the extent attributable to any special endorsement or increase in premium resulting from the business or operations of Tenant or any special or extraordinary hazards resulting therefrom, in either case in excess of the costs that, but for Tenant's particular use of the Premises, would have been incurred by Landlord to insure the Building for laboratory uses; provided, however, that, without detracting from Tenant's obligation to reimburse Landlord for such amounts, Landlord shall permit Tenant the opportunity to participate with Landlord in the discussions and negotiations with Landlord's insurance company regarding such costs.

Section 6.4. Requirements Applicable to Insurance Policies. All policies for insurance required under the provisions of Section 6.1 and Section 6.2 shall be obtained from responsible companies qualified to do business in the Commonwealth of Massachusetts and in good standing therein, which companies and the amount of insurance allocated thereto shall be subject to the other party's reasonable approval. Each party agrees to furnish the other party with insurance company certificates of all such insurance therefor required by such party prior to the beginning of the Term hereof and of each renewal policy at least thirty (30) days prior to the expiration of the policy it renews, and each party shall furnish copies of the policies to the requesting party upon the requesting party's request. Each such policy shall be noncancellable with respect to the interest of Landlord and its mortgagees without at least thirty (30) days' prior written notice thereto.

Section 6.5. Waiver of Subrogation. All insurance which is carried by either party with respect to the Premises or to furniture, furnishings, fixtures or equipment therein or alterations or improvements thereto, whether or not required, shall include provisions or endorsements which either designate the other party as one of the insured or deny to the insurer acquisition by subrogation of rights of recovery against the other party to the extent such rights have been waived by the insured party prior to occurrence of loss or injury. On reasonable request, each party shall be entitled to have certificates of policies containing such provisions. Having obtained such clauses or endorsements, each party hereby agrees that it will not make any claim against or seek to recover from the other or its agents or employees for any loss or damage to its property or the property of others from causes which are covered or required under this Lease to be covered by such party's insurance regardless of the cause or origin of such loss or damage, including without limitation, the negligence of such other party or its agents or employees.

SECTION 7
Utilities and Services; Common Area Maintenance Expenses

Section 7.1. Utilities and Services. As part of Tenant's initial work at the Premises, Tenant shall install a separate meter, at Tenant's expense, to measure all of Tenant's electricity usage at the Premises. Tenant shall pay the utility company directly for all electric service to the Premises and shall pay to the utility companies directly for all telephone and telecommunications service to the Premises and for any other separately metered utilities to the Premises. Landlord shall separately meter or sub-meter all of the other tenant spaces in the Building for electricity usage.

Section 7.2. Sub-Metering. As part of Tenant's initial work at the Premises, Tenant shall install sub-meters, at Tenant's sole cost and expense, to measure gas and water consumption for the Premises. Tenant shall pay Landlord the cost of such utilities based on Tenant's consumption as measured by such submeter. All payments due to the Landlord under the prior sentence of this Section 7.2 shall constitute Additional Rent and shall be paid by Tenant on the first day of the calendar month following Tenant's receipt of Landlord's invoice for such usage. Landlord may elect to install separate meters for all other utilities to the Premises and the costs of installing, maintaining and reading such meters shall be borne by Tenant and utility services measured thereby shall be paid by Tenant directly to the utility company or other provider. Landlord shall also separately meter or sub-meter all of the other tenant spaces in the Building for gas usage and water usage.

Section 7.3. Non-Separately Metered or Submetered Metered Utilities. Tenant shall pay to Landlord Tenant's Proportionate Fraction of all charges for all non-separately metered or non-submetered water, sewer, gas, electricity and other utilities or services (excluding costs related to the sewer pumping station which costs are reimbursed pursuant to Section 7.6 of this Lease) used or consumed in the common areas of the Building or at the Lot or elsewhere in the Park, and not in any leasable areas in the Building or the Park, whether called charge, tax, assessment, fee or otherwise, including, without limitation, water

and sewer use charges and taxes, if any, such charges to be paid on the first day of the calendar month following Tenant's receipt of Landlord's invoice therefor. If Tenant's use of any of such utilities or services shall be disproportionately excessive, Tenant shall pay such share of the same as Landlord may reasonably consider appropriate.

Section 7.4. Connection and Use of Utility Equipment. Tenant shall maintain, repair and replace all telephone, information system and other utility lines and equipment contained within and exclusively serving the Premises (together with any lines and equipment that are located outside of the Premises that are installed by Tenant) together with any such lines and equipment from the point of any common connection to the Premises, and keep the same in good working order, condition and repair. Tenant shall not use any equipment or fixtures so as to exceed the safe and lawful capacity of any utility equipment or lines serving the same. The alteration, replacement or connection of any utility equipment and lines shall be subject to the requirements of Section 10.4 hereof. Subject to the rights of Landlord and other tenants to access and use the same and to Tenant's obligation to maintain and repair its own connections to the same and to remove such connections at the expiration or sooner termination of the Term (and to perform any

restoration of the same caused by such installation, use and removal), Landlord shall permit Tenant to access and connect to the utility risers, conduits, wires and feeders in the Building to enable Tenant to procure the utilities necessary for its business operations; provided that Tenant's access and connections shall not exceed Tenant's Proportionate Fraction of the total capacity of such items.

Section 7.5. Interruption of Services. Landlord shall not be liable for any failure to furnish, or interruption in furnishing, any of the services or utilities described in this Section, due to any cause or for any other reason, and, in such event, Tenant shall not be entitled to any damages nor shall any failure or interruption abate or suspend Tenant's obligation to pay rent under this Lease or constitute a constructive eviction of Tenant or entitle Tenant to terminate this Lease. Further, if any governmental authority or public utility promulgates or revises any applicable law, ordinance, rule or regulation, or issues mandatory or voluntary controls relating to the use or conservation of energy, water, gas, light or electricity, the reduction of emissions, or the provision of any other utility or service, Landlord may take any reasonably appropriate action to comply with the same and Tenant's obligations hereunder shall not be affected thereby. Notwithstanding any terms and provisions of this Lease to the contrary, if (i) an interruption or stoppage of an "Essential Service" (as said term is hereinafter defined) shall occur, except any of the same due to any act or neglect of Tenant or Tenant's agents, employees, contractors or invitees or any person claiming by, through or under Tenant (any such interruption or stoppage of an Essential Service being hereinafter referred to as a "Service Interruption"), and (ii) such Service Interruption continues for more than seven (7) Days after Landlord shall have received notice thereof from Tenant and such Service Interruption is within Landlord's reasonable control to remedy and (iii) as a result of such Service Interruption, the conduct of Tenant's normal operations in the Premises are materially and adversely affected, then there shall be an abatement of one day's Fixed Rent and Additional Rent for each day during which such Service Interruption continues after such seven (7) day period; provided, however, that if any part of the Premises is reasonably useable for Tenant's normal business operations or if Tenant conducts all or any part of its operations in any portion of the Premises notwithstanding such Service Interruption, then the amount of each daily abatement of Basic Rent and additional rent shall only be proportionate to the nature and extent of the interruption of Tenant's normal operations or ability to use the Premises. For purposes hereof, the term "Essential Services" shall mean the following services: water and sewer/septic service, HVAC service (but not any HVAC service to be provided by Tenant's supplemental equipment), electricity and access to the Premises.

Section 7.6. Common Area Maintenance Expenses. Tenant shall pay to Landlord, as Additional Rent, Tenant's Proportionate Fraction of (i) Landlord's costs and expenses incurred under Section 9 and (ii) the Building's Share of the costs and expenses incurred in connection with the maintenance, repair and snowplowing expenses for the North Parking Areas and for the common utility systems and equipment serving the Park, including, without limitation, the storm drainage system, including a reasonable management fee payable to Landlord, except that with respect to the costs and expenses relating to the sewer pumping station serving the Park, Tenant's share of these costs and expenses shall instead be based on and limited to Tenant's water consumption for its operations at the Premises in comparison to the overall water consumption at the Park and at the lot adjacent to the Park

utilizing such sewer pumping station for the same period of measurement by the other parties and functions served by the sewer pumping station (collectively, the costs and expenses described in this sentence shall be referred to herein as "common area maintenance expenses"). Such common area maintenance expenses for each year shall include the costs of repairs and replacements performed by Landlord in accordance with sound building management practices and shall include the "Pass-Through Capital Expenditures" described in Item No. 3 of Exhibit H hereto. Except to the extent provided otherwise in Exhibit H, in no event shall common area maintenance expenses include any of the costs listed on Exhibit H. To the extent repairs or maintenance covered by Section 9 are required due to Tenant's negligence or willful misconduct, Landlord shall effect such repairs or maintenance at Tenant's sole expense.

SECTION 8
Payments on Account

Section 8.1. Payments on Account. Tenant shall pay to Landlord at Landlord's Payment Address on account as Additional Rent, on the first day of each month during the term, such amounts as Landlord may reasonably determine from time to time will be sufficient to provide in the aggregate funds adequate to pay all amounts to be paid by Tenant pursuant to Sections 5, 6 and 7, as and when such amounts become due and payable. Landlord shall periodically account (but no more than once a year) to Tenant for such payments and any balance owed by Tenant shall be paid to Landlord on the first day of the month following the receipt of Landlord's bill therefor. Any excess paid by Tenant shall, at Landlord's option, either be paid by Landlord to Tenant or credited against the next installment of Fixed Rent or Additional Rent becoming due. If this Lease shall terminate on a day other than the last day of a billing year, the amount of Tenant's payments under this Section 8 for such billing year shall be prorated on the basis of the number of days of such partial billing year, and after termination of the Lease, the payments shall be compared to the actual expenses and the above reconciliation and payments shall be made as is set forth in this Section 8.1.

SECTION 9
Landlord's Covenants

Section 9.1. Building Maintenance. Subject to Sections 10 and 11, Landlord shall maintain and repair the exterior walls (exclusive of glass and doors and exclusive of the interior surfaces of the exterior walls, all of which Tenant shall maintain and repair), roof, foundation, structural supports of the Building, the vapor barrier and sub-slab venting system in the Building, downspouts, and the common Building systems including, without limitation, the common HVAC, electrical and plumbing systems and the common fire/life systems serving the Building and the Premises in good working order, repair and condition

except for reasonable wear and tear and except that, notwithstanding any other terms or provisions of this Lease to the contrary, in no event shall Landlord be obligated to maintain, repair or replace any portion of the "Controlled Areas" (as such term is defined in Section

10.6) or any equipment, systems, utility lines, plumbing, wiring or other items located in, or directly above or below, the Controlled Areas, except for non-Tenant installed items located directly above or below the Controlled Areas that can be reasonably accessed by Landlord without entering into or affecting the Controlled Areas.

Section 9.2 Common Area Lot Maintenance. Subject to Sections 10 and 11, Landlord shall maintain and repair, in good working order, repair and condition (subject to reasonable wear and tear), the roads, sidewalks, landscaping, drainage (including without limitation catch basins and detention ponds), the sewer pumping station, common area lighting facilities, storm sewers, sanitary sewers and water main and lines located on the Lot, if any, and the other common areas on the Lot, including the North Parking Areas and other parking areas and Landlord's signs, and shall clean and provide snowplowing for the same.

Section 9.3 Covenant to Provide Services. Landlord shall furnish to the Premises and the common areas of the Building, the following services and utilities: (a) a reasonable amount of water from the City of Fall River; (b) heat and air conditioning commensurate with office buildings in the Fall River area for the use and occupation of the Premises during the building hours of Monday to Friday, 8 a.m. to 5:30 p.m. and Saturday, 9 a.m. to 1:00 p.m. provided that Tenant shall be responsible to deliver any supplemental heating and air conditioning for Tenant's specific uses; (c) elevator service by nonattended automatic elevators, if applicable; and (d) so long as the utility company is providing the same, electricity for lighting, convenience outlets and other customary uses. In the event that Tenant desires to install additional equipment and components necessary to increase the capacity of utilities for the Premises, subject to obtaining Landlord's prior written approval for such installations (and plans and specifications for the same), which approval shall not be unreasonably conditioned, withheld or delayed, Tenant shall have the right to perform such installations at its sole cost and expense, subject to the provisions of Section 10.9 of this Lease.

Section 9.4 AUL and Order of Conditions. Landlord shall, at its sole cost and expense, without including the costs for the same in common area maintenance expenses, comply with and perform its obligations, if any, under the Activity and Use Limitation and the Order of Conditions that have been recorded against the Lot and the Park.

SECTION 10
Tenant's Covenants

Section 10.1. Use. Tenant shall use the Premises only for the Permitted Uses and shall from time to time procure all licenses and permits necessary therefor at Tenant's sole expense. In no event shall Tenant use the Premises for general manufacturing, warehousing, wholesaling or retail uses. Landlord represents and warrants that, according to the Fall River Zoning Ordinance, biotechnology uses are permitted as of right under the Fall River Ordinance Division Research and Development Overlay District Regulations Sections 86-385 through 86-389.

Section 10.2. Repair and Maintenance. Except as otherwise provided in Sections 9 and 11, Tenant shall keep and maintain the Premises, including (a) all portions of the plumbing, electrical, heating, air conditioning and other systems installed by Landlord (but only to the extent located within the Premises and exclusively serving the same) and (b) all of the Approved Specialized Tenant Improvements (and any other systems, equipment and appurtenances installed by Tenant, whether located within the Premises or not), in good order, condition and repair and in at least as good order, condition and repair as they are in on the Commencement Date or may be put in during the Term, reasonable use and wear and damage by casualty and loss by taking only excepted. In addition to the above, Tenant shall keep and maintain, at Tenant's sole cost and expense, all portions of the "Controlled Areas" (as such term is defined in Section 10.6) (and all equipment, systems, utility lines, plumbing, wiring or other items located in, or directly above or below, the Controlled Areas, except for non-Tenant installed items located directly above or below the Controlled Areas that can be reasonably accessed by Landlord without entering or affecting the Controlled Areas) in good order, condition and repair, and in at least as good order, condition and repair as they are in on the Commencement Date or may be put in during the Term, reasonable use and wear and damage by casualty and loss by taking only excepted. Tenant shall make all repairs and replacements and do all other work necessary for the foregoing purposes to Building standards, whether the same may be ordinary or extraordinary, foreseen or unforeseen. Landlord shall have the right to inspect all repairs, replacements and maintenance performed by Tenant to the Premises and the items located therein. Tenant shall provide its own janitorial services, rubbish and trash disposal, and pest and rodent control within the Premises and shall pay for all electrical light bulbs, lamps and tubes used in the Premises.

Section 10.3. Compliance with Law and Insurance Requirements. Tenant shall make all repairs, alterations, additions or replacements to the Premises required by any law or ordinance or any order or regulation of any public authority but only to the extent such compliance is required (i) because of Tenant's particular use of, or particular type or manner of business operations conducted by Tenant in, the Premises (as opposed to biotechnology use generally) or (ii) because of Tenant's construction, use and operation of the Controlled Areas, and shall keep the Premises equipped with all safety appliances so required. Tenant shall not dump, flush, or in any way introduce any hazardous substances or any other toxic substances into the septic, sewage or other waste disposal system serving the Premises, or generate, store or dispose of hazardous substances in or on the Premises or dispose of hazardous substances from the Premises to any other location unless the same is performed in compliance with the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. §6901 et seq., the Massachusetts Hazardous Waste Management Act, M.G.L. c.21C, as amended, the Massachusetts Oil and Hazardous Material Release Prevention and Response Act, M.G.L. c. 21E, as amended, and all other applicable codes, regulations, ordinances and laws and unless the same is performed in accordance with accepted good and safe industry standards and practices. Tenant shall notify Landlord of any incident which would require the filing of a notice under Chapter 232 of the Acts of 1982 and shall comply with the orders and regulations of all governmental authorities with respect to zoning, building, fire, health and other codes, regulations, ordinances or laws applicable to the Premises. "Hazardous substances" as used in this Section shall mean "hazardous substances" as defined in the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended, 42 U.S.C. §9601 and regulations adopted pursuant to

said Act and shall include, without limitation, any biogens or organisms that are produced, stored, used or disposed of in connection with Tenant's operations at the Premises.

Except for repairs, alterations, additions or replacements in the Controlled Areas, Landlord may, if it so elects, make any of the repairs, alterations, additions or replacements referred to above in this Section 10 which affect the Building structure or the Building systems, and Tenant shall reimburse Landlord for the actual reasonable costs thereof within thirty (30) days after receipt of an invoice from Landlord evidencing such expenditures.

Prior to the commencement of Tenant's operations at the Premises and then once annually (and more frequently, if reasonably requested by Landlord in connection with a proposed financing or acquisition), Tenant shall provide Landlord with a listing of any hazardous substance maintained, used or produced on the Premises by Tenant. Tenant shall also provide Landlord with a copy of the list of such hazardous substances that Tenant delivers to the Fall River Fire Department. Tenant shall obtain all necessary permits for its use, production, storage and disposal of hazardous substances in, on or about the Premises, the Building, the Lot or the Park and shall comply with all laws applicable thereto and shall comply with all conditions in such permits.

Subject to the provisions of Section 10.6 of this Lease, Landlord shall have the right, upon reasonable advance notice to Tenant, to make such inspections as Landlord shall reasonably elect from time to time to determine if Tenant is complying with this Section.

Without limiting the generality of the foregoing, Tenant shall also comply with all applicable laws, rules, regulations, codes, ordinances and mandates of the Food and Drug Administration (the "FDA") applicable to Tenant's use of the Premises, including without limitation, maintaining an emergency plan and clean rooms.

Tenant shall comply promptly with the commercially reasonable recommendations of any insurer of the Building which may be applicable to the Premises by reason of Tenant's construction, use and operation of the Controlled Areas or by reason of Tenant's particular use of the Premises, including its use, production, storage or disposal of hazardous substances, to the extent such recommendations are commercially reasonable with respect to the intended and Permitted Uses for the Premises. In no event shall any activity be conducted by Tenant on the Premises which may give rise to any cancellation of any then insurance policy of Landlord on the Building or make any such insurance unobtainable.

Section 10.4. Tenant's Work. Except as otherwise described in this Section 10.4, Tenant shall not make any installations, alterations, additions or improvements in or to the Premises, including, without limitation, any appertures in the walls, partitions, ceilings or floors, without on each occasion obtaining the prior written consent of Landlord (i) which consent, as to installations, alterations, additions or improvements that do not affect the Building systems or the structure of the Premises or the Building, shall not be unreasonably withheld or delayed and (ii) which consent shall not be necessary as to cosmetic improvements (i.e., painting and carpeting) that does not cost more than $10,000 in any one instance. Any such work so approved by Landlord shall be performed only in accordance with plans and specifications (except for cosmetic improvements) and a construction

schedule therefor reasonably approved in advance by Landlord. Tenant shall procure at Tenant's sole expense all necessary permits and licenses before undertaking any work on the Premises and shall perform all such work in a good and workmanlike manner employing materials of good quality and so as to conform with all applicable zoning, building, fire, health and other codes, regulations, ordinances and laws and with all applicable insurance requirements. Prior to commencing any work at the Premises, Tenant shall provide Landlord with a copy of the executed contract with the general contractor for such work. If requested by Landlord, Tenant shall furnish to Landlord prior to the commencement of any such work a bond or other security acceptable to Landlord assuring that any work by Tenant will be completed in accordance with the approved plans and specifications. Tenant shall keep the Premises at all times free of liens for labor and materials. Tenant shall employ for such work only contractors approved by Landlord, which approval shall not be unreasonably withheld, and shall require all contractors employed by Tenant to carry worker's compensation insurance in accordance with statutory requirements and commercial public liability insurance covering such contractors on or about the Premises in amounts that at least equal the limit of $2,000,000 and to submit certificates evidencing such coverage to Landlord prior to the commencement of such work. Tenant shall save Landlord harmless and indemnified from all injury, loss, claims or damage to any person or property occasioned by or growing out of such work. Subject to compliance with the terms of Section 10.6 of this Lease, Landlord may inspect the work of Tenant at reasonable times and give notice of observed defects.

