As filed with the Securities and Exchange Commission on August 7, 2000

REGISTRATION STATEMENT NO. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

AVANT IMMUNOTHERAPEUTICS, INC.

(Exact name of Registrant as specified in its charter)

DELAWARE	13-3191702
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

119 FOURTH AVENUE
NEEDHAM, MASSACHUSETTS 02494
(781) 433-0771
(Address, including zip code, and telephone number, including area code of Registrant's principal executive offices)

UNA S. RYAN, PH.D, PRESIDENT AND CHIEF EXECUTIVE OFFICER
AVANT IMMUNOTHERAPEUTICS, INC.
119 FOURTH AVENUE
NEEDHAM, MASSACHUSETTS 02494
(781) 433-0771

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

STUART M. CABLE, P.C.
ETTORE A. SANTUCCI, P.C.
GOODWIN, PROCTER & HOAR LLP
EXCHANGE PLACE
BOSTON, MASSACHUSETTS 02109-2881
(617) 570-1000

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. / /

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. /X/

If this form is used to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act of 1933, as amended, please check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering. / /

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act of 1933, as amended, check the following box and list the Securities Act Registration Statement number of the earlier effective Registration Statement for the same offering. / /

If delivery of the Prospectus is expected to be made pursuant to Rule 434, please check the following box. / /

CALCULATION OF REGISTRATION FEE

TITLE OF SHARES BEING REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE(1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE	AMOUNT OF REGISTRATION FEE
Common Stock, par value $.001.....	4,650,953	$6.39	$29,719,590	$7,846

(1) This estimate is made pursuant to Rule 457(c) under the Securities Act of 1933, as amended (the "Securities Act"), solely for the purposes of determining the registration fee and is based upon the market value of outstanding shares of common stock, $.001 par value per share, of AVANT Immunotherapeutics, Inc. on July 31, 2000, utilizing the average of the high and low sale prices reported on the Nasdaq National Market for that date.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

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SUBJECT TO COMPLETION. DATED AUGUST , 2000.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. WE MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

PROSPECTUS

4,650,953 SHARES OF COMMON STOCK

AVANT IMMUNOTHERAPEUTICS, INC.

The selling stockholders identified in this prospectus, and any of their pledgees, donees, transferees or other successors in interest, may offer to sell up to an aggregate of 4,650,953 shares of common stock of AVANT Immunotherapeutics, Inc. We are filing the Registration Statement of which this prospectus is a part at this time to fulfill a contractual obligation to do so, which we undertook at the time of the original issuance of these shares. We will not receive any of the proceeds from the sale of the common stock by the selling stockholders but, in fulfillment of our contractual obligations, we are bearing the expenses of registration.

Our common stock is listed on the Nasdaq Stock Market, Inc.'s National Market System under the symbol "AVAN."

SEE "RISK FACTORS" BEGINNING ON PAGE 2 FOR CERTAIN FACTORS YOU SHOULD CONSIDER BEFORE YOU INVEST IN OUR COMMON STOCK.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES, OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. IT IS ILLEGAL FOR ANY PERSON TO TELL YOU OTHERWISE.

The date of this prospectus is August 7, 2000.

TABLE OF CONTENTS

ABOUT AVANT

We are a biopharmaceutical Company that uses novel applications of immunology to prevent and treat diseases that arise internally, including autoimmune diseases, cardiovascular diseases, cancer and inflammation, and by external conditions, including infectious diseases and organ transplant rejection. Each of our products address large market opportunities for which current therapies are inadequate or non-existent.

We are developing our products using a broad set of technologies that work together to regulate the body's complement system, regulate T and B cell activity, and enable us and others to create and deliver vaccines that prevent and treat some diseases. We are using these technologies to develop both vaccines and immunotherapeutics that prevent or treat disease caused by infectious organisms and drugs and vaccines that modify undesirable activity of the body's own proteins or cells. All of our products are in various stages of research and development.

Our common stock has been quoted on the Nasdaq National Market under the symbol "AVAN" since August 24, 1998.

Prior to that, our common stock traded on the Nasdaq National Market under the symbol "TCS".

Our executive offices are located at 119 Fourth Avenue, Needham, Massachusetts 02494-2725 and our telephone number is (781) 433-0771. Additional information regarding our Company, including our audited financial statements and descriptions of our business, is contained in the documents incorporated by reference in this prospectus. See "Where You Can Find More Information" on page 7 and "Incorporation of Documents by Reference" on page 7.

THE OFFERING

This prospectus relates to up to 4,650,953 shares of our common stock that may be offered for sale by the selling stockholders. We originally issued these shares to the selling stockholders in a private placement on July 17, 2000. In connection with this private placement, we entered into a registration rights agreement with the selling stockholders. We are registering the common stock covered by this prospectus in order to fulfill our contractual obligations under the registration rights agreement. Registration of the common stock does not necessarily mean that all or any portion of the common stock will be offered for sale by the selling stockholders.

We have agreed to bear the expenses of the registration of the common stock under federal and state securities laws, but we will not receive any proceeds from the sale of any common stock offered under this prospectus.

RISK FACTORS

YOU SHOULD CONSIDER CAREFULLY THESE RISK FACTORS TOGETHER WITH ALL OF THE INFORMATION INCLUDED OR INCORPORATED BY REFERENCE IN THIS PROSPECTUS BEFORE YOU DECIDE TO PURCHASE SHARES OF OUR COMMON STOCK. THIS SECTION INCLUDES SOME FORWARD-LOOKING STATEMENTS.

OUR HISTORY OF LOSSES AND UNCERTAINTY OF FUTURE PROFITABILITY MAKE THE COMMON STOCK A HIGHLY SPECULATIVE INVESTMENT.

We have had no commercial revenues to date from sales of our products and cannot predict when we will. We have accumulated net operating losses since inception of approximately $38 million, as of June 30, 2000. We expect to spend substantial funds to continue research and product testing of the following products we have in the pre-clinical and clinical testing stages of development:

PRODUCT	USE	STAGE
TP10	organ transplantation	clinical phase I/II
TP10	pediatric cardiac surgery	clinical phase I/II
TP10	heart attacks	clinical phase I
TP20	stroke	pre-clinical
CETi-1 Vaccine	atherosclerosis	clinical phase I
Rotavirus Vaccine	rotavirus infection	clinical phase II
Cholera Vaccine	cholera infection	clinical phase II
Adjumer-Registered	Trademark- respiratory synctial virus	clinical phase II
Adjumer-Registered	Trademark- lyme disease	pre-clinical
Adjumer-Registered	Trademark- influenza	pre-clinical
Therapore-TM-	hepatitis	pre-clinical
Therapore-TM-	HIV	pre-clinical
Therapore-TM-	cancer	pre-clinical
TCAR	multiple sclerosis	clinical phase II

The product development and regulatory approval process can be generally described as follows. Pre-clinical tests are performed at an early stage of a product's development and provide information about a product's effectiveness in laboratory animals. Pre-clinical tests can last years. If a product passes its pre-clinical tests satisfactorily, we file an investigational new drug application for the product with the Food and Drug Administration, and if the FDA gives its approval we begin phase I clinical tests. Phase I testing generally lasts between six and 12 months. If phase I test results are satisfactory and the FDA gives its approval, we can begin phase II clinical tests. Phase II testing generally lasts between six and 18 months. If phase II test results are satisfactory and the FDA gives its approval, we can begin phase III pivotal studies. Phase III studies generally last between 12 and 36 months. Once clinical testing is completed and a new drug application is filed with the FDA, it may take more than a year to receive FDA approval.

If and when any of these products receive FDA approval, we will need to make substantial investments to establish sales, marketing, quality control, and regulatory compliance capabilities. We cannot predict how quickly our lead products will progress through the regulatory approval process. As a result, we may continue to lose money for several years. We will disclose the progress each product is making through pre-clinical and clinical testing, and the preparations we are making for products that are nearing approval for sale in our periodic reports under the Securities Exchange Act of 1934.

IF WE CANNOT SELL CAPITAL STOCK TO RAISE NECESSARY FUNDS, IT MAY FORCE US TO LIMIT OUR RESEARCH, DEVELOPMENT AND TESTING PROGRAMS

We will need to raise more capital from investors to advance our lead products through the clinical testing and to fund our operations until we receive final FDA approval and our products begin to generate revenues for us. However, based on our history of losses, we may have difficulty attracting sufficient investment interest. We may also try to obtain funding through research grants and agreements with commercial collaborators. This kind of funding is at the discretion of other organizations and companies who have limited funds and many companies compete with us for those funds. As a result, we may not receive any research grants or funds from collaborators. We will provide specific information about the sources and adequacy of funding for our active research and development programs in our periodic reports under the Securities Exchange Act of 1934.