Subject to the above provisions of this Section 10.4, including the submission of final plans and specifications to Landlord for Landlord's approval, and so long as Tenant's engineer or architect certifies to Landlord that such items, once installed, will either be compatible with the Building's plumbing, electrical and mechanical systems or Tenant will perform such upgrades or modification to the applicable systems in the Building necessary to achieve such compatibility (subject to Landlord's prior written approval of Tenant's request to perform the same and to the plans and specifications for the same, which approval shall not be unreasonably withheld, delayed or conditioned), Tenant shall have the right to install the specialized tenant improvements that are mutually agreed to by Landlord and Tenant after the date hereof (the "Approved Specialized Tenant Improvements"). Once the Approved Specialized Tenant Improvements are agreed to, Landlord and Tenant shall enter into a letter agreement acknowledging the same and acknowledging that the list of such agreed to items shall be deemed to be attached to this Lease as Exhibit E. Tenant shall perform all necessary maintenance, repairs and replacements of the Approved Specialized Tenant Improvements throughout the Lease Term. Landlord acknowledges and agrees that Landlord has reviewed and approved the space plan attached hereto as Exhibit F (the "Space Plan"). Landlord shall not unreasonably withhold, delay or condition its approval of the final plans and specifications (the "Final Plans") for the leasehold improvements shown on the Space Plan and the Approved Specialized Tenant Improvements so long as such final plans are, in Landlord's good faith judgment, substantially in accordance with the Space Plan and Exhibit E and do not contain any material modifications and so long as such Final Plans are accompanied by the certification referred to above in this paragraph. If the Final Plans contain any material modifications to the Space Plan or Exhibit E, Landlord's approval of the Final Plans will not be unreasonably withheld, conditioned or delayed so long as such Final Plans are accompanied by the certification referred to above in this

paragraph. Landlord shall respond to Tenant's request for approval of the list of Approved Specialized Tenant Improvements, the Final Plans, and any subsequent changes to the list or the Final Plans after approval, as applicable, within ten (10) days following receipt of Tenant's request for such approval. If Landlord fails to respond to Tenant's request for approval within such ten (10) day period, then for all purposes of this Lease, Landlord will be deemed to have approved (without electing to require the removal of the items listed or shown thereon at the expiration or earlier termination of the Lease Term) the list, the Final Plans, and any subsequent changes, as applicable, submitted by Tenant.

Notwithstanding any terms or provisions of this Lease to the contrary, the Approved Specialized Tenant Improvements, once installed, shall become Landlord's sole and exclusive property and shall be part of the Premises, subject only to Tenant's right to use the same at the Premises during the Original Term and any Extension Term in connection with its operations at the Premises.

Section 10.5. Indemnity. Tenant shall defend, with counsel reasonably approved by Landlord, all actions against Landlord, any partner, trustee, stockholder, officer, director, employee or beneficiary of Landlord, holders of mortgages secured by the Building and any other party having an interest in the Premises ("Indemnified Parties") with respect to, and shall pay, protect, indemnify and save harmless, to the extent permitted by law, all Indemnified Parties from and against, any and all liabilities, losses, damages, costs, expenses (including reasonable attorneys' fees and expenses), causes of action, suits, claims, demands or judgments of any nature arising from (a) injury to or death of any person, or damage to or loss of property, occurring in the Premises or proximately caused by the use, condition or occupancy of the Premises by Tenant except to the extent caused by the negligence of Landlord or its agents, employees or contractors, (b) violation of this Lease by Tenant, or (c) any act, fault, omission, or other misconduct of Tenant or its agents, contractors, licensees, sublessees or invitees.

Section 10.6 Landlord's Right to Enter. Upon at least three (3) days' prior notice, except during the pendency of a default by Tenant under this Lease that extends beyond the expiration of applicable notice and cure periods, and except in the case of an emergency, when in each case no prior notice shall be required, Tenant shall permit Landlord and its agents to enter into the portions of the Premises that are not one of the "Controlled Areas" at reasonable times, to examine the Premises, make such repairs and replacements as Landlord may elect or as Landlord may be required to make, without however, any obligation to do so, and to show the Premises to prospective purchasers and lenders, and, during the last year of the term, to show the Premises to prospective tenants and to keep affixed in suitable places notices of availability of the Premises; provided, however, that except in the case of an emergency or during the pendency of a default by Tenant under this Lease that extends beyond the expiration of applicable notice and cure periods, such access shall only be performed when escorted by a representative of Tenant. Landlord acknowledges that Tenant's business operations require strict compliance with federal and state regulations regarding the development, production and testing of human use biological products and, therefore, Landlord covenants that its representative (and any access of the Premises by Landlord or anyone claiming by, through or under Landlord) shall comply in all respects with such regulations.

Tenant intends to use certain portions of the Premises for experimentation, testing and development of highly sensitive materials and vaccines and, in order to establish the necessary control setting for such experimentation, testing, and development, such portions of the Premises (each such portion a "Controlled Area" and collectively the "Controlled Areas") will need to be segregated and properly sealed off from the other portions of the Premises. Prior to taking occupancy, Tenant shall provide Landlord with a plan that clearly identifies which portions of the Premises shall be Controlled Areas and Tenant shall, to the extent practicable, install signage outside of each Controlled Area reasonably identifying it as a "Controlled Area." Upon at least three (3) days' prior notice, except during the pendency of a monetary or other material default by Tenant under this Lease that extends beyond the expiration of applicable notice and cure periods, and except in the case of emergency which requires immediate access to the Controlled Areas, when in each case no prior notice shall be required, Tenant shall permit a "Qualified Representative of Landlord" (as hereinafter defined) to enter the Controlled Areas at reasonable times to perform inspections of the Controlled Areas and to make such repairs and replacements therein as may be necessary; provided, that, except during the pendency of a monetary or other material default by Tenant under this Lease that extends beyond the expiration of applicable notice and cure periods, and except in the case of an emergency which requires immediate access to the Controlled Areas, such entry by a "Qualified Representative of Landlord" shall only be performed when escorted by a representative of Tenant. A "Qualified Representative of Landlord" shall mean an individual that possess the credentials and the training required to enter and inspect a facility (a) regulated by the FDA and (b) which is engaged in business operations of the type Tenant will be carrying on in the Premises. Landlord shall submit information and documentation reasonably required by Tenant or any other governmental entity to establish an individual's qualification as a Qualified Representative of Landlord in advance of any such entry and Tenant shall reasonably cooperate in good faith with Landlord in approving such individual as a Qualified Representative of Landlord. Landlord shall apprise the Qualified Representative of Landlord of the sensitivity of Tenant's operations that are to be conducted in the Controlled Areas and shall use all diligent, good faith efforts to cause such party to adhere to all applicable legal requirements, all requirements of the FDA applicable to such access and Tenant's reasonable guidelines and safety rules for entering the Controlled Areas, including wearing protective clothing and masks before entering the Controlled Areas in order to protect the processes that Tenant will be conducting in the Controlled Areas.

Section 10.7 Personal Property at Tenant's Risk. All furnishings, fixtures, equipment, effects and property of every kind of Tenant and of all persons claiming by, through or under Tenant which may be on the Premises, shall be at the sole risk and hazard of Tenant and if the whole or any part thereof shall be destroyed or damaged by fire, water or otherwise, or by the leakage or bursting of water pipes, steam pipes, or other pipes, by theft or from any other cause, no part of said loss or damage shall be charged to or to be borne by Landlord, except that Landlord shall in no event be indemnified or held harmless or exonerated from any liability to Tenant for any injury, loss, damage or liability not covered by Tenant's insurance to the extent prohibited by law. Tenant shall insure Tenant's equipment and personal property.

Section 10.8 Payment of Landlord's Cost of Enforcement. Tenant shall pay, on demand, Landlord's expenses, including reasonable attorney's fees, incurred in enforcing or curing any obligation of Tenant under this Lease following a default by Tenant beyond applicable notice and cure periods (which notice and cure periods shall be shortened as reasonably necessary in the event of an emergency) under this Lease as provided in Section 12.4.

Section 10.9 Yield Up. At the expiration of the term or earlier termination of this Lease (but subject, however, to the terms and provisions of the "Security Agreement" (hereinafter defined), Tenant shall surrender all keys to the Premises, remove all of its equipment, trade fixtures and other personal property in the Premises (including any of the Collateral under the Security Agreement), remove such installations and improvements made by Tenant as Landlord may request in writing at the time Landlord approves such installation and all Tenant's exterior signs, if any, wherever located, repair all damage caused by such removal and yield up the Premises (including any installations and improvements made by Tenant which Landlord has not notified Tenant at the time of Landlord's approval must be removed at the expiration or earlier termination of the Lease Term) broom-clean and in the same good order and repair in which Tenant is obliged to keep and maintain the Premises under this Lease. Any property not so removed shall be deemed abandoned and may be removed and disposed of by Landlord in such manner as Landlord shall determine and Tenant shall pay Landlord the entire cost and expense incurred by it in effecting such removal and disposition and in making any incidental repairs and replacements to the Premises and for use and occupancy during the period after the expiration of the term and prior to Tenant's performance of its obligations under this Section 10.9. In no event, however, shall Tenant remove any of

the Approved Specialized Tenant Improvements. Notwithstanding anything herein to the contrary, Tenant agrees that, upon the expiration or earlier termination of the Term, (i) Tenant shall deliver the Premises to Landlord in substantial compliance with good manufacturing procedures then in effect or good laboratory procedures then in effect, as and to the extent such procedures are applicable to the manner in which the facility was utilized by Tenant immediately prior to the expiration or earlier termination of the Term and (ii) Tenant shall perform any necessary de-contamination of the Controlled Areas to ensure that the Premises are free of any hazardous substances from Tenant's operations and shall provide customary documentation (including a testing report comparing the air testing results initially performed by Tenant upon commencement of its operations at the Premises to the air testing results performed after such de-contamination performed at the expiration or earlier termination of the Term) to Landlord evidencing that such de-contamination has been performed.

Section 10.10 Estoppel Certificate. Upon not less than five (5) business days' prior notice by Landlord, Tenant shall execute, acknowledge and deliver to Landlord a statement in writing certifying that this Lease is unmodified and in full force and effect and that, except as stated therein, Tenant has no knowledge of any defenses, offsets or counterclaims against its obligations to pay the Fixed Rent and Additional Rent and any other charges and to perform its other covenants under this Lease (or, if there have been any modifications that the same is in full force and effect as modified and stating the modifications and, if there are any defenses, offsets or counterclaims, setting them forth in reasonable detail), the dates to which the Fixed Rent and Additional Rent and other charges have been paid and a statement

that Landlord is not in default hereunder (or if in default, the nature of such default, in reasonable detail). Any such statement delivered pursuant to this Section 10.10 may be relied upon by any prospective purchaser, mortgagee of the Building or other interested party.

Upon not less than five (5) business days' prior notice by Tenant, Landlord shall execute, acknowledge and deliver to Tenant a statement in writing certifying that this Lease is unmodified and in full force and effect and that, except as stated therein, Landlord has no knowledge of any defenses, offsets or counterclaims against Tenant's obligations to pay the Fixed Rent and Additional Rent and any other charges and to perform its other covenants under this Lease (or, if there have been any modifications that the same is in full force and effect as modified and stating the modifications and, if there are any defenses, offsets or counterclaims, setting them forth in reasonable detail), the dates to which the Fixed Rent and Additional Rent and other charges have been paid and a statement that Tenant is not in default hereunder (or if in default, the nature of such default, in reasonable detail). Any such statement delivered pursuant to this Section 10.11 may be relied upon by any prospective lender, underwriter, assignee or subtenant of Tenant or other interested party.

Section 10.11 Landlord's Expenses Re Consents. Tenant shall reimburse Landlord promptly on demand for all reasonable legal and other expenses incurred by Landlord in connection with all requests by Tenant for consent or approval hereunder.

Section 10.12 Rules and Regulations. Tenant shall abide by, and faithfully observe and comply with, the Rules and Regulations, and by any other subsequent rules and regulations adopted from time to time by Landlord and any reasonable amendments or additions thereto for the use, safety, security, good order, cleanliness and other matters concerning the Premises, the Building and Lot, the North Parking Areas and the Park; provided such subsequent rules and regulations do not materially affect Tenant's rights under this Lease. Landlord shall not be liable to Tenant for any violations of such rules and regulations and amendments or additions thereto by any other tenant or occupant of the Building or the Park.

Section 10.13 Holding Over. Tenant shall vacate the Premises immediately upon the expiration or sooner termination of this Lease. If Tenant retains possession of the Premises or any part thereof after the termination of the term without Landlord's express consent, Tenant shall pay Landlord rent at the greater of (i) 1 1/2 times the daily rate of the annual amount of rent then most recently in effect under Section 1 or (ii) the fair market rental, in each case for the time Tenant thus remains in possession and, in addition thereto, if such retention of possession shall continue for more than sixty (60) consecutive days, Tenant shall pay Landlord for all damages, consequential as well as direct, sustained by reason of Tenant's retention of possession. The provisions of this Section do not exclude Landlord's rights of re-entry or any other right hereunder, including without limitation, the right to refuse the monthly rent provided for in this Section 10.13 and instead to remove Tenant through summary proceedings for holding over beyond the expiration of the term of this Lease.

Section 10.14 Assignment and Subletting. Tenant shall not assign, transfer, mortgage or pledge this Lease or grant a security interest (except as set forth in the Security Agreement)

in Tenant's rights hereunder or sublease (which term shall be deemed to include the granting of concessions and licenses and the like) all or any part of the Premises or suffer or permit this Lease or the leasehold estate hereby created or any other rights arising under this Lease to be assigned, transferred or encumbered, in whole or in part, or permit the occupancy of the Premises by anyone other than Tenant. Any attempted assignment, transfer, mortgage, pledge, grant of security interest, sublease or other encumbrance (each being referred to herein as a "Transfer"), except with prior written approval thereof from Landlord, shall be void. No assignment, transfer, mortgage, grant of security interest, sublease or other encumbrance, whether or not approved, and no indulgence granted by Landlord to any assignee or sublessee, shall in any way impair the continuing primary liability (which after an assignment shall be joint and several with the assignee) of Tenant hereunder, and no approval in a particular instance shall be deemed to be a waiver of the obligation to obtain Landlord's approval in any other case. Notwithstanding any terms or provisions of this Lease to the contrary, but subject to the prior sentence, Tenant shall have the right to sublet all of the Premises or assign this Lease, without the need to obtain Landlord's prior consent, to (1) an entity that controls, is under common control with, or is controlled by Tenant; or (2) an entity with whom Tenant merges or consolidates or to an entity that acquires all or substantially all of Tenant's assets (each of the entities set forth in (1) and (2) above, an "Approved Entity") so long as (i) Tenant provides Landlord at least thirty (30) days' prior notice of such proposed assignment or sublease, (ii) the Approved Entity assumes, in a writing to Landlord, all of Tenant's obligations under this Lease and under the "Security Agreement" (as such term is defined in Section 12), the "Note" (as such term is defined in Section 12) and related financing documents (collectively, the "Equipment Loan Documents"), (iii) Tenant remains liable, on a joint and several basis with the assuming party, for all of Tenant's obligations under this Lease and under the Equipment Loan Documents, (iv) Tenant shall take all actions requested by Landlord to confirm Landlord's security interest in the "Collateral" described in the Security Agreement, (v) the Approved Entity shall use the Premises for only the Permitted Uses (collectively, a "No-Consent Required Transfer"). In no event shall Tenant, however, sell all or substantially all of its assets unless this Lease shall be assigned to, and assumed by, the party acquiring such assets.

Except in connection with a No-Consent Required Transfer, if Tenant desires to Transfer this Lease or any interest herein, then at least forty-five (45) days but not more than one hundred eighty (180) days prior to the effective date of the proposed Transfer, Tenant shall submit to Landlord: (i) a statement

containing the name and address of the proposed Transferee; (ii) such financial information with respect to the proposed Transferee as Landlord shall reasonably require; (iii) the type of use proposed for the Premises and (iv) all of the principal terms of the proposed Transfer.

Landlord's consent to a proposed Transfer shall not be unreasonably withheld, conditioned or delayed; but, in addition to any other grounds for denial, Landlord's consent shall be deemed reasonably withheld if, in Landlord's good faith judgment: (i) the proposed Transferee does not have the financial strength to perform its obligations under this Lease or any proposed sublease or license; (ii) the business and operations of the proposed Transferee are not of comparable quality or type to the business and operations being conducted by Tenant or other tenants at the Building or the Park or would not otherwise be in compliance with the terms

hereof; (iii) either the proposed Transferee, or any person which directly or indirectly controls, is controlled by, or is under common control with the proposed Transferee occupies space in the Building or the Park, or is negotiating with Landlord to lease space at the Building or the Park; (iv) the sublet space is not regular in shape with appropriate means of ingress and egress suitable for normal leasing purposes; (v) Tenant is in default beyond applicable notice and cure periods at the time Tenant requests consent to the proposed Transfer; or (vi) such assignment would cause the interest earned on the Bonds to become taxable to the holder thereof (and as a condition to any Transfer, Landlord may require Tenant to obtain an opinion from Landlord's bond counsel at Tenant's cost, that the proposed Transfer would not cause such interest to be taxable).

Within thirty (30) days after Landlord's receipt of any request for consent to a Transfer (but not in the case of a No-Consent Required Transfer), Landlord may, at its option by notice to Tenant, elect to terminate this Lease in the case of a proposed Transfer of the entire Premises or as to the portion of the Premises subject to the proposed Transfer, with a proportionate adjustment in the Rent and the Specialized Tenant Allowance Reimbursement Payments (which shall be reduced proportionately to reflect the percentage of the Approved Specialized Tenant Improvements in the space to be terminated) payable hereunder if this Lease is terminated as to less than all of the Premises.

If for any Transfer Tenant shall receive rent or other consideration, either initially or over the term of the assignment or sublease, in excess of the rent and the Specialized Tenant Allowance Reimbursement Payments called for hereunder (or in the case of the sublease of part, in excess of such rent and the Specialized Tenant Allowance Reimbursement Payments allocable to the part) after appropriate adjustments to assure that all other payments called for hereunder are taken into account and after deducting Tenant's reasonable legal, brokerage and leasehold improvement costs, all amortized ratably over the term of the sublease or assignment, incurred for such sublease or assignment, Tenant shall pay to Landlord, as Additional Rent, one hundred percent (100%) of such excess of such payment of rent or other consideration received by Tenant, promptly after its receipt.

If Tenant shall Transfer this Lease for all or any part of the Premises or shall request the consent of Landlord to any Transfer, Tenant shall pay to Landlord Landlord's actual, bona fide, out-of-pocket costs related thereto, including Landlord's reasonable attorneys' fees up to $3,000.00 and a minimum administrative fee to Landlord of Five Hundred Dollars ($500.00).

In the event of a Transfer, Landlord may collect rent from the Transferee without waiving any rights hereunder and collection of the rent from a person other than Tenant shall not be deemed a waiver of any of Landlord's rights under this Section 10.14, an acceptance of such Transferee as Tenant, or a release of Tenant from the performance of Tenant's obligations under this Lease. If Tenant shall default under this Lease and fail to cure within the time permitted, Landlord is irrevocably authorized, as Tenant's attorney-in-fact, to direct any Transferee to make all payments directly to Landlord.

Section 10.15 Overloading and Nuisance. Tenant shall not injure, overload, deface or otherwise harm the Premises, commit any nuisance, permit the emission of any objectionable noise, vibration or odor, make, allow or suffer any waste or make any use of

the Premises which is contrary to any law or ordinance or which will invalidate any of Landlord's insurance.