IF SELLING STOCKHOLDERS CHOOSE TO SELL SHARES IN LARGE VOLUME, THE TRADING PRICE OF OUR COMMON STOCK COULD SUFFER

In July 2000, we sold 4,650,953 shares of our common stock in a private placement at $7.85 per share. This was the latest of several private placements of our common stock. Those shares, which are covered by this prospectus, plus among others, 5,459,375 shares we sold in a September 1999 private placement at $1.92 per share, 2,043,494 shares we sold in a March 1998 private placement at $1.90 per share, 1,433,750 shares we issued in June 1998 in settlement of a contract dispute with a landlord, and 3,124,008 shares that employees may purchase under stock options at prices ranging from $0.30 to $14.69 per share, can be resold in the public securities markets without restriction. These shares in total account for approximately 33% of our total common stock outstanding as of June 30, 2000, and approximately 30% of our common stock on a fully diluted basis. If large numbers of shares are sold over a short period of time, the price of our stock may decline rapidly or fluctuate widely.

IF OUR PRODUCTS DO NOT PASS REQUIRED TESTS FOR SAFETY AND EFFECTIVENESS, WE WILL NOT BE ABLE TO DERIVE COMMERCIAL REVENUE FROM THEM

For AVANT to succeed, we will need to derive commercial revenue from the products we have under development. The FDA has not approved any of our lead products for sale to date. Our lead drug, TP10, is undergoing phase II clinical testing for use in pediatric cardiac surgery. TP10 has also undergone phase I clinical testing for use in treating heart attacks and phase II clinical testing for organ transplant. Other products in our vaccine programs are in various stages of preclinical and clinical testing. Preclinical tests are performed at an early stage of a product's development and provide information about a product's effectiveness on laboratory animals. Preclinical tests can last years. If a product passes its preclinical tests satisfactorily, we file an investigational new drug application for the product with the FDA, and if the FDA gives its approval we begin phase I clinical tests. Phase I testing generally lasts between 6 and 12 months. If phase I test results are satisfactory and the FDA gives its approval, we can begin phase II clinical tests. Phase II testing generally lasts between six and 18 months. If phase II test results are satisfactory and the FDA gives its approval, we can begin phase III pivotal studies. Phase III studies generally last between 12 and 36 months. Once clinical testing is completed and a new drug application is filed with the FDA, it may take more than a year to receive FDA approval. We will disclose the progress of our ongoing tests and any FDA action on our products in our periodic reports under the Securities Exchange Act of 1934.

In all cases we must show that a pharmaceutical product is both safe and effective before the FDA, or drug approval agencies of other countries where we intend to sell the product, will approve it for sale. Our research and testing programs must comply with drug approval requirements both in the United States and in other countries, since we are developing our lead products with

companies, including Novartis Pharma AG, Smithkline Beecham and Aventis Pasteur, who intend to commercialize them both in the U.S. and abroad. A product may fail for safety or effectiveness at any stage of the testing process. The key risk we face is that none of our products under development will come through the testing process to final approval for sale, with the result that we cannot derive any commercial revenue from them after investing significant amounts of capital in multiple stages of pre-clinical and clinical testing.

PRODUCT TESTING IS CRITICAL TO THE SUCCESS OF OUR PRODUCTS BUT SUBJECT TO DELAY OR CANCELLATION IF WE HAVE DIFFICULTY ENROLLING PATIENTS

As our portfolio of potential products moves from pre-clinical testing to clinical testing, and then through progressively larger and more complex clinical trials, we will need to enroll an increasing number of patients with the appropriate characteristics. At times we have experienced difficulty enrolling patients and we may experience more difficulty as the scale of our clinical testing program increases. The factors that affect our ability to enroll patients are largely uncontrollable and include principally the following:

- the nature of the clinical test

- the size of the patient population

- the distance between patients and clinical test sites

- the eligibility criteria for the trial

As clinical tests currently in progress continue and new tests begin, we will disclose in our periodic reports under the Securities Exchange Act of 1934 our progress in enrolling sufficient patients to keep our various programs moving forward, including any specific difficulties we face from time to time and their expected consequences on the affected program. If we cannot enroll patients as needed, our costs may increase or it could force us to delay or terminate testing for a product.

WE DEPEND GREATLY ON THE INTELLECTUAL CAPABILITIES AND EXPERIENCE OF OUR KEY EXECUTIVES AND SCIENTISTS AND THE LOSS OF ANY OF THEM COULD AFFECT OUR ABILITY TO DEVELOP OUR PRODUCTS

The loss of Dr. Una S. Ryan, our president and chief executive officer, or other key members of our staff could harm us. We have an employment agreement with Dr. Ryan. We do not have any key-person insurance coverage. We also depend on our scientific collaborators and advisors, all of whom have outside commitments that may limit their availability to us. In addition, we believe that our future success will depend in large part upon our ability to attract and retain highly skilled scientific, managerial and marketing personnel, particularly as we expand our activities in clinical trials, the regulatory approval process and sales and manufacturing. We face significant competition for this type of personnel from other companies, research and academic institutions, government entities and other organizations. We cannot predict our success in hiring or retaining the personnel we require for continued growth.