Section 10.16 Tenant's Financial Condition. Within ten (10) days after request by Landlord from time to time, Tenant shall deliver to Landlord Tenant's audited financial statements (which shall be for the latest available year and in any event for a year ended not more than fifteen (15) months prior to Landlord's request); provided that the foregoing obligation shall be waived during such time as Tenant remains obligated to file periodic reports pursuant to Section 12 or Section 15(d) of the Securities Exchange Act of 1934, as amended, in which case Tenant shall only be required to provide Landlord with copies of its 10K and 10Q reports promptly after the filing of the same with the Securities and Exchange Commission. Such financial statements may be delivered to Landlord's mortgagees and lenders and prospective mortgagees, lenders and purchasers. Tenant represents and warrants to Landlord that each such financial statement shall be true and accurate as of the date of such statement.

SECTION 11
Casualty or Taking

Section 11.1 Termination. In the event that greater than twenty-five (25) percent of the Building or the Lot shall be taken by any public authority or for any public use or destroyed by the action of any public authority (a "Taking") then this Lease may be terminated by either Landlord or Tenant effective on the effective date of the Taking. In the event that the Premises shall be destroyed or damaged by fire or casualty (a "Casualty") and if Landlord's architect, engineer or contractor shall determine that it will require in excess of 210 days from the date of the Casualty to restore the Premises, or if the casualty or taking is of more than 10% of the Premises and occurs during the last twelve (12) months of the Term then in effect, this Lease may be terminated by Landlord or Tenant by notice to the other within thirty (30) days after the Casualty by notice to the other party given within thirty (30) days after the Casualty. In the case of a Taking, such election, which may be made notwithstanding the fact that Landlord's entire interest may have been divested, shall be made by the giving of notice by Landlord or Tenant to the other within thirty (30) days after Landlord or Tenant, as the case may be, shall receive notice of the Taking.

Section 11.2 Restoration. In the event of a Taking or a Casualty, if neither Landlord nor Tenant exercises the election to terminate provided in this Section 11, this Lease shall continue in force and a just proportion of the Fixed Rent and other charges hereunder, according to the nature and extent of the damages sustained by the Premises, but (if the Casualty shall have been caused by the negligence of Tenant or Tenant's agents, employees or contractors) not in excess of an equitable portion of the net proceeds of insurance recovered by Landlord under the rental insurance carried pursuant to Section 6.2, shall be

abated from the date of Casualty until the Premises, or what may remain thereof, shall be put by Landlord in proper condition for use subject to zoning and building laws or ordinances then in existence, which, unless Landlord or Tenant has exercised its option to terminate pursuant to this Section 11, Landlord covenants to do with reasonable diligence at Landlord's expense. If Landlord fails to complete the restoration after a Casualty within

thirty (30) days after the scheduled completion date in Landlord's notice (which date shall be extended for up to an additional ninety (90) days for events beyond Landlord's reasonable control), Tenant shall have the right to terminate this Lease by notice given to Landlord within thirty (30) days after such thirty (30) day period. Landlord's obligations with respect to restoration shall not require Landlord to expend more than the net proceeds of insurance recovered or damages awarded for such Casualty or Taking and made available for restoration by Landlord's mortgagees. "Net proceeds of insurance recovered or damages awarded" refers to the gross amount of such insurance or damages less the reasonable expenses of Landlord in connection with the collection of the same, including without limitation, fees and expenses for legal and appraisal services.

Section 11.3 Exceptions to Landlord's Obligations. Notwithstanding the foregoing, in no event shall Landlord have an obligation to repair the Premises if either: (a) the Building is so damaged as to require costs of repairs exceeding ten percent (10%) of the full insurable value of the Building; or (b) Landlord elects to demolish the Building; or (c) the damage or destruction occurs during the last two (2) years of the Lease Term. Tenant's Fixed Rent shall not be abated if either (i) the damage or destruction is repaired within twenty (20) business days after Landlord received written notice from Tenant of the casualty, or (ii) Tenant or Tenant's employees, contractors, agents or invitees are, in whole or in part, responsible for the damage or destruction, except that such abatement shall apply under this clause (ii) to the extent Landlord receives rental loss proceeds for the same.

Section 11.4 Award. Irrespective of the form in which recovery may be had by law, all rights to damages or compensation shall belong to Landlord in all cases, except for Tenant's right to maintain a claim for its moving and relocation costs and costs for its trade fixtures and other personal property. Tenant hereby grants to Landlord all of Tenant's rights to such damages and compensation and covenants to deliver such further assignments thereof as Landlord may from time to time request. In no event under this Lease, however, shall the Approved Specialized Tenant Improvements be considered Tenant's trade fixtures or personal property.

SECTION 12
Default

Section 12.1 Events of Default. If:

(a) Tenant shall default in the performance of any of its obligations to pay the Fixed Rent, Additional Rent or any other sum payable hereunder and if such default shall continue for five (5) days after notice from Landlord designating such default;

(b) if within thirty (30) days after notice from Landlord to Tenant specifying any other default or defaults Tenant has not commenced to correct the default or

defaults so specified or, having commenced to correct the default, is not diligently pursuing such correction to completion;

(c) if any assignment for the benefit of creditors shall be made by Tenant;

(d) if Tenant's leasehold interest shall be taken on execution or other process of law in any action against Tenant;

(e) if a lien or other involuntary encumbrance is filed against Tenant's leasehold interest, and is not discharged or bonded off within thirty (30) days thereafter;

(f) if a default by Tenant beyond the expiration of applicable grace periods shall exist under that certain "Security Agreement: Equipment" between Landlord and Tenant of even date (the "Security Agreement") or under that certain "Secured Promissory Note: Equipment Loan" from Tenant to Landlord of even date (the "Note");

(g) if a petition is filed by Tenant for liquidation, or for reorganization or an arrangement or any other relief under any provision of the Bankruptcy Code as then in force and effect; or

(h) if an involuntary petition under any of the provisions of said Bankruptcy Code is filed against Tenant and such involuntary petition is not dismissed within sixty (60) days thereafter,

then, and in any of such cases, Landlord and the agents and servants of Landlord lawfully may, in addition to and not in derogation of any remedies for any preceding breach of covenant, immediately or at any time thereafter and without demand or notice and with or without process of law (forcibly, if necessary) enter into and upon the Premises or any part thereof in the name of the whole, or mail a notice of termination addressed to Tenant, and repossess the same as of Landlord's former estate and expel Tenant and those claiming through or under Tenant and remove its and their effects without being deemed guilty of any manner of trespass and without prejudice to any remedies which might otherwise be used for arrears of rent or prior breach of covenant, and upon such entry or mailing as aforesaid this Lease shall terminate, Tenant hereby waiving all statutory rights (including, without limitation, rights of redemption, if any) to the extent such rights may be lawfully waived. Landlord, without notice to Tenant, may store Tenant's effects, and those of any person claiming through or under Tenant at the expense and risk of Tenant, and, if Landlord so elects, may sell such effects at public auction or private sale and apply the net proceeds to the payment of all sums due to Landlord from Tenant, if any, and pay over the balance, if any, to Tenant.

Section 12.2 Remedies. In the event that this Lease is terminated under any of the provisions contained in Section 12.1, Tenant shall pay forthwith to Landlord, as compensation, the excess of the total rent reserved for the residue of the Term (except for the Specialized Tenant Allowance Reimbursement Payments, which shall be addressed by the last sentence of this Section 12.2) discounted to present value (using an interest rate

equal to the discount rate of The Federal Reserve Bank of Boston) over the fair market rental value of the Premises for the residue of the term discounted to present value (using an interest rate equal to the discount rate of The Federal Reserve Bank of Boston). In calculating the rent reserved there shall be included, in addition to the Fixed Rental and Additional Rent, the value of all other considerations agreed to be paid or performed by Tenant during the residue. As additional and cumulative obligations after any such termination, Tenant shall also pay punctually to Landlord all the sums and shall perform all the obligations which Tenant covenants in this Lease to pay and to perform in the same manner and to the same extent and at the same time as if this Lease had not been terminated, except the Specialized Tenant Allowance Reimbursement Payments shall be paid as described below. In calculating the amounts to be paid by Tenant pursuant to the preceding sentence, Tenant shall be credited with any amount paid to Landlord pursuant to the first sentence of this Section 12.2 and also with the net proceeds of any rent obtained by Landlord by reletting the Premises, after deducting all Landlord's reasonable expenses in connection with such reletting, including, without limitation, all repossession costs, brokerage commissions, fees for legal services and expenses of preparing the Premises for such reletting, it being agreed by Tenant that Landlord may (i) relet the Premises or any part or parts thereof for a term or terms which may at Landlord's option be equal to or less than or exceed the period which would otherwise have constituted the balance of the term hereof and may grant such concessions and free rent as Landlord in its reasonable judgment considers advisable or necessary to relet the same and (ii) make such alterations, repairs and decorations in the Premises as Landlord in its reasonable judgment considers advisable or necessary to relet the same, and no action of Landlord in accordance with the foregoing or failure to relet or to collect rent under reletting shall operate or be construed to release or reduce Tenant's liability as aforesaid. In addition to the above remedies available to Landlord to collect the above-described sums, and without in any way preventing Landlord from collecting the same or diminishing the above-described amounts that can be collected, in the event this Lease is terminated under any of the provisions contained in Section 12.1, Tenant shall also be obligated to pay to Landlord, on or before the date that is ten (10) days after such termination, on an accelerated basis, the aggregate amount of Specialized Tenant Allowance Reimbursement Payments that are due to be paid by Tenant for the then remainder of the Original Term (i.e., the remainder as if this Lease had not been terminated).

If Tenant becomes a debtor voluntarily or involuntarily, under Title 11 of the United States Code or any bankruptcy legislation serving as a substitute or supplement therefor, or if Tenant becomes an alleged debtor in any involuntary proceeding commenced under said legislation or otherwise becomes subject to the jurisdiction of a federal or state court with jurisdiction to administer the property of Tenant, and if this Lease has not been terminated or Landlord has not been permitted to reenter and relet the Premises, then: (i) so long as Tenant or any party claiming under or through Tenant remains in possession of the Premises and so long as Landlord is prohibited or prevented from taking possession of the Premises and reletting it by reason of any such bankruptcy or insolvency proceeding, Tenant (whether or not serving as debtor-in-possession), any statutory representative of Tenant, and Tenant's bankruptcy estate shall be obligated to pay to Landlord as fair use and occupancy of the Premises an amount not less than the Fixed Rent and Additional Rent specified in this Lease as and when such rent is due under this Lease without requesting any deferral thereof and shall continue to perform all other obligations under the Lease; and (ii) within sixty (60)

days from and after the entry of an order for relief under Sections 301, 302, or 303 of Title 11 of the United States Code or a similar assumption by any federal or state court or jurisdiction over the administration of Tenant's property, Tenant shall, unless Landlord agrees in writing to a further extension of time, exercise any available right to assume or reject this Lease and shall not request any extension of time from any court of competent jurisdiction to exercise such right.

Section 12.3 Remedies Cumulative. Except as otherwise expressly provided herein, any and all rights and remedies which Landlord may have under this Lease and at law and equity shall be cumulative and shall not be deemed inconsistent with each other, and any two or more of all such rights and remedies may be exercised at the same time to the greatest extent permitted by law.

Section 12.4 Landlord's Right to Cure Defaults. At any time following a default by Tenant which extends beyond the applicable notice and cure periods under Section 12.1 (except in cases of emergency when no notice and cure period shall be required), Landlord may (but shall not be obligated to) cure any default by Tenant under this Lease, and whenever Landlord so elects, all costs and expenses incurred by Landlord, including reasonable attorneys' fees, in curing a default shall be paid by Tenant to Landlord as Additional Rent on demand, together with interest thereon at the rate provided in Section 12.7 from the date of payment by Landlord to the date of payment by Tenant.

Section 12.5 Effect of Waivers of Default. Any consent or permission by Landlord to any act or omission which otherwise would be a breach of any covenant or condition herein, or any waiver by Landlord of the breach of any covenant or condition herein, shall not in any way be held or construed (unless expressly so declared) to operate so as to impair the continuing obligation of any covenant or condition herein, or otherwise operate to permit the same or similar acts or omissions except as to the specific instance. The failure of Landlord to seek redress for violation of, or to insist upon the strict performance of, any covenant or condition of this Lease shall not be deemed a waiver of such violation nor prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by Landlord of rent with knowledge of the breach of any covenant of this Lease shall not be deemed to have been a waiver of such breach by Landlord or of any of Landlord's remedies on account thereof, including its right of termination for such default.

Section 12.6 No Accord and Satisfaction. No acceptance by Landlord of a lesser sum than the Fixed Rental, Additional Rent or any other charge then due shall be deemed to be other than on account of the earliest installment of such rent or charge due, unless Landlord elects by notice to Tenant to credit such sum against the most recent installment due. Any endorsement or statement on any check or any letter accompanying any check or payment as rent or other charge shall not be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such installment or pursue any other remedy under this Lease or otherwise.

Section 12.7 Interest on Overdue Sums. If Tenant fails to pay Fixed Rental, Additional Rent or any other sum payable by Tenant to Landlord by the due date thereof (i.e., the due

date disregarding any requirement of notice from Landlord or any period of grace allowed to Tenant), the amount so unpaid shall bear interest at a variable rate (the "Delinquency Rate") equal to three percent (3%) in excess of the base rate (prime rate) of Fleet National Bank from time to time in effect commencing with the due date and continuing through the day on which payment of such delinquent payment with interest thereon is paid. If such rate is in excess of any maximum interest rate permissible under applicable law, the Delinquency Rate shall be the maximum interest rate permissible under applicable law.

SECTION 13
Mortgages

Section 13.1 Rights of Mortgage Holders. No Fixed Rental, Additional Rent or any other charge shall be paid more than ten (10) days prior to the due date thereof and payments made in violation of this provision shall (except to the extent that such payments are actually received by a mortgagee in possession or in the process of foreclosing its mortgage) be a nullity as against such mortgagee and Tenant shall be liable for the amount of such payments to such mortgagee.

In the event of any act or omission by Landlord which would give Tenant the right to terminate this Lease or to claim a partial or total eviction, Tenant shall not exercise any such right (a) until it shall have given notice, in the manner provided in Section 14.1, of such act or omission to the holder of any mortgage encumbering the Premises whose name and address shall have been furnished to Tenant in writing, at the last address so furnished, and (b) until a reasonable period of time for remedying such act or omission shall have elapsed following the giving of such notice, provided that following the giving of such notice, Landlord or such holder shall, with reasonable diligence, have commenced and continued to remedy such act or omission or to cause the same to be rendered.

In the event any proceedings are brought for the foreclosure of, or in the event of exercise of the power of sale under, any mortgage now or hereafter encumbering the Premises, Tenant shall attorn to the purchaser upon such foreclosure or sale or upon any grant of a deed in lieu of foreclosure and recognize such purchaser as Landlord under this Lease.

Section 13.2 Superiority of Lease; Option to Subordinate. Unless Landlord exercises the option set forth below in this Section 13.2, this Lease shall be superior to and shall not be subordinate to any mortgage on the Premises. Landlord shall have the option to subordinate this Lease to any mortgage of the Premises provided that the holder of record thereof enters into an agreement in recordable form with Tenant, in such holder's customary form, by the terms of which such holder will agree to (a) recognize the rights of Tenant under this Lease, (b) perform Landlord's obligations hereunder arising after the date of such holder's acquisition of title and (c) accept Tenant as tenant of the Premises under the terms and conditions of this Lease in the event of acquisition of title by such holder through foreclosure proceedings or otherwise and Tenant will agree to recognize the holder of such mortgage as Landlord in such event, which agreement shall be made expressly to bind and inure to the benefit of the successors and assigns of Tenant and of the holder and upon anyone purchasing the Premises at any foreclosure sale. Tenant agrees to execute and

deliver any appropriate instruments necessary to carry out the agreements contained in this Section 13.2. Landlord represents that, as of the date of this Lease, there is no mortgage encumbering the Premises, the Building or the Lot.

SECTION 14
Miscellaneous Provisions

Section 14.1 Notices from One Party to the Other. All notices required or permitted hereunder shall be in writing and addressed, if to Tenant, at the Original Address of Tenant or such other address as Tenant shall have last designated by notice in writing to Landlord, Attention: Michael Furlong, with a copy sent to the attention of: Mr. Avery Catlin and, if to Landlord, at the Original Address of Landlord or such other address as Landlord shall have last designated by notice in writing to Tenant. Any notice shall be deemed duly given when delivered or tendered for delivery at such address.

Section 14.2 Quiet Enjoyment. Landlord agrees that upon Tenant's paying the rent and performing and observing the terms, covenants, conditions and provisions on its part to be performed and observed, Tenant shall and may peaceably and quietly have, hold and enjoy the Premises during the term without any manner of hindrance or molestation from Landlord or anyone claiming under Landlord, subject, however, to the terms of this Lease.

Section 14.3 Lease Not to be Recorded; Notice of Lease. Tenant agrees that it will not record this Lease. If the Term of this Lease, including options, exceeds seven years, Landlord and Tenant agree that, on the request of either, they will enter and record a notice of lease in form reasonably acceptable to Landlord.

Section 14.4 Bind and Inure; Limitation of Landlord's Liability. The obligations of this Lease shall run with the land, and this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. No owner of the Premises shall be liable under this Lease except for breaches of Landlord's obligations occurring while owner of the Premises. Landlord shall have the right to sell, transfer or assign the Building and Lot, or any part thereof, and Landlord's interest in this Lease, in which event Landlord shall be automatically freed and relieved from all applicable liability with respect to performance of any covenant or obligation on the part of Landlord arising thereafter, provided the transferee assumes in writing all of Landlord's obligations first arising from and after the date of the transfer. The obligations of Landlord shall be binding upon the assets of Landlord which comprise the Building and Lot but not upon other assets of Landlord. No individual partner, trustee, stockholder, officer, director, employee or beneficiary of Landlord shall be personally liable under this Lease and Tenant shall look solely to Landlord's interest in the Building and Lot in pursuit of its remedies upon an event of default hereunder, and the general assets of Landlord and its partners, trustees, stockholders, officers, employees or beneficiaries of Landlord shall not be subject to levy, execution or other enforcement procedure for the satisfaction of the remedies of Tenant.

Section 14.5 Acts of God. In any case where either party hereto is required to do any act (except for the payment of money), delays caused by or resulting from acts of God, war,

civil commotion, fire, flood or other casualty, labor difficulties, shortages of labor, materials or equipment, government regulations, unusually severe weather, or other causes beyond such party's reasonable control shall not be counted in determining the time during which work shall be completed, whether such time be designated by a fixed date, a fixed time or a "reasonable time", and such time shall be deemed to be extended by the period of such delay.

Section 14.6 Landlord's Default. Landlord shall not be deemed to be in default in the performance of any of its obligations hereunder unless it shall fail to perform such obligations and unless within thirty (30) days after notice from Tenant to Landlord specifying such default Landlord has not commenced diligently to correct the default so specified or has not thereafter diligently pursued such correction to completion. Except as otherwise specifically set forth in this Lease, Tenant shall have no right, for any default by Landlord, to offset or counterclaim against any rent due hereunder.

Section 14.7 Brokerage. Landlord and Tenant each warrant and represent to the other that it has had no dealings with any broker or agent in connection with this Lease other than the Broker(s) set forth in Section 1 and covenants to defend (with counsel approved by the other), hold harmless and indemnify the other from and against any and all cost, expense or liability for any compensation, commissions and charges claimed by any broker or agent other than the Broker(s) set forth in Section 1. Landlord shall pay the commission due to the Broker.

Section 14.8 Miscellaneous. This Lease shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts. There are no prior oral or written agreements between Landlord and Tenant affecting this Lease.

Section 14.9 Independent Covenants; Waivers By Tenant. Each covenant, agreement, obligation or other provision of this Lease to be performed by Tenant is a separate and independent covenant of Tenant, and not dependent on any other provision of the Lease.

To the extent permitted by applicable law, Tenant waives the right to a jury trial in any proceeding regarding this Lease and the tenancy created by this Lease. If Landlord commences any summary proceeding for non-payment of Rent, Tenant will not interpose any counterclaim of whatever nature in any such proceeding. To the extent permitted by applicable law, Tenant waives any and all rights of redemption granted by any present or future laws.

Section 14.10 Rights Reserved by Landlord; Tenant's Right To Install An Exterior Building Sign. Landlord reserves the following rights exercisable without notice and without being deemed an eviction or disturbance of Tenant's use or possession of the Premises or giving rise to any claim for set-off or abatement of Rent: (i) to change the name or street address of the Building, subject to the provisions of the next paragraph; (ii) to install, modify and maintain all signs on the Building; (iii) to change the arrangement of entrance, doors, corridors, elevators and/or stairs in the Building, provided no such change shall materially adversely affect access to the Premises; (iv) to modify, relocate and to have access to any mail boxes located on or in the Building according to the rules of the United

States Post Office; (v) to close the Building after normal business hours, except that Tenant and its employees and invitees shall be entitled to admission at all times under such Rules and Regulations as Landlord prescribes for security purposes; (vi) to install, operate and maintain security systems which monitor, by closed circuit television or otherwise, all persons entering or leaving the Building; and (vii) to install, maintain or repair pipes, ducts, conduits, wires or structural elements located in or through the Premises which serve other parts or other tenant of the Building, provided such installations do not interfere with Tenant's use of the Premises in a materially adverse manner.

Subject to parties' mutual agreement as to the size, design, color, quality and location thereof, Tenant shall have the right to install, at Tenant's sole cost and expense, a Tenant identification sign on the exterior of the Building. Tenant shall be responsible to maintain, at Tenant's sole cost and expense, such sign during the Term. Tenant shall remove, at Tenant's sole cost and expense, such sign upon the expiration or sooner termination of the Term and shall perform, at Tenant's sole cost and expense, any repairs to the Building caused by the installation, maintenance and removal of such sign.

Section 14.11. Bond Financing. Tenant acknowledges that Landlord may finance the cost of certain construction or certain costs of ownership of the Building and Lot, in part, by obtaining a loan or by issuing tax exempt bonds (the "Bonds") and, in order to evidence and secure its obligations relative to either, may execute a loan and trust agreement, a mortgage and assignment of leases relating to the Building and Lot, and various other documents relating thereto (in the case of a loan financing, the "Loan Documents" and in the case of a bond financing, the "Bond Documents"). Tenant agrees to execute such documents as are reasonably necessary for such financing(s), including, without limitation, a commercially reasonable subordination, non-disturbance and attornment agreement as described in Section 13.2 and a commercially reasonable estoppel certificate as described in Section 10.11, within ten (10) days of request.

Section 14.12 Non Discrimination; Job Creation. With respect to its exercise of all uses, rights and privileges granted herein, Tenant agrees that Tenant shall: (a) not discriminate against any person, employee or applicant for employment because of race, color, creed, national origin, age, sex, sexual orientation, or disability in its use of the Premises, including the hiring and discharging of employees, the provision or use of services, and the selection of suppliers and contractors; (b) conspicuously post notices to employees and prospective employees setting forth the Fair Employee Practices Law of the Commonwealth of Massachusetts; and (c) comply with all applicable federal and state laws, rules, regulations and orders and Landlord's rules and orders pertaining to Civil Rights and Equal Opportunity unless otherwise exempt therefrom.

Tenant understands that Landlord's agreement to enter into this Lease, provide the Specialized TI Allowance and lend to Tenant the proceeds of the Equipment Loan was predicated on Tenant's agreement to use all diligent, commercially reasonable efforts to create and retain jobs at the Premises. Accordingly, Tenant shall create and fill ***Confidential Treatment Requested as to this Information*** new employment positions to be staffed at its facility located at the Premises no later than the date Tenant obtains a final certificate of occupancy for the Premises ("Tenant's Occupancy Date") and shall use

all diligent, commercially reasonable efforts to maintain the same during the Term. Tenant shall also add ***Confidential Treatment Requested as to this Information*** other employment positions to be staffed at its operations at the Premises, either by transferring positions from other facilities to the Premises or by creating new positions (or by a combination of the two), within one (1) year after Tenant's Occupancy Date, and Tenant shall use all diligent, commercially reasonable efforts to maintain the same during the Term. Tenant shall deliver a certificate to Landlord, within fifteen (15) days after Tenant's Occupancy Date, certifying as to Tenant's compliance with the ***Confidential Treatment Requested as to this Information*** employment creation

requirements of this paragraph and shall deliver a certificate to Landlord, within fifteen (15) days after the first (1st) anniversary of Tenant's Occupancy Date, certifying as to Tenant's compliance with the employment creation and/or transfer requirements of this paragraph.

Notwithstanding any contrary provision of this Lease, the sole and exclusive remedy of Landlord in the event of the breach of the foregoing obligation by Tenant under the prior paragraph shall be that Tenant will ***Confidential Treatment Requested as to this Information*** In addition, in no event shall a breach of Tenant's obligations under this Section 14.12 constitute a default under the Security Agreement or the Note (as such term is defined in Section 12), or any of the Equipment Loan Documents (as such term is defined in Section 10.14) and Landlord shall not have any claim or right of action against Tenant on account of a breach of this Section 14.12.

Section 14.13 Access to the Premises; Tenant's Right To Use Conference Center.

Tenant's employees shall have access to the Premises twenty-four (24) hours a day subject to emergencies and Landlord's Rules and Regulations. Entry to the Building shall be by access key card of which Landlord will provide a reasonable number for Tenant's employees as determined by Landlord, but any additional cards or replacements for lost cards shall be subject to a direct fee as set forth in the Rules and Regulations.

Subject to all rules, regulations and policies imposed by the University of Massachusetts-Dartmouth ("UMASS Dartmouth") and the availability of the same, Tenant shall have the right to use, in common with other tenants of the Building and other non-Building patrons of UMASS Dartmouth, the conference center located on the first floor of the Building (the "Conference Center"), it being understood that Tenant may not use such Conference Center or any equipment therein at any time without first scheduling such use with UMASS Dartmouth. In accordance with Exhibit I, Tenant shall not be obligated to pay a rental fee to UMASS Dartmouth for the use of the Conference Center.

Section 14.14 Parking Rights. Subject to the below provisions of this Section 14.14, Tenant shall have a non-exclusive revocable license to use Tenant's Proportionate Fraction of the parking spaces at no additional charge (except to the extent of Tenant's share of the common area maintenance expenses relating to such spaces) in common with other tenants of the Building, located on the Lot on a "first-come, first served" basis. In the event that Tenant shall not be able to use such percentage of spaces on the Lot, Tenant shall have the right to make up such deficient percentage by using the North Parking Areas to cover such deficiency, in common with other tenants of the Park, on a "first-come, first served" basis.

Landlord shall have the right in its sole discretion to adopt and subsequently amend rules and regulations regarding the use of the parking spaces on the Lot and on the North Parking Areas. Landlord also reserves the right to relocate, reconfigure, restripe or reduce the parking spaces located on the Lot and the North Parking Areas, subject to the terms and conditions set forth in this Lease, including without limitation, Section 2.1. Additionally, Landlord reserves the right to designate certain parking spaces or parking areas on the Lot or the North Parking Areas for parking by particular tenants and if Landlord does so, Landlord shall similarly designate certain parking spaces or parking areas for Tenant's use; provided that Landlord shall not provide unfavorable treatment to Tenant in designating such parking spaces or parking areas. As used in this Lease, the term "North Parking Areas" shall mean these areas shown on the plan attached hereto as Exhibit G as the "North Parking Areas."

Section 14.15 Confidentiality. Tenant agrees that, except as required by law, it will not reveal, without the prior written consent of Landlord, the terms and conditions of this Lease, including but not limited to amounts of Rent, or the results of an audit of the Building's common area maintenance expenses performed by Tenant, to any other tenants of the Building or the Park (or such other tenants' assignees or subtenants) or to any parties with whom Landlord is negotiating to lease space in the Building or the Park.

WITNESS the execution hereof under seal as of the day and year first above written.

TENANT:

AVANT IMMUNOTHERAPEUTICS, INC.

By: /s/ Una S. Ryan
Name: Una S. Ryan
Title: President and Chief Executive Officer

LANDLORD:

MASSACHUSETTS DEVELOPMENT FINANCE AGENCY

By: /s/ David T. Slatery
Name: David T. Slatery
Title: President and C.E.O.

EXHIBIT A

Plan of Premises

EXHIBIT B

Description of Land

"New Lot 34 Area 3.83 Acres" as shown on a plan entitled: "Subdivision Plan of Land of the Former Kerr Mill Site in Fall River, Massachusetts … May 25, 2000 Rev. July 27, 2000 Rev Oct. 31, 2000 Freeman Engineering Company … Attleboro, Mass. Sheet 1 of 2" recorded in the Bristol County Registry of Deeds in Book 120, Pages 52 and 53.

EXHIBIT C

Activity and Use Limitation

Activity & Use Limitation – Disposal Site: Kerr Mill Redevelopment Project, DEP Release Tracking No. 4-282, a copy of which is located at Landlord's offices.

EXHIBIT D

RULES AND REGULATIONS

1. The sidewalks, entrances, driveways, passages, courts, elevators, vestibules, stairways, corridors or halls shall not be obstructed or encumbered by any tenant or used for any purpose other than for ingress to and egress from the Premises and for delivery of merchandise and equipment in a prompt and efficient manner using elevators and passageways designated for such delivery by Landlord. All hand trucks used by tenants for deliveries in the Building shall be equipped with rubber tires and sideguards and the tenants shall be solely responsible for any damage caused by them or their agents during any deliveries to the Premises.

2. The water and wash closets and plumbing fixtures shall not be used for any purposes other than those for which they were designed or constructed and no sweepings, rubbish, rags, acids or other substances shall be deposited therein, and the expense of any breakage, stoppage, or damage resulting from the violation of this rule shall be borne by the tenant who, or whose clerks, agents, employees or visitors, shall have caused it.

3. No carpet, rug or other section shall be hung or shaken out of any window of the building; and no tenant shall sweep or throw or permit to be swept or thrown from the Premises any dirt or other substances into any of the corridors or halls, elevators, or out of the doors or windows or stairways of the Building, and Tenant shall not use, keep or permit to be used or kept any foul or noxious gas or substance in the Premises, or permit or suffer the Premises to be occupied or used in a manner offensive or objectionable to Landlord or other occupants of the Building by reason of noise, odors, and/or vibrations, or interfere in any way with other tenants or those having business therein, nor shall any bicycles, vehicles or animals of any kind be kept in or about the Building.

4. No curtains, blinds, shades, or screens shall be attached to or hung in, or used in connection with, any window or door of the Premises without the prior consent of Landlord. Such window treatments shall be of a quality, type, design and color, and attached in a manner approved by Landlord.

5. No sign, advertisement, notice or other lettering shall be exhibited, inscribed, painted or affixed by any tenant on any part of the outside of the Premises or the Building or on the inside of the Premises if the same is visible from the outside of the Premises without the prior written consent of Landlord, except that the name of the Tenant may appear on the entrance door of the Premises and on the lobby and main Building directories, to the extent the same exist. In the event of the violation of the foregoing by any tenant, Landlord may remove same without any liability, and may charge the expense of removal to any tenants violating this rule. Interior signs on doors and directory tablet shall be inscribed, painted or affixed for each tenant by Landlord at the expense of Landlord, and shall be of a size, color and style acceptable to Landlord.

6. No tenant shall mark, paint, drill into, or in any way deface any part of the Premises or the Building of which they form a part. No boring, cutting or stringing of wires shall be permitted, except with the prior written consent of Landlord, and as Landlord may direct. No tenant shall secure any floor covering with cement or other similar adhesive material.

7. Except as may be approved in advance by Landlord, which approval shall not be unreasonably withheld or delayed, no additional locks or bolts of any kind shall be placed upon any of the doors or windows by any tenant, nor shall any changes be made in existing locks or mechanism thereof. Landlord hereby approves the installation by Tenant of a security card reader system and a locking mechanism for the Premises. Each tenant must, upon the termination of his Tenancy, restore to Landlord all keys of stores, offices and toilet rooms, either furnished to, or otherwise procured by, such tenant, and in the event of the loss of any keys, so furnished, such tenant shall pay to Landlord the cost thereof.

8. Freight, furniture, business equipment, merchandise and bulky matter of any description shall be delivered to and removed from the Premises only during hours and in a manner approved by Landlord. Landlord reserves the right to inspect all freight to be brought into the Building and to exclude from the Building all freight which violates any of these rules and regulations or the Lease of which these rules and regulations are a part.

9. Canvassing, soliciting and peddling in the Building is prohibited and each tenant shall cooperate to prevent the same.

10. Landlord reserves the right to exclude from the Building between the hours of 6 p.m. and 8 a.m. and at all hours on Sundays, and legal holidays all persons who do not present a pass to the Building signed by Landlord. Landlord will furnish passes to persons for whom any tenant requires same in writing. Each tenant shall be responsible for all persons for whom he requests such pass and shall be liable to Landlord for all acts of such persons.

11. Landlord shall have the right to prohibit any advertising by any tenant which, in Landlord's opinion, tends to impair the reputation of the Building or its desirability as a Building for offices, and upon written notice from Landlord, such tenant shall refrain from or discontinue such advertising.

12. Except in compliance with the provisions of Section 10.3 in connection with the same, Tenant shall not bring or permit to be brought or kept in or on the Premises, any inflammable, combustible or explosive fluid, material, chemical or substance, or cause or permit any odors of cooking or other processes, or any unusual or other objectionable odors to permeate in or emanate from the Premises.

13. If the Building contains central air conditioning and ventilation Tenant agrees to keep all windows closed at all times and to abide by all rules and regulations issued by Landlord with respect to such services.

14. If the Premises demised to any tenant become infested with vermin, such tenant, at its sole cost and expense, shall cause its Premises to be exterminated from time to time, to the satisfaction of Landlord, and shall employ an exterminator approved by Landlord.

15. Smoking in the Building is prohibited. Tenant and the employees of Tenant shall not violate any law regulating tobacco smoking in the Building, including the Premises and the common areas, (including but not limited to elevators, stairwells, lobbies and restrooms) of the Building. In the event Tenant or its employees violate any such law, Tenant shall be responsible for payment of all fines and penalties assessed against Landlord.

EXHIBIT E

List of Approved Specialized Tenant Improvements

[To Be Attached After Lease Execution Per Section 10.3]

EXHIBIT F

[Attach Space Plan]

EXHIBIT G

Attach Plan Showing North Parking Areas

EXHIBIT H

Exclusions from Common Area Maintenance Expenses

Notwithstanding anything herein to the contrary, the following shall not be included in the calculation of common area maintenance expenses:

1. wages, salaries or fringe benefits paid for any employee above the grade of Building manager or the wages or indirect compensation of any employee to the extent such employee devotes his or her time to property other than the Building or the Lot;

2. Costs of repairs or other work necessitated by fire, windstorm, casualty or other insurable occurrence, including costs subject to Landlord's deductibles, and costs of repairs or other work necessitated by the exercise of the power of eminent domain;

3. The cost of capital repairs, replacements or improvements except that the annual amortization (determined in accordance with GAAP principles) of the following capital expenditures (together with Landlord's annual financing charges in connection therewith) may be included by Landlord in common area maintenance expenses: (i) reasonable replacements and repairs of worn out or obsolete components of the Building or its systems or mechanical equipment, (ii) capital expenditures incurred to reduce other common area maintenance expenses provided that the annual amortization that can be included in common area maintenance expenses shall not exceed the reasonably anticipated amount of average annual savings created thereby; and (iii) capital expenditures incurred in order to comply with a law, ordinance, regulation or ruling first enacted after the date of this lease (collectively, "Pass-Through Capital Expenditures");

4. Payments to any subsidiary or affiliate of Lessor substantially in excess of the amount that would be paid for similar goods or services on an arms-length basis between unrelated third parties;

5. Management fees substantially in excess of market management fees charged for comparable buildings in the rental market in which the Premises is located;

6. Any costs of services or utilities used or consumed in premises leased or leasable to lessees or occupants if Tenant's use or consumption of the applicable utility or service is separately metered or submetered;

7. Any increases in premiums for any insurance maintained by Landlord resulting from the extra-hazardous activities of parties other than Tenant, but only to the extent the same are separately allocated by the insurer;

8. Leasing commissions, attorneys' fees, costs, disbursements and other expenses incurred by Landlord or its agents in connection with negotiations for leases or other occupancy agreements, and similar costs incurred in connection with disputes with and/or enforcement of leases or other occupancy agreements;

9. "Tenant allowances," "tenant concessions," workletters, and other costs or expenses (including permit, license and inspection fees) incurred in completing, fixturing, furnishing, renovating or otherwise improving, decorating or redecorating space for lessees or other occupants, or vacant, leasable space, including space planning/interior architecture fees for same;

10. Payments of principal, finance charges, or interest on debt or amortization on any mortgage, deed of trust or other debt financing or refinancing, and rental payments (or increases in same) under any ground or underlying lease or leases;

11. Any bad debt loss, rent loss or other reserve for bad debt or rent loss;

12. Interest, fines or penalties for any late payments by Landlord not due to the act or neglect of Tenant or its agents, contractors or employees;

13. Legal fees, late charges and penalties incurred in connection with Landlord's violation of law;

14. Costs resulting from the gross negligence or willful misconduct of Landlord, its employees, agents and/or contractors and not reimbursed by insurance;

15. Advertising and promotional expenses and costs associated with maintaining Landlord's corporate (or other entity) existence and other overhead and administrative costs of Landlord not directly incurred in the operation and maintenance of the Building or the common areas;

16. Costs incurred in connection with the making of repairs or replacements which are the obligation of any other tenant;

17. Political contributions or contributions to charitable organizations;

18. Costs or fees relating to the defense of Landlord's title to or interest in the Building, or the appurtenant land, or any part thereof;

19. Depreciation or amortization of the Building or the appurtenant land, or its components or the common areas, except for the amortization of capital improvements, repairs or replacements permitted to be included in common area maintenance expenses under this Lease;

20. Any costs in connection with an expansion of the rentable area of the Building, or any costs incurred in connection with any additions to the common areas, including the purchase of additional land or other development rights;

21. The cost of any item or service for which Tenant separately reimburses Landlord or pays to third parties, or that Landlord provides selectively to one or more, but not all tenants of the Building, other than Tenant, whether or not Landlord is reimbursed by such other tenant(s), including, without limitation, the actual cost of any special electrical, heating, ventilation or air conditioning required by any lessee that exceeds the standard for the Building;

22. Any personal property taxes of Landlord for equipment or items not used directly in the operation or maintenance of the Building, the Lot or the common areas.

23. Costs of correcting any violation of any applicable building, health or fire codes or other applicable law relating to the Building, which violation was in existence prior to the date of this Lease (an "Existing Violation"), except that if a particular Existing Violation does not either (i) cost in excess of ***Confidential Treatment Requested as to this Information*** to remedy or (ii) relate to "Existing Hazardous Substances" (as such term is defined below), the cost of remedying any such particular Existing Violation may be included by Landlord in common area maintenance expenses.

24. Costs to correct a defect in the original construction of the Building or the common systems serving the Building, the Lot or the Park (including without limitation the sewer pumping station, the vapor barrier and the sub-slab venting system in the Building) that exceed, with respect to a particular defect, more than ***Confidential Treatment Requested as to this Information*** to remedy.

25. Reserves, except that Landlord may include reserves in common area maintenance expenses that do not exceed 5% of the prior year's common area maintenance expenses for the Building, except that reserves for any capital expenditures that are not "Pass – Through Capital Expenditures" (as such term is defined in Item No. 3 above) shall not be included in common area maintenance expense reserves.

26. Costs expended to remediate any hazardous substances located on, in or under the Building or the Lot, whether known or unknown, to the extent the same exist as of the date of this Lease ("Existing Hazardous Substances"), or which hazardous substances remediation is required as a result of the acts, omissions or uses of Landlord, its agents, employees, contractors, invitees, or tenants, and except to the extent the costs of such remediation constitute capital expenditures.

EXHIBIT I

[Attach Letter from UMASS Dartmouth Regarding Non-Payment by Tenant of Conference Center Rental Fee]

Confidential Treatment Requested As To Certain Information Contained In This Exhibit

SECURITY AGREEMENT: EQUIPMENT

(Dated and effective as of December 22, 2003)

WHEREAS, Massachusetts Development Finance Agency, a body politic and corporate and a public instrumentality under the laws of the Commonwealth of Massachusetts with its principal office at 75 Federal Street, Boston, Massachusetts 02110 (together with its successors and/or assigns, the "***Lender***") has agreed to make a loan to AVANT Immunotherapeutics, Inc., a Delaware corporation with its principal office located at 119 Fourth Avenue, Needham, Massachusetts 02494 (the "***Debtor***"), such loan being evidenced by that certain Secured Promissory Note: Equipment Loan made by Debtor as of the date hereof to the order of the Lender (the "***Note***"). This Security Agreement, the Note and any UCC-1 financing statements executed in connection with this Security Agreement, as each may be amended or modified from time to time, are referred to herein, collectively, as the "***Loan Documents***".

WHEREAS, Lender is willing to extend the above-described loan and enter into the transactions contemplated by the Loan Documents, provided that, among other things, Debtor shall execute and deliver this Security Agreement (the "***Agreement***") and grant the security interests in and liens upon its assets to Lender upon the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in order to induce Lender to enter into the Loan Documents, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions. Terms not defined herein shall have the meanings ascribed to them, if any, under the UCC of the Commonwealth of Massachusetts (as amended or revised from time to time, the "***UCC***"). In addition to the terms defined elsewhere in this Agreement, the following terms shall have the meanings set forth below:

"***Collateral***" means all personal property and fixtures of Debtor of every kind and description, tangible or intangible, whether now or hereafter existing, whether now owned or hereafter acquired, and wherever located, but only to the extent acquired by Debtor with the proceeds of the Note or for which Debtor was reimbursed for its costs of acquiring the same with the proceeds of the Note, together in all cases with (a) all attachments, accessions, accessories, tools, parts, supplies, increases, and additions to and all replacements of and substitutions for any property described above, (b) with respect to equipment and software, any and all licenses, options, warranties, service contracts, program services, test rights, maintenance rights, support rights, improvement rights, renewal rights and indemnifications and any model conversions, (c) all proceeds and products of any of the property described above, including, without limitation, insurance proceeds, and (d) all records and data relating to any of the property described above, whether in the form of a writing, photograph, microfilm, microfiche, or electronic media, and all

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of Debtor's right, title, and interest in and to all software required to utilize, create, maintain and process any such records or data on electronic media.

"Costs" means all fees, costs and expenses of the Lender incurred in connection with or as a result of: (a) the default, collection, waiver or amendment of any terms of the Loan Documents or the Obligations; (b) the Lender's exercise, preservation or enforcement of any of its rights, remedies or options under the Loan Documents (including without limitation in connection with any disposition of the Collateral); (c) the granting, perfecting and protecting of liens upon and security interests in any Collateral now or hereafter securing the Obligations; and (d) the prosecution or defense of any claim in any way arising out of, related to or connected with any of the Loan Documents; including in each case, without limitation, (i) reasonable fees and expenses of outside legal counsel, (ii) reasonable accounting, consulting, brokerage or other similar professional fees or expenses, (iii) any reasonable fees and expenses associated with any appraisals or examinations conducted in connection with the Collateral, (iv) all filing fees and other taxes and fees payable or determined to be payable in connection therewith, including, without limitation, documentary, stamp and similar taxes and assessments and all recording and filing fees charged by any governmental body or authority; and (v) all other costs and expenses incurred by the Lender as are payable by the Debtor under any of the Loan Documents.

"***Lease***" means the Lease of even date herewith between Lender, as landlord, and Debtor, as tenant, evidencing the lease of approximately 11,756 square feet of space at the premises located at 151 Maritime Street, Fall River, Massachusetts (the "***Premises***").

"***Obligations***" means all indebtedness, obligations and liabilities, direct or indirect, matured or unmatured, primary or secondary, certain or contingent, of Debtor to Lender, under this Agreement, the Note, or any other Loan Document, and the Lease, and whether now or hereafter owing or incurred, including, without limitation, all Costs. Lender acknowledges and agrees that Debtor's indebtedness, obligations and liabilities under the Lease shall only constitute Obligations hereunder so long as any amounts are due and owing under the Note.

2. Grant of Security Interest. As security for the prompt and unconditional payment and performance of the Obligations, Debtor hereby pledges, assigns and transfers to Lender and grants to Lender a continuing first priority security interest in the Collateral. The security interest granted hereby shall continue to be effective, irrespective of any retaking and redelivery of Collateral to Debtor, until all Obligations have been paid in full or are otherwise fully satisfied.

3. Perfection; Third Parties; Further Assurances. Debtor authorizes Lender to file all UCC financing statements, and amendments thereto and continuations thereof, describing the Collateral necessary to perfect Lender's security interest hereunder. Debtor agrees to take whatever other actions are requested by Lender to perfect and continue Lender's first priority security interest in the Collateral. The Collateral is and shall remain personal property even though all or any portion of the Collateral may hereafter become attached or affixed to real property, and Debtor shall provide Lender, upon Lender's written request, with disclaimers and waivers from landlords, mortgagees or any other persons holding any interest in the real property where any Collateral may be located, acceptable in all respects to Lender, which may be

necessary or advisable in the sole discretion of Lender to confirm that the security interest and rights of Lender in the Collateral are and will remain valid against all other parties.

4. Representations, Warranties, Acknowledgments and Covenants. Until all Obligations have been paid in full or are otherwise fully satisfied, Debtor hereby represents, warrants, covenants and agrees that:

(a) Debtor has and has duly exercised all requisite power and authority to enter into this Agreement, to pledge and grant a security interest in the Collateral and to carry out the transactions contemplated by this Agreement; and this Agreement has been duly executed and delivered by Debtor and is the legal, valid, and binding obligation of Debtor enforceable against it in accordance with the terms hereof except as enforceability is limited by bankruptcy, insolvency, reorganization, moratorium, or other laws relating to or affecting generally the enforcement of creditors' rights and except to the extent that availability of the remedy of specific performance, injunctive relief or other equitable remedies is subject to the discretion of the court before which any case or proceeding therefor may be brought.

(b) the execution and delivery of this Agreement and the performance of Debtor's obligations hereunder, do not and shall not require the approval of, or the giving of notice to, or the consent of, any third party (including, without limitation, any federal, state, local or foreign governmental authority), and do not and shall not contravene any law binding on Debtor or contravene Debtor's charter documents or by-laws, or any agreement, indenture, or other instrument to which Debtor is a party or by which it may be bound;

(c) Debtor does now (and will in the future, upon payment in full of the invoice price of each item of equipment included within the Collateral) lawfully possess and own the Collateral;

(d) except for the security interest granted herein, Debtor has and, upon payment in full of the invoice price of each item of equipment included within the Collateral, will have good and marketable title to the Collateral; the Collateral is free from and will be kept free from all liens, claims, security interests, attachments and encumbrances; no financing statement covering the Collateral or any proceeds thereof is now or shall be on file in favor of anyone other than Lender; and Debtor shall defend Lender's rights in the Collateral against the claims and demands of all other persons;

(e) Debtor will not misuse, fail to keep in good repair, sell, assign, rent, lend, encumber, transfer, secrete or otherwise dispose of any of the Collateral or any interest therein, nor permit or contract to do any such act (each such act, a "***Transfer***") except:

(i) that a Transfer may occur to (A) an entity that controls, is under common control with, or is controlled by Debtor; (B) an entity with whom Debtor merges or consolidates, or (C) to an entity that acquires all or substantially all of Debtor's assets (each of such entities, an "***Approved Entity***") so long as (1) Debtor provides Lender at least thirty (30) days' prior notice of such proposed Transfer, (2) the Approved Entity assumes, in a writing to Lender, all of Debtor's obligations under the Loan Documents, (3) Debtor remains liable, on a joint and several basis with the Approved Entity, for all of Debtor's obligations under the Loan

Documents, and (4) Debtor and the Approved Entity shall take all actions requested by Lender to confirm Lender's security interest in the Collateral described in this Agreement;

(ii) for a Transfer consented to by Lender to an entity other than an Approved Entity, provided that Lender's consent shall not be unreasonably withheld, conditioned or delayed, but, in addition to any other grounds for denial, Lender's consent shall be deemed reasonably withheld if Lender, in its capacity as the Landlord under and as defined in the Lease, withholds its consent to any assignment, sublease, license or other transfer of the Lease to the proposed transferee; or

(iii) Debtor may sell such of the Collateral as consists of obsolete or surplus equipment if either (A) Debtor pays to Lender an amount equal to the then-outstanding principal portion of the Obligations attributable to the equipment being sold, or (B) Debtor grants to Lender a first-priority security interest in replacement equipment having an aggregate fair market value (as determined by Lender in its good faith, reasonable discretion) equal to or greater than the then-outstanding principal portion of the Obligations attributable to the equipment being sold such that the replacement equipment becomes Collateral hereunder;

(f) if any Collateral becomes the subject of any instrument, chattel paper, negotiable document of title, including any warehouse receipt or bill of lading, or if any Collateral at any time consists of certificated investment property, Debtor shall deliver such instrument, paper or document or the certificates evidencing such investment property to Lender, together with such assignments in blank or other documents of transfer as Lender shall request;

(g) Debtor shall defend at Debtor's own cost any action, proceeding or claim affecting the Collateral;

(h) Debtor shall pay promptly all taxes, assessments, license fees and other public or private charges when levied or assessed against the Collateral;

(i) Upon at least three (3) days' prior notice, except during the pendency of an Event of Default that extends beyond the expiration of applicable notice and cure periods, and except in the case of an emergency, when in each case no prior notice shall be required, Debtor shall permit Lender and its agents to enter into the portions of the Premises that are not one of the Controlled Areas (as defined below) at reasonable times, to examine and inspect the Collateral and to inspect and make abstracts from records of Debtor concerning the Collateral; provided, however, that except in the case of an emergency or during the pendency of an Event of Default that extends beyond the expiration of applicable notice and cure periods, such access shall only be performed when escorted by a representative of Debtor. Lender acknowledges that Debtor's business operations require strict compliance with federal and state regulations regarding the development, production and testing of human use biological products and, therefore, Lender covenants that its representative (and any access of the Premises or examination of the Collateral by Lender or anyone claiming by, through or under Lender) shall comply in all respects with such regulations;

(j) Debtor intends to use certain portions of the Premises for experimentation, testing and development of highly sensitive materials and vaccines and, in order to establish the

necessary control setting for such experimentation, testing, and development, such portions of the Premises (each such portion a "***Controlled Area***" and collectively the "***Controlled Areas***") will need to be segregated and properly sealed off from the other portions of the Premises. Upon at least three (3) days' prior notice, except during the pendency of a monetary or other material Event of Default that extends beyond the expiration of applicable notice and cure periods, and except in the case of emergency which requires immediate access to the Controlled Areas, when in each case no prior notice shall be required, Debtor shall permit a Qualified Representative of Lender (as defined below) to enter the Controlled Areas at reasonable times to perform inspections of any Collateral in the Controlled Areas; provided, that, except during the pendency of a monetary or other material Event of Default that extends beyond the expiration of applicable notice and cure periods, and except in the case of an emergency which requires immediate access to the Controlled Areas, such entry by a Qualified Representative of Lender shall only be performed when escorted by a representative of Debtor. A "***Qualified Representative of Lender***" shall mean an individual that possess the credentials and the training required to enter and inspect a facility (i) regulated by the FDA and (ii) which is engaged in business operations of the type Debtor will be carrying on in the Premises. Lender shall submit information and documentation reasonably required by Debtor or any other governmental entity to establish an individual's qualification as a Qualified Representative of Lender in advance of any such entry and Debtor shall reasonably cooperate in good faith with Lender in approving such individual as a Qualified Representative of Lender. Lender shall apprise the Qualified Representative of Lender of the sensitivity of Debtor's operations that are to be conducted in the Controlled Areas and shall use all diligent, good faith efforts to cause such party to adhere to all applicable legal requirements, all requirements of the FDA applicable to such access and Debtor's reasonable guidelines and safety rules for entering the Controlled Areas, including wearing protective clothing and masks before entering the Controlled Areas in order to protect the processes that Debtor will be conducting in the Controlled Areas.

(k) Within 120 days after the end of each of its fiscal years, Debtor shall deliver to the Lender a copy of Debtor's income statement, balance sheet and any other related financial statements for the fiscal year then ended, which statements shall have been prepared in accordance with GAAP (except as otherwise noted therein) and audited by independent certified public accountants reasonably acceptable to the Lender; within 45 days after the end of each of Debtor's fiscal quarters, Debtor shall deliver to the Lender a copy of Debtor's management-prepared income statement, balance sheet and any other related financial statements for the fiscal quarter then ended, which statements shall have been prepared in accordance with GAAP (except as otherwise noted therein); the Lender hereby waives the foregoing financial reporting obligations during such time as Debtor remains obligated to file periodic reports pursuant to Section 12 or Section 15(d) of the Securities Exchange Act of 1934, as amended, provided that during such time, Debtor shall provide Lender with copies of its 10K and 10Q reports promptly after the filing of the same with the Securities and Exchange Commission;

(l) Debtor's correct legal name, jurisdiction of organization, employer identification number and, if applicable, state organizational number are as set forth on the signature page hereto, and Debtor shall give Lender sixty (60) days' prior written notice before changing any such name, jurisdiction of organization or number(s) and shall take all actions required by virtue of any such change to continue the perfection of the security interest granted to Lender hereunder;

(m) Debtor shall promptly notify Lender of any Event of Default (as defined below in Section 7) or any event causing a substantial loss or diminution in the value or functional utility of all or any material part of the Collateral, or affecting Lender's rights or remedies hereunder with respect to the disposition of all or any material part of the Collateral;

(n) Debtor understands that Lender's agreement to enter into this Agreement and extend the loan evidenced by the Note was predicated on Debtor's agreement to use all diligent, commercially reasonable efforts to create and retain jobs at the Premises. Accordingly, Debtor shall create and fill ***Confidential Treatment Requested as to this Information*** new employment positions to be staffed at its facility located at the Premises no later than the date Debtor obtains a final certificate of occupancy for the Premises ("***Debtor's Occupancy Date***") and shall use all diligent, commercially reasonable efforts to maintain the same while any Obligations remain outstanding. Debtor shall also add ***Confidential Treatment Requested as to this Information*** other employment positions to be staffed at its operations at the Premises, either by transferring positions from other facilities to the Premises or by creating new positions (or by a combination of the two), within one (1) year after Debtor's Occupancy Date, and Debtor shall use all diligent, commercially reasonable efforts to maintain the same while any Obligations remain outstanding. Debtor shall deliver a certificate to Lender, within fifteen (15) days after Debtor's Occupancy Date, certifying as to Debtor's compliance with the ***Confidential Treatment Requested as to this Information*** employment creation requirements of this Section, shall deliver a certificate to Lender, within fifteen (15) days after the first (1^{st}) anniversary of Debtor's Occupancy Date, certifying as to Debtor's compliance with the employment creation and/or transfer requirements of this paragraph, and shall deliver a certificate to Lender, within fifteen (15) days after the end of each calendar quarter thereafter, certifying as to Debtor's compliance with the employment maintenance requirements of this Section; and

(o) Debtor is in material compliance with, and shall hereafter comply with and use its assets in material compliance with, all statutes, regulations, ordinances, directives, and orders of any federal, state, municipal, and other governmental authority which has or claims jurisdiction over Debtor, any of Debtor's assets, or any person in any capacity under which Debtor would be responsible for the conduct of such person (including, without limitation, those relating to labor and employment.

All representations and warranties made herein shall survive until such time as all of the Obligations have been paid in full or are otherwise fully satisfied.

5. Insurance. For so long as any Obligations remain outstanding, Debtor shall maintain, with insurers reasonably acceptable to Lender, (a) fire, theft and property damage insurance with extended or combined additional coverage on the Collateral for the full replacement value thereof, and (b) comprehensive general liability insurance with policy limits and other terms customary to companies of similar size in Debtor's industry . Each such policy shall contain a standard mortgagee's long form endorsement showing Lender as loss payee and additional insured, as its interest may appear, which endorsement shall provide at least thirty (30) days' prior written notice to Lender of any material change, cancellation or non-renewal of coverage. Debtor shall deliver certificates evidencing such insurance to Lender upon Lender's reasonable request.

6. Default. Time is of the essence in the payment and performance of all Obligations. It shall be an "***Event of Default***" hereunder if (a) a Note Default (as defined in the Note) occurs and is not waived or cured within the time period applicable thereto, if any, (b) Debtor breaches any representation, warranty, covenant or provision hereof (other than the obligation to pay the Obligations or to maintain insurance as set forth above in Section 5 and except for a breach of the provisions of Section 4(n) hereof (other than a breach of Debtor's obligations to provide the certificates described therein), which breach shall not constitute an Event of Default), and such breach is not cured within ten (10) days after notice from Lender, (c) Debtor fails to maintain insurance as set forth above in Section 5, (d) a material portion of the Collateral is lost or destroyed, (e) other than as a result of Lender's failure to file UCC-1 financing statements (or continuations thereof), the security interests granted hereunder are challenged as to either perfection or priority or if Lender's rights in the Collateral become materially impaired, or (f) the Obligations are accelerated for any reason.

The occurrence of a loss or destruction of a material portion of the Collateral described in clause (e) of this Section shall not constitute an Event of Default if proceeds of insurance on such portion are received by Lender and, at Debtor's election, either applied to the Obligations, or held in escrow by Lender for disbursement by Lender upon (A) the receipt by Lender of a written request from Debtor to use such proceeds to purchase items of equipment to replace the Collateral lost or destroyed, (B) the receipt by Lender of the manufacturers' invoices for such replacement items, specifying per item serial numbers and costs and indicating that the costs of such replacement items are, in the aggregate, equal to or greater than the aggregate fair market value (as determined by Lender in its good faith, reasonable discretion) of the Collateral lost or destroyed, and (C) the grant by Debtor to Lender of a first-priority security interest in such replacement items such that the same become Collateral hereunder.

7. Remedies. Upon the occurrence of an Event of Default hereunder, all Obligations, at Lender's option and without notice, shall become immediately due and payable, and Lender shall have all rights and remedies of a secured party under the UCC and any other applicable law, and in addition, and without limiting the foregoing, Lender may exercise the following rights and remedies, each of which Debtor hereby agrees are commercially reasonable:

(a) sell all or any part of the Collateral at public or private sale at such price(s) as Lender may deem satisfactory, and in connection with any such sale, Lender may give or refrain from giving such warranties of title, possession, quiet enjoyment and otherwise, and accept cash, promissory notes or other property in exchange for the Collateral, all as Lender may determine in its sole and absolute discretion; Lender shall not incur any liability as a result of the sale of any of the Collateral, or any part thereof, at any private sale which complies with the requirements of this Section; Debtor hereby waives, to the extent permitted by applicable law, any claims against Lender arising by reason of the fact that the price at which any of the Collateral, or any part thereof, may have been sold at such private sale was less than the price that might have been obtained at a public sale, even if Lender accepts the first offer deemed by Lender in good faith to be commercially reasonable under the circumstances and does not offer any of the Collateral to more than one offeree;

(b) require Debtor to assemble all or any part of the Collateral and any records pertaining thereto and make it available to the Lender at a place to be designated by the Lender;

(c) enter the premises of Debtor and take possession of the Collateral and any records pertaining thereto;

(d) to ask, demand, collect, sue for, recover, compromise, receive and give acceptance and receipts for moneys due and to become due under or in respect of any of the Collateral;

(e) receive, endorse, and collect any drafts or other instruments, documents and chattel paper, in connection with the Collateral;

(f) to file any claims or take any action or institute any proceedings which Lender may deem necessary or desirable for the collection of any of the Collateral, or otherwise to enforce the rights of Debtor with respect to any of the Collateral; and

(g) grant extensions, compromise claims and settle accounts in any amount for less than face value or book value or otherwise without prior notice to Debtor.

Debtor hereby irrevocably authorizes Lender to endorse Debtor's name on all collections, receipts, instruments or other documents, and appoints Lender as Debtor's attorney-in-fact to exercise to the extent permitted by law all powers, rights and remedies necessary to enable Lender to exercise its rights hereunder. At any sale of the Collateral, unless prohibited by applicable law, Lender may bid for and purchase all or any part thereof so sold free from any right or equity of redemption of Debtor. In the event Lender seeks to take possession of any or all of the Collateral by court process, Debtor hereby irrevocably waives any bonds and any surety or security relating thereto required by any statute, court rule or otherwise as an incident to such possession, and waives any demand for possession prior to the commencement of any suit or action to recover with respect thereto. Any notice required to be given by Lender of a sale or other disposition or other intended action by Lender with respect to any of the Collateral or otherwise which is made in accordance with the terms of this Agreement at least five (5) days prior to such proposed action, shall constitute commercially reasonable notice to Debtor of any such action. Lender shall be liable to Debtor only for its gross negligence or willful misconduct in failing to comply with any applicable law imposing duties upon Lender. Lender's liability for any such failure shall be limited to the actual loss suffered by Debtor directly resulting from such failure, and Lender shall have no liability to Debtor in tort or for incidental or consequential damages.

8. Remedies Cumulative. Each right, power and remedy of Lender provided for in this Agreement or now or hereafter existing at law or in equity or by statute shall be cumulative and concurrent and shall be in addition to every other such right, power or remedy. The exercise or beginning of the exercise by Lender of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by Lender of all such other rights, powers or remedies. No course of dealing or delay or omission on the part of Lender in exercising any such right, power or remedy shall operate as a waiver thereof or otherwise be prejudicial thereto, nor shall any single or partial exercise thereof preclude any other or future exercise thereof or the exercise of any other such right, power or remedy.

9. Application of Moneys by Lender. All moneys collected upon any sale by or on behalf of Lender of the Collateral, together with all other moneys received by Lender hereunder or by virtue of payments made by Debtor, shall be applied as follows: (a) to the payment of all Costs; (b) then to satisfy the other Obligations; and (c) then to Debtor to the extent of any surplus proceeds. Debtor shall remain liable for any deficiency. To the extent that Debtor uses any of the proceeds of the Obligations to purchase Collateral, all moneys collected upon any sale by or on behalf of Lender of the Collateral, together

with all other moneys received by Lender hereunder or by virtue of payments made by Debtor, shall be applied on a "first-in, first-out" basis so that the portion of the Obligations used to purchase a particular item of Collateral shall be paid in the chronological order in which Debtor purchased the Collateral.

10. Lender's Exoneration. Lender may, but shall not be required to, take any action of any kind to collect, preserve or protect its or Debtor's rights in the Collateral. The powers conferred upon Lender pursuant to any appointment as Debtor's attorney-in-fact hereunder are solely for the purpose of protecting Lender's interests in the Collateral and shall not be deemed to impose any duty on Lender to exercise such powers. Debtor shall remain liable under each contract, instrument, license and other agreement constituting a portion of the Collateral to observe and perform all the conditions and obligations to be observed and performed by it thereunder, and Lender shall not be required or obligated in any manner (a) to perform or fulfill any of the obligations of Debtor, (b) to make any payment or inquiry, or (c) to take any action of any kind to collect, compromise or enforce any performance or the payment of any amounts which may have been assigned to it or to which it may be entitled at any time or times under or pursuant to any such contract, instrument, license or other agreement.

11. Waivers by Debtor. To the fullest extent permitted by applicable law, and except as otherwise set forth in this Agreement, Debtor waives: (a) presentment, demand and protest, and notice of presentment, dishonor, intent to accelerate, acceleration, protest, default, nonpayment, maturity, release, compromise, settlement, extension or renewal of any or all Loan Documents or any portion of the Collateral; (b) all rights to notice and a hearing prior to Lender's taking possession or control of, or to Lender's replevy, attachment or levy upon, any Collateral; (c) the benefit of all valuation, appraisal and exemption laws; (d) all rights to require Lender to marshal any present or future collateral security (including but not limited to this Agreement and the Collateral) for, or other assurances of payment of, the Obligations, or to resort to such collateral security or other assurances of payment in any particular order; and (e) the performance by Lender of any duties imposed by the UCC upon secured parties; provided, however, that to the extent that the UCC prohibits the waiver of such performance, Debtor acknowledges that Lender's performance shall be measured by a commercial reasonableness standard. Debtor acknowledges that it has been advised by counsel of its choices and decisions with respect to this Agreement and the transactions evidenced hereby, including, without limitation, with respect to the waivers set forth in this Section.

12. Powers of Attorney. It is hereby acknowledged that each power of attorney granted hereunder is coupled with an interest. Debtor hereby irrevocably appoints Lender as Debtor's attorney-in-fact, with full authority in the place and stead of Debtor and in the name of Debtor or otherwise, from time to time in Lender's discretion, to take any action and to execute any instrument which Lender may deem necessary or advisable to accomplish the purposes of

this Agreement, including, without limitation, in connection with the exercise of the rights and remedies granted to Lender hereunder.

13. Termination; Revival of Security Interest. At such time as the Obligations have been paid in full or are otherwise fully satisfied and Lender shall be under no further obligation to extend credit to or enter into credit arrangements with Debtor, under the Loan Documents or otherwise, this Agreement shall terminate and, at the expense of Debtor, Lender will release its security interest in, and will duly assign, transfer and deliver to Debtor such of the Collateral as has not theretofore been sold or otherwise applied or released pursuant to this Agreement. To the extent that Debtor makes a payment or other transfer to Lender, or Lender receives any payment of proceeds of Collateral, which is later invalidated, declared to be a fraudulent transfer or preference, set aside or required to be repaid under any bankruptcy law, other law or equitable principle, Lender's security interest in the Collateral shall be revived and continue as if the payment, transfer or proceeds had never been received by Lender.

14. Lender May Perform. If Debtor fails to perform any agreement or obligation contained herein within the time periods for performance set forth herein, Lender may, upon five (5) days' prior written notice to Debtor, perform or cause the performance of such agreement or obligation, and the costs and expenses of Lender incurred in connection therewith shall constitute Costs and shall be payable by Debtor forthwith upon demand.

15. Demands and Notices. All notices, requests and demands permitted or required under the terms of this Agreement shall be in writing, and shall be deemed to have been given when delivered by hand, when sent by facsimile (transmission confirmed), 1 day after delivery to any national overnight delivery service (delivery charges prepaid), or 3 days after deposit in the U.S. mails (postage prepaid, certified and return receipt requested), and addressed to the parties at their respective addresses appearing in the initial paragraph hereof or to such other address as a party may designate in a written notice to the other party given in accordance with this Section. Notices to Debtor shall be sent as aforesaid to the attention of Mr. Michael Furlong (or his successor as Senior Director, Business Development), with a copy to the Mr. Avery Catlin (or his successor as Chief Financial Officer).

16. Amendments, Waivers, Etc. No provision of this Agreement can be changed, waived, discharged or terminated except by an instrument in writing signed by Lender and Debtor expressly referring to the provision of this Agreement to which such instrument relates and no such waiver shall extend to, affect or impair any right of Lender with respect to any Obligation which is not expressly dealt with therein. No course of dealing or delay or omission on the part of Lender in exercising any right, power or privilege hereunder or under the Loan Documents shall operate as a waiver thereof or otherwise be prejudicial thereto, nor shall any single or partial exercise thereof preclude any other or future exercise thereof or the exercise of any other right, power or privilege hereunder or thereunder.

17. Further Assurances. Debtor at its sole cost and expense agree to do all such things and execute, acknowledge and deliver all such documents and instruments as Lender from time to time may request in order to give full effect to this Agreement and to perfect and preserve the rights and powers of Lender hereunder.

18. Conflicts. In the event of any conflict between any provision of this Agreement and the Loan Documents or any other document evidencing the Obligations or Lender's security interest in the Collateral, it is the express and absolute understanding and agreement of Debtor that this Agreement shall be interpreted so as to be consistent with such other agreements and documents and to give full effect to the rights granted to Lender herein and therein.

19. Provisions to Survive. All representations, warranties, covenants and agreements contained in this Agreement shall survive the execution and delivery hereof and of the Loan Documents and any other document executed in connection herewith or therewith and shall continue until the Obligations have been paid in full or are otherwise fully satisfied.

20. Governing Law; Consent to Jurisdiction. This Agreement is intended to take effect as a sealed instrument to be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, including without limitation the UCC (without regard to conflicts of law provisions). In any action or proceedings arising out of or relating to this Agreement or the interpretation or enforcement thereof, Debtor hereby absolutely and irrevocably (a) consents to the application of the laws of the Commonwealth of Massachusetts, including without limitation the UCC (without regard to conflicts of law provisions), and (b) agrees that the service thereof may be made in the manner and to the addresses specified for notices in this Agreement. Anything hereinbefore to the contrary notwithstanding, Lender may sue any Debtor in the courts of any country, state of the United States or place where a Debtor or any of its property or assets may be found or in any other appropriate jurisdictions (including, without limitation, the state and federal courts located in the Commonwealth of Massachusetts), and Debtor hereby waives any objection that it may have to the location of any such court in which Lender has commenced any proceeding. Debtor specifically acknowledges that application of Massachusetts law to any action or proceedings arising out of or relating to this Agreement or the interpretation or enforcement thereof constitutes a material inducement for Lender to enter into this Agreement and the Loan Documents.

21. Costs. All Costs shall be payable on demand, and interest shall accrue thereon at the highest rate chargeable under and in the manner set forth in the Note from date of such demand until payment in full.

22. Miscellaneous Provisions. This Agreement shall inure to the benefit of Lender and its successors and assigns, and shall be binding on Debtor and its successors, assigns and legal representatives. This Agreement may be assigned by Lender in connection with any assignment, transfer or other disposition (in whole or in part) of the Obligations or the Loan Documents by Lender. The rights and remedies herein provided are cumulative and not exclusive of any remedies provided by law or any other agreement. The invalidity or unenforceability of any one or more sections of this Agreement in their entirety or under certain circumstances shall not affect the validity or enforceability of its remaining provisions or the invalid or unenforceable provisions in different circumstances. Captions are for ease of reference only and shall not affect the meaning of the relevant provisions. The meanings of all defined terms used in this Agreement shall be equally applicable to the singular and plural forms of the terms defined.

24. WAIVER OF JURY TRIAL AND DAMAGES. DEBTOR AND LENDER

MUTUALLY HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE THE RIGHT TO TRIAL BY JURY IN ANY JURISDICTION, COURT AND PROCEEDING WITH RESPECT TO, IN CONNECTION WITH, OR ARISING OUT OF THE LOAN DOCUMENTS, THE OBLIGATIONS OR ANY INSTRUMENT OR DOCUMENT DELIVERED PURSUANT HERETO OR THERETO OR ANY COURSE OF CONDUCT, COURSE OF DEALINGS, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY, INCLUDING, WITHOUT LIMITATION, ANY COURSE OF CONDUCT, COURSE OF DEALINGS, STATEMENTS OR ACTIONS OF LENDER RELATING TO THE ADMINISTRATION OR ENFORCEMENT OF THE LOAN DOCUMENTS. DEBTOR AND LENDER AGREE THAT NEITHER PARTY WILL SEEK TO CONSOLIDATE ANY SUCH ACTION WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED. EXCEPT AS PROHIBITED BY LAW, DEBTOR WAIVES ANY RIGHT WHICH IT MAY HAVE TO CLAIM OR RECOVER IN ANY PROCEEDING ANY SPECIAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL OR OTHER TYPE OF DAMAGES OTHER THAN, OR IN ADDITION TO, ACTUAL DAMAGES. DEBTOR CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF LENDER HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT LENDER WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVERS. DEBTOR ACKNOWLEDGES THAT THE FOREGOING WAIVERS CONSTITUTE A MATERIAL INDUCEMENT FOR LENDER TO ENTER INTO THE LOAN DOCUMENTS AND ACCEPT THIS AGREEMENT. BY EXECUTING AND DELIVERING THIS AGREEMENT, DEBTOR CONFIRMS THAT THE FOREGOING WAIVERS ARE INFORMED AND FREELY MADE.

(Remainder of Page Intentionally Left Blank; Signature Page Follows)

IN WITNESS WHEREOF, the parties have executed this Security Agreement under seal as of the date first above written.

DEBTOR: AVANT Immunotherapeutics, Inc.

By: /s/ Una S. Ryan
(Signature)

Una S. Ryan, President and C.E.O.
(Printed Name and Title)

Jurisdiction of Organization: Delaware
Federal Employer Identification #: 13-3191702
State Organizational Identification #: 2023075

LENDER: Massachusetts Development Finance Agency

By: /s/ David T. Slatery
(Signature)

David T. Slatery, President and C.E.O.
(Printed Name and Title)

Confidential Treatment Requested As To Certain Information Contained In This Exhibit

SECURED PROMISSORY NOTE: EQUIPMENT LOAN

SUMMARY OF TERMS AND DEFINITIONS

Date of Note:	December 22, 2003
Principal Amount:	Not to exceed *** Confidential Treatment Requested as to this Information***
Maker:	AVANT Immunotherapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494
Lender:	Massachusetts Development Finance Agency 75 Federal Street Boston, MA 02110 The term Lender shall include successors and assigns of Massachusetts Development Finance Agency and any future holder of this Note, and any participants in this Note.
Maturity Date:	December 21, 2010
Interest Rate:	*** Confidential Treatment Requested as to this Information*** per annum
Loan Term:	84 months
Amortization Schedule:	*** Confidential Treatment Requested as to this Information***
Monthly Payment:	*** Confidential Treatment Requested as to this Information***, subject to adjustment as provided in Section 4 of this Note.
Payment Day:	The first day of each month during the Loan Term, commencing with January 1, 2004. If any such day is not a day when commercial banks are open for business in Boston, Massachusetts, then the applicable Payment Day shall be the next calendar day on which such banks are open for business.
Collateral:	All equipment now owned and acquired by the Maker, or hereafter acquired by the Maker, but only to the extent acquired by Maker, or for which Maker was reimbursed for its costs of acquiring the same, with the proceeds of this Note, together with all proceeds thereof, all as more particularly described in the Security Agreement of even date herewith between the Maker and the Lender.

Loan Documents:	This Note, the Security Agreement and any UCC-1 financing statements executed and delivered in connection therewith.
Obligations:	The Principal Amount, all interest accruing thereon at the Interest Rate, and all other payment obligations of the Maker under this Note.

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1. Promise to Pay; Payment. For value received, Maker does hereby promise to pay to Lender, or to order, at the office of Lender set forth above or at such other place or to such other party as the holder of this Note may from time to time designate, the Principal Amount of this Note (as adjusted pursuant to Section 4 of this Note), together with interest thereon, as follows: (a) on the first Payment Day, an amount equal to all interest that has accrued (at the Interest Rate) on the outstanding balance of the Principal Amount from the date hereof through the first Payment Day; (b) on each of the next eleven Payment Days, an amount equal to all interest that has accrued (at the Interest Rate) on the outstanding balance of the Principal Amount since the Payment Day immediately preceding each such Payment Day; (c) on all subsequent Payment Days, an amount equal to the Monthly Payment; and (d) on the Maturity Date, a payment in an amount equal to all then outstanding Obligations.

2. Calculation of Interest. Interest shall be calculated on the basis of a year of 360 days comprised of 12 months of 30 days each and, for partial months, on the basis of actual days elapsed. Interest on the Principal Amount shall be calculated as aforesaid and shall be payable in arrears on each Payment Day as part of the Monthly Payment.

3. Conditions of Funding; Use of Proceeds. The Lender shall have no obligation to advance any portion of the Principal Amount until (a) all of the documents set forth on Closing Agenda of even date herewith (describing, among other things, the loan evidenced hereby) have been executed and/or delivered to the Lender, and (b) the Maker shall have delivered manufacturers' invoices for the items of equipment to be purchased with the proceeds of each such advance, specifying on a per item basis the serial numbers and costs therefor, together with such other information concerning such items of equipment as the Lender shall reasonably request. The Maker shall use the proceeds of this Note solely to acquire, or to reimburse the Maker solely for the acquisition cost of, such items of equipment as the Lender shall approve in writing, such approval not to be unreasonably withheld, conditioned or delayed.

4. Draw Downs; Recalculation of the Monthly Payment. The Principal Amount shall be permanently reduced by any undisbursed portion thereof utilized by the Maker as a portion of the "Specialized TI Allowance" in accordance with Section 4.2 of the Lease. The Maker may request advances of the Principal Amount from the Lender (in aggregate amount not to exceed the Principal Amount) until the first anniversary of the date of this Note. Such requests shall specify the items of equipment to be acquired with the advances and shall be accompanied by manufacturers' invoices therefore, specifying per item serial numbers and costs, together with such other information as the Lender may reasonably request. If by the first anniversary of the date of this Note, the Maker has not requested advances equal to the full Principal Amount, then Lender's commitment to lend hereunder shall be reduced to the aggregate principal amount advanced as of such anniversary and the Monthly Payment shall be adjusted, effective as of the thirteenth Payment Day and all Payment Days thereafter, to be an amount sufficient to amortize the aggregate principal amount advanced hereunder, with interest accruing thereon at the Interest Rate, over a six (6) year amortization schedule.

5. Commitment Fee. In consideration of the extension of the loan evidenced hereby, Maker shall pay a commitment fee to the Lender in the amount of *** Confidential Treatment Requested as to this Information***, which fee shall be nonrefundable, and shall be deemed fully earned and shall be payable on the date hereof.

6. Application of Payments. All payments and collections hereunder shall be applied first to Lender's Costs, then to outstanding late charges, then to accrued and unpaid interest (including interest accrued at the default rate described herein), and then to reduce the Principal Amount then outstanding. As used in this Note, "Costs" has the meaning given to such term in the Security Agreement.

7. Prepayment. Maker may at any time during the Loan Term make payment in full or in part of the Principal Amount outstanding hereunder, provided that all other outstanding Obligations have first been paid in full, and if they have not, then the amounts intended to be principal prepayments will, at Lender's discretion, first be applied to such Obligations. Any partial prepayment applied to the Principal Amount will be applied to principal due at the end of the term of this Note and will not postpone or reduce the amount of the Monthly Payment.

8. Late Charge. If any Monthly Payment or other Obligation shall remain unpaid for a period of ten (10) days after the due date therefor, the Maker shall then pay to Lender, in addition to all other amounts payable hereunder, a late charge equal to five percent (5%) of the amount of such Monthly Payment or other Obligation.

9. Default Rate; Acceleration. If (a) any Monthly Payment or other Obligation shall remain unpaid for a period of thirty (30) days after the due date therefor, (b) a default or event of default as described in Section 12.1 of the Lease of even date herewith between the Maker and the Lender (the "Lease") occurs and is not waived or cured within the time period applicable thereto, if any, or (c) any event designated as an "Event of Default" in any other Loan Document occurs and is not waived or cured within the time period applicable thereto, if any (each of the foregoing, a "Note Default"), then (a) the Interest Rate shall be immediately and automatically increased by five percent (5%) per annum from the date of the Note Default until the date of such Note Default is cured, calculated on a daily basis, and (b) on the date of the expiration of the cure period applicable to a Note Default or at any time thereafter, the Lender may, upon written notice to Maker, declare all then-outstanding Obligations to be immediately due and payable. Notwithstanding Lender's option to accelerate, all then-outstanding Obligations shall automatically become immediately due and payable upon the occurrence of any of the following: (i) a proceeding under the United States Bankruptcy Code, as amended, and any similar or successor federal or state statute, or the rules and regulations promulgated thereunder, or under any other bankruptcy, reorganization, arrangement of debt, insolvency, readjustment of debt or receivership law or statute, is filed with respect to Maker; or (ii) Maker becomes insolvent or fails generally to pay its debts as they become due. Notwithstanding the foregoing provisions of this Section, the Lender acknowledges and agrees that any payment default under Section 9(a) above shall not constitute a default or an event of default under the Lease unless such payment default continues for five (5) days after notice from the Lender designating such default.

10. Waiver; Cumulative Remedies. Maker and all other parties who may be liable (whether as endorsers, guarantors, sureties or otherwise) for payment of any sum or sums due or to become due under the terms of this Note waive diligence, presentment, demand, protest, notice of dishonor, notice of intention to accelerate, notice of acceleration and notice of any other kind whatsoever (except for notices of defaults under this Note, the Security Agreement and/or the Lease that Lender has specifically agreed to give pursuant to the terms of this Note, the Security Agreement and/or Lease) and hereby consent to any number of renewals or extensions

at any time in the payment of this Note. No extension of time for payment of this Note made by any agreement with any person now or hereafter liable for payment of this Note shall operate to release, discharge, modify, change or affect the original liability of Maker under this Note, either in whole or in part. No delay or failure by Lender in exercising any right, power, privilege or remedy under the Loan Documents or applicable law shall be deemed to be a waiver of the same or any part thereof; nor shall any single or partial exercise thereof or any failure to exercise the same in any instance preclude any future exercise thereof, or exercise of any other right, power, privilege or remedy, and the rights and remedies provided for hereunder are cumulative and not exclusive of any other right or remedy available at law or in equity. Lender may proceed against all or any of the Collateral or against any guarantor hereof, or may proceed contemporaneously or in the first instance against Maker, in such order and at such times following default hereunder as Lender may determine in its sole discretion. All of the Obligations are absolute and unconditional, and shall not be subject to any offset or deduction whatsoever. Maker waives any right to assert, by way of counterclaim or affirmative defense in any action to enforce Maker's obligations hereunder, any claim whatsoever against the Lender of this Note, except for claims based solely on Lender's gross negligence or willful misconduct.

11. The Loan Documents. This Note is the Note referred to in the Loan Documents. Maker's acknowledges that payment and performance of all of the Obligations are secured by the Collateral.

12. Amendments; Notices. This Note may not be changed orally, but only by an agreement in writing signed by Maker and Lender. All notices, requests and demands permitted or required under the terms of this Note shall be in writing, and shall be deemed to have been given when delivered by hand, when sent by facsimile (transmission confirmed), 1 day after delivery to any national overnight delivery service (delivery charges prepaid), or 3 days after deposit in the U.S. mails (postage prepaid, certified and return receipt requested), and addressed to the parties at their respective addresses appearing on the first page hereof or to such other address as a party may designate in a written notice to the other party given in accordance with this Section. Notices to Maker shall be sent as aforesaid to the attention of the Mr. Michael Furlong (or his successor as Senior Director, Business Development), with a copy to Mr. Avery Catlin (or his successor as Chief Financial Officer).

13. Governing Law; Jurisdiction and Forum for Enforcement. This Note is executed and delivered by Maker in Boston, Massachusetts and is intended to take effect as a sealed instrument to be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts, (without regard to conflicts of law provisions). In any action or proceedings arising out of or relating to this Note or the interpretation or enforcement thereof, Maker hereby absolutely and irrevocably (a) consents to the application of the laws of the Commonwealth of Massachusetts (without regard to conflicts of law provisions), and (b) agrees that the service thereof may be made in the manner and to the addresses specified for notices in this Note. Anything hereinbefore to the contrary notwithstanding, Lender may sue any Maker in the courts of any country, state of the United States or place where Maker or any of its property or assets may be found or in any other appropriate jurisdictions (including, without limitation, the state and federal courts located in the Commonwealth of Massachusetts), and Maker hereby waives any objection that it may have to the location of any such court in which Lender has commenced any proceeding. Maker specifically acknowledges that application of Massachusetts law to any

action or proceedings arising out of or relating to this Note or the interpretation or enforcement thereof constitutes a material inducement for Lender to accept this Note and to enter into the Loan Documents.

14. Severability; Usury. If any provision of this Note shall be determined to be invalid or unenforceable under law, such determination shall not affect the validity or enforcement of the remaining provisions of this Note. Notwithstanding any provision contained in this Note or in any Loan Document, the maximum amount of interest and other charges in the nature thereof contracted for or payable shall not exceed the maximum amount of interest and other charges allowable by law. If the same shall be determined to exceed such maximum amount, the same shall be deemed reduced to such maximum amount.

15. WAIVER OF JURY TRIAL AND DAMAGES. MAKER AND LENDER MUTUALLY HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE THE RIGHT TO TRIAL BY JURY IN ANY JURISDICTION, COURT AND PROCEEDING WITH RESPECT TO, IN CONNECTION WITH, OR ARISING OUT OF THIS NOTE, THE OTHER LOAN DOCUMENTS, THE OBLIGATIONS OR ANY INSTRUMENT OR DOCUMENT DELIVERED PURSUANT HERETO OR THERETO OR ANY COURSE OF CONDUCT, COURSE OF DEALINGS, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY, INCLUDING, WITHOUT LIMITATION, ANY COURSE OF CONDUCT, COURSE OF DEALINGS, STATEMENTS OR ACTIONS OF LENDER RELATING TO THE ADMINISTRATION OR ENFORCEMENT OF THIS NOTE AND THE OTHER LOAN DOCUMENTS. MAKER AND LENDER AGREE THAT NEITHER PARTY WILL SEEK TO CONSOLIDATE ANY SUCH ACTION WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED. EXCEPT AS PROHIBITED BY LAW, MAKER WAIVES ANY RIGHT WHICH IT MAY HAVE TO CLAIM OR RECOVER ANY SPECIAL, EXEMPLARY, PUNITIVE OR CONSEQUENTIAL OR OTHER TYPE OF DAMAGES OTHER THAN, OR IN ADDITION TO, ACTUAL DAMAGES. MAKER CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF LENDER HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT LENDER WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVERS. MAKER ACKNOWLEDGES THAT THE FOREGOING WAIVERS CONSTITUTE A MATERIAL INDUCEMENT FOR LENDER TO ENTER INTO THE LOAN DOCUMENTS AND ACCEPT THIS NOTE. BY EXECUTING AND DELIVERING THIS NOTE, MAKER CONFIRMS THAT THE FOREGOING WAIVERS ARE INFORMED AND FREELY MADE.

(Remainder of page intentionally left blank; signature page follows)

Executed as a sealed instrument as of the date first set forth above.

WITNESS:	AVANT IMMUNOTHERAPEUTICS, INC.
By: /s/ David T. Slatery	By: /s/ Una S. Ryan
(Signature)	(Signature)
David T. Slatery	Una S. Ryan
President and C.E.O.	President and Chief Executive Officer
(Printed Name and Title)	(Printed Name and Title)

Confidential Treatment Requested As To Certain Information Contained In This Exhibit

NON-EXCLUSIVE LICENSE AGREEMENT

This Non-Exclusive License Agreement ("Agreement") is made and entered into this 10th day of March, 2004 (the "Effective Date"), by and between AVANT Immunotherapeutics, Inc., a Delaware corporation with offices located at 119 Fourth Avenue, Needham, Massachusetts 02494 ("AVANT"), and AdProTech Ltd., a United Kingdom company with offices located at Chesterford Research Park, Little Chesterford, Saffron Walden, Essex UK, CB10 1 XL ("LICENSEE") (AVANT and LICENSEE sometimes hereinafter referred to as the "parties").

WITNESSETH

WHEREAS, AVANT owns or is the exclusive licensee of the PATENT RIGHTS (as defined below); and

WHEREAS, LICENSEE desires to obtain a non-exclusive license from AVANT in and under the PATENT RIGHTS; and

WHEREAS, AVANT is willing to grant such a license to LICENSEE upon the terms and conditions set forth below; and

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, the parties hereto agree as follows:

ARTICLE 1 - DEFINITIONS

For the purposes of this Agreement, the following words and phrases shall have the following meanings:

1.1 "FIELD OF USE" means the treatment of rheumatoid arthritis.

1.2 "LICENSED PROCESS" means any process or method, the performance of which by LICENSEE would, but for the license granted to LICENSEE in ARTICLE 2 of this Agreement, infringe a VALID CLAIM for a process or method contained within the PATENT RIGHTS.

1.3 "LICENSED PRODUCT" means *** Confidential Treatment Requested as to this Information***, the development, manufacture, use, sale, offer for sale, importation, or distribution of which by LICENSEE (or a COLLABORATOR (as defined in Section 2.2) would, but for the license granted to LICENSEE in ARTICLE 2 of this Agreement, infringe a VALID CLAIM of the PATENT RIGHTS. For the avoidance of doubt, there shall only be one Licensed Product at any point in time.

1.4 "NET SALES" shall mean the amount billed or invoiced by LICENSEE for the sale or provision of LICENSED PRODUCTS less:

(a) customary, standard and reasonable trade, cash and/or quantity discounts allowed;

(b) sales, tariff duties, use and other taxes (including Value Added Tax) directly imposed with reference to particular sales, and in the case of export orders, any import duties or similar applicable governmental levies;

(c) special packaging, transportation and insurance prepaid or allowed;

(d) amounts allowed or credited or customary, standard and reasonable retroactive price reductions on returns or for defects; and

(e) customary, standard and reasonable compulsory payments and rebates accrued, paid or deducted pursuant to agreements (including, but not limited to, managed care agreements) or governmental regulations

1.5 "PATENT RIGHTS" means (a) the patent applications and patents identified in Exhibit A attached hereto and any patents that issue on said applications and (b) any divisions, continuations, continuations-in-part, extensions, reissues or re-examinations of any of the patents identified in Exhibit A.

1.6 "TERM" has the meaning set forth in Section 9.1.

1.7 "TERRITORY" means the entire world.

1.8 "VALID CLAIM" means a claim of any issued and unexpired patent within the PATENT RIGHTS which has not lapsed, become abandoned or been held revoked, invalid, or unenforceable by a decision of a court or administrative or government authority or agency of competent jurisdiction from which no appeal can be or has been taken within the time allowed for such appeal, and which has not been admitted to be invalid or unenforceable through reissue, disclaimer or otherwise, or a pending claim of any pending application within the PATENT RIGHTS that has not been cancelled or finally rejected without possibility of appeal or further action before the patent authority reviewing such claim.

Additional terms may be defined throughout this Agreement.

ARTICLE 2 - LICENSE GRANT

2.1 License Grant.

(a) AVANT hereby grants to LICENSEE, and LICENSEE hereby accepts, subject to the terms and conditions hereof, a royalty-bearing, non-exclusive license (without the right to sublicense, except as provided in Section 2.2) in the TERRITORY in the FIELD OF USE and under the

PATENT RIGHTS to (a) research, develop, make, have made, use, sell, have sold, offer for sale, have offered for sale, import, and export LICENSED PRODUCTS; and (b) research, develop, use, and practice LICENSED PROCESSES only for the purposes of manufacturing or having manufactured the LICENSED PRODUCTS.

(b) AVANT hereby grants to LICENSEE, and LICENSEE hereby accepts, subject to the terms and conditions hereof, a royalty-free, non-exclusive license (without the right to sublicense) in the TERRITORY to conduct preclinical research and/or pre-Phase II clinical trials (or the equivalent of pre-Phase II clinical trials in the U.S. or other countries) involving the use of LICENSED PRODUCTS in indications outside of the FIELD OF USE. For purposes of this Agreement, "Phase II clinical trial" shall have the generally accepted meaning in the industry, including as set forth in the U.S. Government Code of Federal Regulation, Title 21, Volume 5, revised as of April 1, 2003, which states in pertinent part

"Phase II includes the controlled clinical studies conducted to evaluate the effectiveness of the drug for a particular indication in patients with the disease or condition under study and to determine the common short-term side effects and risks associated with the drug."

2.2 Sublicenses. LICENSEE shall have the right to grant sublicenses of the rights set forth in Section 2.1(a) above only to third parties with which LICENSEE has a written agreement under which LICENSEE and such third party have agreed to (a) collaborate on the research and development of LICENSED PRODUCTS and/or (b) market, promote and/or sell (whether solely by such third party or jointly by such third party and LICENSEE) LICENSED PRODUCTS (each such sublicensee, whether under sub-clause (a) or sub-clause (b) of this Section 2.2, a "COLLABORATOR" and each such written agreement, a "COLLABORATION AGREEMENT").

ARTICLE 3– LICENSEE OBLIGATIONS RELATING TO COMMERCIALIZATION

3.1 LICENSEE shall use its commercially reasonable efforts to bring the LICENSED PRODUCTS to market in the FIELD OF USE through an active and diligent program for exploitation of the PATENT RIGHTS and to continue active, diligent marketing efforts for one or more indications of the LICENSED PRODUCTS in the FIELD OF USE throughout the Term of this Agreement.

3.2 LICENSEE shall maintain complete and accurate records of LICENSED PRODUCTS that are made, used, or sold by LICENSEE under this Agreement. Not later than January 15th of each year following the Effective Date, LICENSEE shall furnish AVANT with a summary report on the progress of its efforts during the prior year to develop and commercialise LICENSED PRODUCTS including without limitation research and development efforts, efforts to obtain regulatory approval, marketing efforts (including LICENSED PRODUCTS made, used, or sold) and sales figures.

3.3 In the event that AVANT reasonably determines that LICENSEE has not fulfilled its obligations under this ARTICLE 3, AVANT shall furnish LICENSEE with written notice of such determination. Within sixty (60) days after receipt of such notice, LICENSEE shall either (i) fulfil the relevant obligation or (ii) negotiate with AVANT a mutually acceptable schedule of revised obligations; failing which AVANT shall have the right, immediately upon written notice to LICENSEE, to terminate this Agreement.

ARTICLE 4 - CONSIDERATION

4.1 License Fees. In partial consideration of the license granted by AVANT to LICENSEE in ARTICLE 2 of this Agreement, LICENSEE agrees to pay to AVANT (i) an "Initial License Fee" (as described in Exhibit B) within three (3) business days of the Effective Date and (ii) "Annual License Fees" (as described in Exhibit B) within thirty (30) days after each anniversary of the Effective Date.

4.2 Milestone Payments. In partial consideration of the license granted by AVANT to LICENSEE in ARTICLE 2 of this Agreement, LICENSEE agrees to pay to AVANT each of the milestone payments identified in Exhibit C attached hereto within thirty (30) days after the achievement of the relevant milestone.

4.3 Royalties.

(a) In partial consideration of the license granted by AVANT to LICENSEE in ARTICLE 2 of this Agreement, LICENSEE agrees to pay to AVANT a royalty equal to *** Confidential

Treatment Requested as to this Information*** of the NET SALES. Royalties will be calculated based upon the point at which each LICENSED PRODUCT is provided to an end customer of LICENSEE, such end customer not being an individual patient. Notwithstanding the foregoing to the contrary, in the case of the distribution of LICENSED PRODUCTS by a COLLABORATOR which is not an affiliate of LICENSEE, royalties attributable to sales by the applicable COLLABORATOR shall not exceed *** Confidential Treatment Requested as to this Information*** of the amounts received by LICENSEE under the applicable COLLABORATION AGREEMENT.

(b) The obligation of LICENSEE to pay royalties hereunder shall continue on a country-by-country basis only for as long as the researching, developing, making, using, selling, offering for sale, importing or exporting of LICENSED PRODUCTS would, but for the license granted to LICENSEE in Article 2 of this Agreement, infringe any VALID CLAIM within the PATENT RIGHTS applicable to the relevant country.

4.4 Payments in U.S. Currency. All payments due under this Agreement shall be paid in cash to AVANT and all payments shall be made in United States currency. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate reported in The Wall Street Journal on the last working day of the calendar quarter to which the payment relates.

4.5 Taxes. All payments due hereunder shall be paid in full without deduction of taxes or other fees which may be imposed by any government and which shall be paid by LICENSEE; provided, however, that any withholding tax required to be withheld by LICENSEE on royalty payments under the laws of any country in the TERRITORY on behalf of AVANT will be timely paid by LICENSEE to the appropriate governmental authority, and LICENSEE will furnish AVANT with proof of payment of such tax. Any such tax actually withheld may be deducted from royalty payments due to AVANT under this

Agreement. If at any time legal restrictions prevent the prompt remittance of part or all of any payments owed by LICENSEE to AVANT hereunder with respect to any country in the TERRITORY, payment shall be made through any lawful means or methods that may be available, and as LICENSEE shall reasonably determine is appropriate. The parties agree to co-operate in all commercially reasonably respects and in accordance with applicable law necessary to take advantage of such double taxation agreements as may be available.

4.6 Overdue Payments. Any payments to be made by LICENSEE hereunder that are not paid on or before the date such payments are due under this Agreement shall bear interest, to the extent permitted by law, at two percentage points above the Prime Rate of interest as reported in The Wall Street Journal on the date payment is due, with interest calculated based on the number of days that payment is delinquent.

ARTICLE 5 - REPORTS AND RECORDS

5.1 Records. LICENSEE shall keep full, timely, true and accurate books of account containing all particulars that may be necessary for the purpose of showing the amounts payable to AVANT hereunder and to enable the reports provided under Section 5.2 to be verified. Said books of account shall be kept at LICENSEE's principal place of business. Said books and the supporting data shall be open upon reasonable advance notice (but not less than five (5) business days notice and no more frequently than once per calendar year) for three (3) years following the end of the calendar year to which they pertain, to the inspection of AVANT's agents for the purpose of verifying LICENSEE's royalty statement. If any such audit determines an error in any royalty payment, LICENSEE shall pay to AVANT, within thirty (30) days of the discovery of the error, (a) all deficiencies in royalty payments, (b) interest on such deficiencies from the date such royalty payment was due until the date paid at the rate set

forth in Section 4.6 above, and (c) if such error is in excess of five percent (5%) of any royalty payment, the cost of the audit. In all other cases, the costs of the audit shall be paid for by AVANT.

5.2 Reports. After the first commercial sale of a LICENSED PRODUCT, LICENSEE, within forty-five (45) days after March 31, June 30, September 30 and December 31 of each year, shall deliver to AVANT a true and accurate report, giving such particulars of the business conducted by LICENSEE and its permitted sublicensees during the preceding three-month period under this Agreement as shall be pertinent to a royalty accounting hereunder. Without limiting the generality of the foregoing, these reports shall include at least the following:

(a) the number of LICENSED PRODUCTS manufactured and sold by LICENSEE and any COLLABORATOR;

(b) total billings and the amounts actually received for LICENSED PRODUCTS sold by LICENSEE and any COLLABORATOR;

(c) the deductions applicable as provided in Section 1.4; and

(d) the names and addresses of all parties making LICENSED PRODUCTS on behalf of LICENSEE.

5.3 Payment. With each such report submitted, LICENSEE shall pay to AVANT the royalties due and payable for such three-month period. If no royalties shall be due, LICENSEE shall so report.

ARTICLE 6 - PATENT PROSECUTION

The filing, prosecution, issuance, extension, and maintenance of all patents and applications in PATENT RIGHTS shall be the sole responsibility, but not the obligation, of AVANT. AVANT will make all decisions and take all actions with respect to further filing, prosecution, issuance, extension, and maintenance of PATENT RIGHTS without any obligation to consult or notify LICENSEE. LICENSEE agrees to cooperate fully with AVANT, as reasonably requested by AVANT and at AVANT's expense, in the preparation, filing, prosecution, and maintenance of the patent applications and patents included in the PATENT RIGHTS.

ARTICLE 7- PROSECUTION OF INFRINGERS AND DEFENSE OF PATENT RIGHTS

The parties agree to notify each other in writing of any actual or threatened infringement by a third party of PATENT RIGHTS or of any claim of invalidity, unenforceability, or non-infringement of the PATENT RIGHTS. AVANT shall have the sole responsibility, but not the obligation, to prosecute or defend such claims, as applicable. LICENSEE shall if requested provide reasonable assistance to AVANT, at AVANT's expense, in connection with the prosecution or defense of such claims.

ARTICLE 8 - INDEMNIFICATION

8.1 LICENSEE shall at all times during the term of this Agreement and thereafter, indemnify, defend and hold harmless AVANT and its directors, officers, employees and affiliates (collectively, the "Indemnified Parties") against all liabilities of any kind whatsoever, including legal expenses and reasonable attorneys' fees incurred or imposed upon any of the Indemnified Parties in connection with or as a consequence of any third party claims, suits, actions, demands or judgments arising out of the death

of or injury to any person or persons or out of any damage to property resulting from the development, production, manufacture, sale, use, performance, rendering, consumption or advertisement of the LICENSED PRODUCT(s) by or on behalf of LICENSEE or a sub-licensee thereof or arising from any obligation, act or omission performed or failed to be performed by LICENSEE under this Agreement, or from a breach of any representation or warranty of LICENSEE hereunder, excepting only claims that the PATENT RIGHTS or the exercise thereof infringe third party intellectual property or claims that result from any breach by AVANT of this Agreement or from the gross negligence or wilful misconduct of AVANT.

8.2 Any indemnification obligations set forth in this Agreement shall be subject to the following conditions: (i) the Indemnified Party shall notify LICENSEE in writing promptly upon learning of any claim or suit for which indemnification is sought; (ii) LICENSEE shall have control of the

defense or settlement, provided that the Indemnified Party shall have the right (but not the obligation) to participate in such defense or settlement with counsel at its selection and at its sole expense; and (iii) the Indemnified Party shall reasonably cooperate with the defense, at LICENSEE's expense.

ARTICLE 9 - TERMINATION

9.1 Term. The term of this Agreement ("TERM") shall commence on the Effective Date and continue until the expiration of the last VALID CLAIM within the PATENT RIGHTS to expire, unless sooner terminated as provided in this ARTICLE 9.

9.2 Termination for Breach. If either Party commits a material breach of a material term of this Agreement (including any failure to make any payment due under this Agreement), the other Party shall have the right to terminate this Agreement effective on thirty (30) days prior written notice to the party in breach, unless such breach is cured prior to the expiration of such thirty (30) day period.

9.3 Termination Upon Termination of Licensed Product Development If for any reason LICENSEE publicly announces the termination of or the intention to terminate its clinical or commercial development of LICENSED PRODUCT, or privately communicates the same to AVANT, AVANT shall have the right to terminate this Agreement on thirty (30) days written notice, unless LICENSEE resumes and notifies AVANT of its resumption of such clinical or commercial development of LICENSED PRODUCT within that period; provided, however, that, in the case of a termination of this Agreement under this Section 9.3, for as long as Licensee continues to pay AVANT royalties under Article 4 hereof, all provisions of this Agreement shall survive only with respect to each COLLABORATION AGREEMENT in effect as of the effective date of the termination of this Agreement. This Section 9.3 is in addition to, and not in lieu of, Section 9.5.

9.4 Phase Out Period. Notwithstanding anything herein to the contrary, in the event that this Agreement is terminated by AVANT pursuant to Section 9.2, LICENSEE shall retain a license to rights granted in ARTICLE 2 to the extent reasonably necessary to sell any LICENSED PRODUCTS existing or under production and to perform LICENSED PROCESSES for the sole purpose of manufacturing such LICENSED PRODUCTS that are in process, subject to the terms of this Agreement (including without limitation the obligation to pay royalties under ARTICLE 4), provided that LICENSEE shall complete and sell all such work-in-progress and inventory within six (6) months after the effective date of termination.

9.5 Survival. Nothing herein shall be construed to release either party from any obligation that accrued prior to expiration or any termination of this Agreement. Upon expiration or termination of this Agreement, all rights and obligations of the parties under this Agreement shall cease except for: (a)

LICENSEE's obligation to make any payment of any fees or royalties accrued on or prior to the date of expiration or termination (or, in the case of royalties owed with respect to LICENSED PRODUCTS sold under Section 9.4, royalties which accrue on or prior to the last day of the six (6) month period referenced in such section), and the provisions of the following Articles and Sections: 1, 5, 8, 9.4 (except that the Section 9.4 shall only survive a termination of this Agreement and not the expiration), 9.5, 10, 11, 12, 13, 14.1, 14.9, 14.15 and 14.16.

ARTICLE 10 - CONFIDENTIALITY AND NON-DISCLOSURE

10.1 Confidential Information. "Confidential Information" shall mean any technical, business, financial, customer or other information disclosed by one Party ("the Discloser") to the other party ("the Recipient") pursuant to this Agreement which is marked "Confidential" or "Proprietary," or which, under all of the given circumstances, ought reasonably to be treated as confidential information of the Discloser. Such information may be disclosed in oral, visual or written form (including magnetic, optical or other media). Except as expressly provided in Section 10.3 below, Confidential Information specifically includes without limitation business plans and business practices, the terms of this Agreement, scientific knowledge, research and development or know-how, processes, inventions, techniques, formulae, products and product plans, business operations, customer requirements, designs, sketches, photographs, drawings, specifications, reports, studies, findings, data, plans or other records, biological materials, software, margins, payment terms and sales forecasts, volumes and activities, designs, computer code, technical information, costs, pricing, financing, business opportunities, personnel, and information of the Discloser relating to the LICENSED PRODUCTS or LICENSED PROCESSES whether or not such information is marked, identified or confirmed.

10.2 Use of Confidential Information; Non-Disclosure. The Recipient acknowledges that it will have access to Confidential Information. During the term of this Agreement, and thereafter, the Recipient agrees that it will not (i) use any Confidential Information in any way, for its own account or the account of any third party, except for the exercise of its rights and performance of its obligations under this Agreement, or (ii) disclose any Confidential Information to any party, other than furnishing Confidential Information to its employees, agents, contractors, advisors, directors and affiliates who are required to have access to the Confidential Information in connection with the exercise of its rights and performance of its obligations under this Agreement. The Recipient agrees that it will not allow any unauthorized person access to Confidential Information, and that the Recipient will take all action reasonably necessary to protect the confidentiality of such Confidential Information, including implementing and enforcing procedures to minimize the possibility of unauthorized use or copying of Confidential Information. In the event that the Recipient is required by law to make any disclosure of any Confidential Information, by subpoena, judicial or administrative order or otherwise, the Recipient shall first give written notice of such requirement to the Discloser, and shall permit the Discloser to intervene in any relevant proceedings to protect its interests in the Confidential Information, and provide full cooperation and assistance to the Discloser in seeking to obtain such protection.

10.3 Exceptions. Information will not be deemed Confidential Information hereunder if such information: (a) is known to the Recipient prior to receipt from the Discloser directly or indirectly from a source other than one having an obligation of confidentiality to the Discloser; (b) becomes known (independently of disclosure by the Discloser) to the Recipient directly or indirectly from a source other than one having an obligation of confidentiality to the Discloser; (c) becomes publicly known or otherwise ceases to be secret or confidential, except through a breach of this Agreement by the Recipient; or (d) is independently developed by the Recipient.

10.4 Injunctive Relief. The Recipient acknowledges and agrees that any breach of the confidentiality obligations imposed by this ARTICLE 10 will constitute immediate and irreparable harm to the Discloser and/or its successors and assigns, which cannot adequately and fully be compensated by money damages and will warrant, in addition to all other rights and remedies afforded by law, injunctive relief, specific performance, and/or other equitable

relief. The Discloser's rights and remedies hereunder are cumulative and not exclusive. The Discloser shall also be entitled to receive from the Recipient the costs of enforcing this ARTICLE 10, including reasonable attorneys' fees and expenses of litigation.

10.5 Termination. Upon termination or expiration of this Agreement, or upon the Discloser's request at any time, the Recipient shall promptly return to the Discloser all copies of Confidential Information received from the Discloser, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts, or other documents which contain any Confidential Information in any form.

ARTICLE 11 - PAYMENTS, NOTICES, AND OTHER COMMUNICATIONS

Any payment, notice or other communication pursuant to this Agreement shall be in writing and sent by certified first class mail, postage prepaid, return receipt requested, or by nationally recognized overnight carrier addressed to the parties at the following addresses or such other addresses as such party furnishes to the other party in accordance with this paragraph. Such notices, payments, or other communications shall be effective upon confirmation of receipt.

In the case of AVANT:

AVANT Immunotherapeutics, Inc.
119 Fourth Avenue
Needham, Massachusetts 02494
Attention: President and CEO

With a copy (other than copies of payments) to:

Goodwin Procter LLP
Exchange Place
53 State Street
Boston, Massachusetts 02109
Attention: Ettore A. Santucci, P.C.

In the case of LICENSEE:

AdProTech Ltd.
Chesterford Research Park
Little Chesterford
Saffron Walden, Essex UK
CB10 1 XL
Attention: President and C.E.O.

ARTICLE 12- REPRESENTATIONS AND WARRANTIES; DISCLAIMER

12.1 AVANT's Representations and Warranties. AVANT represents and warrants that it owns or is the exclusive licensee of the PATENT RIGHTS (excepting the limited rights retained by the US Government as a result of partial federal funding of the subject matter of those rights), that it has the full legal right and power to grant the licenses granted hereunder, that this Agreement constitutes the binding legal obligation of AVANT, enforceable in accordance with its terms and that the execution and performance of this Agreement by AVANT will not violate, contravene or conflict with any other agreement to which AVANT is a party or by which it is bound or with any law, rule or regulation applicable to AVANT. Except as described herein the limited rights retained by the US government shall not in any way impact upon the rights granted to LICENSEE.

12.2 AVANT represents that to the best of AVANT's knowledge, the manufacture, sale, transfer, distribution and intended use of the LICENSED PRODUCTS or the practice of LICENSED PROCESSES in accordance with the rights granted hereunder does not and will not infringe the patent or other intellectual property rights of any third parties.

12.3 LICENSEE's Representations and Warranties. LICENSEE represents and warrants that it has full corporate power and authority to enter into this Agreement, that this Agreement constitutes the binding legal obligation of LICENSEE and that execution and performance of this Agreement by LICENSEE will not violate, contravene or conflict with any other agreement to which LICENSEE is a party or by which it is bound or with any law, rule or regulation applicable to LICENSEE.

12.4 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT AND TO THE EXTENT PERMISSIBLE BY LAW, NEITHER PARTY, ITS DIRECTORS, OFFICERS, EMPLOYEES, OR AFFILIATES MAKE ANY REPRESENTATIONS NOR EXTEND ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF PATENT RIGHTS, ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. EXCEPT AS EXPRESSLY SET FORTH IN SECTION 12.2 HEREIN, NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENATION MADE OR WARRANTY GIVEN BY AVANT THAT THE PRACTICE BY LICENSEE OF THE LICENSE GRANTED HEREUNDER SHALL NOT INFRINGE THE PATENT RIGHTS OF ANY THIRD PARTY.

ARTICLE 13 - LIMITATION OF LIABILITY

EXCEPT TO THE EXTENT THAT LIABILITY ARISES FROM: (I) A BREACH BY LICENSEE OF THE LICENSE PROVISIONS SET FORTH IN ARTICLE 2 HEREOF, (II) A BREACH BY EITHER PARTY OF ITS CONFIDENTIALITY OBLIGATIONS SET FORTH IN ARTICLE 10 HEREOF OR (III) A PARTY'S INDEMNITY OBLIGATIONS SPECIFIED IN ARTICLE 8 HEREOF, IN NO EVENT SHALL EITHER PARTY OR ITS DIRECTORS, OFFICERS, EMPLOYEES OR AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGE OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER IT SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF SUCH DAMAGES.

ARTICLE 14 - MISCELLANEOUS PROVISIONS

14.1 *** Confidential Treatment Requested as to this Information***

14.2 Negotiation Covenant. AVANT agrees to enter into good faith negotiations with LICENSEE, at LICENSEE's request, with respect to the terms of possible future non-exclusive licenses under the PATENT RIGHTS for LICENSEE to sell other products and/or in other fields of use. AVANT may withhold consent to such future request by LICENSEE if the requested license or any term or condition thereof is not commercially reasonable based upon the then-current market conditions. The parties agree and acknowledge, however, that the successful conclusion of such negotiations is not a condition precedent or condition subsequent to the execution, delivery or performance of this Agreement. Furthermore, until and unless AVANT and LICENSEE enter into any such definitive non-exclusive license, LICENSEE's rights shall be limited to the express rights, and subject to the express limitations and conditions, set forth in this Agreement.

14.3 Compliance with Laws. To the extent that any invention claimed in the PATENT RIGHTS has been partially funded by the United States Government, and only to the extent required by applicable laws and regulations, LICENSEE agrees that any LICENSED PRODUCTS used or sold in the United States will be manufactured substantially in the United States or its territories. Current law provides that if a domestic manufacturer is not commercially feasible under the circumstances, AVANT agrees to exercise commercially reasonable efforts to obtain a waiver of this requirement from the relevant federal agency on behalf of LICENSEE and, upon LICENSEE'S request, shall cooperate with LICENSEE in seeking such a waiver.

14.4 Prohibition on Liens. LICENSEE shall not create or incur or cause to be incurred or to exist any lien, encumbrance, pledge, charge, restriction or other security interest of any kind upon the PATENT RIGHTS.

14.5 Announcements. Neither party shall originate any publicity, news release or other public announcement, written or oral, relating to this Agreement or the existence of an arrangement between the parties ("Announcements"), without the prior written approval of the other party, which approval shall not be unreasonably withheld or delayed, except as otherwise required by law. The foregoing notwithstanding, AVANT and LICENSEE shall have the right to make such Announcements without the consent of the other party in any prospectus, offering memorandum, or other document or filing required by applicable securities laws or other applicable law or regulation, provided that such party shall have given the other party, as applicable, at least five (5) business days prior written notice of the proposed text for the purpose of giving the other party the opportunity to comment on such text.

14.6 No Implied Licenses. No implied licenses are granted pursuant to the terms of this Agreement. No licensed rights shall be created by implication or estoppel.

14.7 Relationship of the Parties. Nothing in this Agreement shall be construed to place the parties hereto in an agency, employment, franchise, joint venture, or partnership relationship. Neither party will have the authority to obligate or bind the other in any manner, and nothing herein contained shall give rise or is intended to give rise to any rights of any kind to any third parties. Neither party will represent to the contrary, either expressly, implicitly or otherwise.

14.8 Marking Requirement. To the extent commercially feasible, and consistent with prevailing business practices and applicable law, all LICENSED PRODUCTS sold pursuant to this Agreement will be marked with the number of each issued patent that applies to such LICENSED PRODUCTS.

14.9 Governing Law; Consent to Jurisdiction. ALL DISPUTES, CLAIMS OR CONTROVERSIES ARISING OUT OF THIS AGREEMENT, OR THE NEGOTIATION, VALIDITY OR PERFORMANCE OF THIS AGREEMENT, OR THE TRANSACTIONS CONTEMPLATED HEREBY SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS WITHOUT REGARD TO ITS RULES OF CONFLICT OF LAWS. Each of the parties hereto irrevocably and unconditionally consents to the exclusive jurisdiction of J.A.M.S./Endispute, Inc. to resolve all disputes, claims or controversies arising out of or relating to this Agreement or any other agreement executed and delivered pursuant to this Agreement or the negotiation, validity or performance hereof and thereof or the transactions contemplated hereby and thereby and further consents to the jurisdiction of the courts of Massachusetts for the purposes of enforcing the arbitration provisions of Section 14.10 of this Agreement. Each party further irrevocably waives any objection to proceeding before J.A.M.S./Endispute, Inc. has been brought in an inconvenient forum. Each of the parties hereto hereby consents to services of process by registered mail at the address to which notices are to be given. Each of the parties hereto agrees that its or his submission to jurisdiction and its or his consent to service of process by mail is made for the express benefit of the other parties hereto.

14.10 Arbitration. If any dispute arises between the parties relating to or arising out of this Agreement, appropriate representatives of the parties shall first use commercially reasonable efforts to negotiate in good faith a resolution of the dispute as expeditiously as is reasonably possible. If the dispute is not resolved within thirty (30) days after the date that a party referred the matter to the other party via written notice invoking the relief contained within this section, the dispute shall be referred to binding arbitration under the rules of the J.A.M.S. / Endispute with such arbitration to be held in Boston, Massachusetts. This Section 14.10 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

14.11 Complete Agreement. This Agreement, including the exhibits hereto, constitutes the entire agreement between the parties. It supersedes and replaces all prior or contemporaneous understandings or agreements, written or oral, regarding such subject matter, and prevails over any conflicting terms or conditions contained on printed forms submitted with purchase orders, sales acknowledgments or quotations. This Agreement may not be modified or waived, in whole or part, except in a writing signed by an officer or duly authorized representative of both parties.

14.12 Severability. In the event that any provision of this Agreement is found to be unenforceable, such provision will be reformed only to the extent necessary to make it enforceable, and the remainder will continue in effect, to the extent consistent with the intent of the parties as of the Effective Date.

14.13 No Waiver. The failure of either party to assert a right hereunder or to insist upon compliance with any term or condition of this Agreement shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

14.14 Assignment. This Agreement may not be assigned by LICENSEE without the prior written consent of AVANT, which consent shall be granted or denied in AVANT's sole discretion. Notwithstanding the foregoing to the contrary, LICENSEE may assign this Agreement without the written consent of AVANT to (a) a corporation or other business entity succeeding to all or substantially all the assets and business of LICENSEE by merger or purchase or (b) a corporation or other business entity acquiring directly or indirectly all of the issued and outstanding share capital of LICENSEE, provided in

both cases that such corporation or other business entity shall expressly assume all of LICENSEE's obligations under this Agreement by a writing delivered to AVANT. Any attempted assignment, delegation or transfer by LICENSEE in violation hereof shall be null and void. Subject to the foregoing, this Agreement shall be binding on the parties and their successors and assigns.

14.15 Construction. This Agreement has been prepared jointly and no rule of strict construction shall be applied against either party. In this Agreement, the singular shall include the plural and vice versa and the word "including" shall be deemed to be followed by the phrase "without limitation." The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

14.16 Counterparts. This Agreement may be executed in two or more counterparts, each of which will be deemed an original, but all of which will constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties have duly executed this Agreement on the Effective Date.

AVANT IMMUNOTHERAPEUTICS, INC.

By: /s/ Una S. Ryan, Ph.D.

Name: Una S. Ryan, Ph.D.

Title: President and C.E.O.

ADPROTECH LTD.

By: /s/ Kieran P. Murphy

Name: Kieran P. Murphy

Title: C.E.O.

EXHIBIT A
PATENT RIGHTS
(*Reference Section 1.5*)

*** Confidential Treatment Requested as to this Information***

EXHIBIT B
License Fees
(*Reference Section 4.1*)

License Fee	Amount
Initial License Fee	USD $1,000,000
Annual License Fee	*** Confidential Treatment Requested as to this Information***

EXHIBIT C

Milestone Payments

(Reference Section 4.2)

Milestone	Amount Due

*** Confidential Treatment Requested as to this Information***

Exhibit 31.1

CERTIFICATION

I, Una S. Ryan, certify that:

1. I have reviewed this report on Form 10-Q of AVANT Immunotherapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

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

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

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

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 30, 2004

By: /s/ Una S. Ryan
Name: Una S. Ryan, Ph.D.
Title: President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Avery W. Catlin, certify that:

1. I have reviewed this report on Form 10-Q of AVANT Immunotherapeutics, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

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

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

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

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 30, 2004

By: /s/ Avery W. Catlin
Name: Avery W. Catlin
Title: Senior Vice President and Chief Financial Officer

Exhibit 32.1

The undersigned officers of AVANT Immunotherapeutics, Inc. (the "Company") hereby certify to our knowledge that the Company's quarterly report on Form 10-Q to which this certification is attached (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 30, 2004

By: /s/ Una S. Ryan
Name: Una S. Ryan, Ph.D.
Title: President and Chief Executive Officer

Date: April 30, 2004

By: /s/ Avery W. Catlin
Name: Avery W. Catlin
Title: Senior Vice President and Chief Financial Officer