WE RELY ON THIRD PARTIES TO PLAN, CONDUCT, MONITOR AND SUPPLY OUR CLINICAL TESTS, AND THEIR FAILURE TO PERFORM AS REQUIRED WOULD INTERFERE WITH OUR PRODUCT DEVELOPMENT

We rely on third parties, including Duke University Medical Center, The Cleveland Clinic, PPD International, Pharmaceuticals Research Associates, The Chicago Center for Clinical Research and SmithKline Beecham to conduct our clinical tests. If any one of those third parties fails to perform as we expect or if their work fails to meet regulatory standards, our testing could be delayed, cancelled or rendered ineffective. We also depend on third party suppliers and manufacturers, including Walter Reed Army Institute of Research, Marathon Biopharmaceuticals, Inc., Lonza

Biologies plc and Multiple Peptide Systems, to provide us with suitable quantities of materials necessary for clinical tests. If these materials are not available in suitable quantities of appropriate quality, in a timely manner, and at a feasible cost, our clinical tests will face delays.

WE DEPEND GREATLY ON THIRD PARTY COLLABORATORS TO LICENSE, DEVELOP AND COMMERCIALIZE SOME OF OUR PRODUCTS, AND THEY MAY NOT MEET OUR EXPECTATIONS

We have agreements with other companies, including Novartis Pharma AG, Aventis Pasteur and SmithKline Beecham, for the licensing, development and ultimate commercialization of most of our products. Some of those agreements give substantial responsibility over the products to the collaborator. Some collaborators may be unable or unwilling to devote sufficient resources to develop our products as their agreements require. They often face business risks similar to ours, and this could interfere with their efforts. Also, collaborators may choose to devote their resources to products that compete with ours. If a collaborator does not successfully develop any one of our products, we will need to find another collaborator to do so. Our search for a new collaborator will depend on our legal right to do so at the time and whether the product remains commercially viable.

WE MAY FACE DELAYS, DIFFICULTIES OR UNANTICIPATED COSTS IN ESTABLISHING SALES, DISTRIBUTION AND MANUFACTURING CAPABILITIES FOR OUR COMMERCIALLY READY PRODUCTS

We have chosen to retain, rather than license, all rights to some of our lead products, such as TP10 for pediatric cardiac surgery. If we proceed with this strategy, we will have full responsibility for commercialization of these products if and when they are approved for sale. We currently lack the marketing, sales and distribution capabilities that we will need to carry out this strategy. To market any of our products directly, we must develop a substantial marketing and sales force with technical expertise and a supporting distribution capability. We have little expertise in this area, and we may not succeed. We may find it necessary to enter into strategic partnerships on uncertain but potentially unfavorable terms to sell, market and distribute our products when they are approved for sale.

We do not currently plan to develop internal manufacturing capabilities to produce any of our products if they are approved for sale. To the extent that we choose to market and distribute products ourselves, this strategy will make us dependent on other companies to produce our products in adequate quantities, in compliance with regulatory requirements, and at a competitive cost. We may not find third parties capable of meeting those manufacturing needs.

OUR RELIANCE ON THIRD PARTIES REQUIRES US TO SHARE OUR TRADE SECRETS, AND THIS RELIANCE INCREASES THE POSSIBILITY THAT A COMPETITOR WILL DISCOVER THEM

Because we rely on third parties to develop our products, we must share trade secrets with them. We seek to protect our proprietary technology in part by confidentiality agreements and, if applicable, inventor's rights agreements with our collaborators, advisors, employees and consultants. Our competitors may discover our trade secrets either through breach of these agreements or through independent development. A competitor's discovery of our trade secrets would impair our competitive position. Moreover, we conduct a significant amount of research through academic advisors and collaborators who are prohibited from entering into confidentiality or inventor's rights agreements by their academic institutions.

WE LICENSE TECHNOLOGY FROM OTHER COMPANIES TO DEVELOP OUR PRODUCTS, AND THOSE COMPANIES COULD RESTRICT OUR USE OF IT

Companies that license to us technologies we use in our research and development programs may require us to achieve milestones or devote minimum amounts of resources to develop products using those technologies. They may also require us to make significant royalty and milestone payments, including a percentage of any sublicensing income, as well as payments to reimburse them for patent costs. The number and variety of our research and development programs require us to establish priorities and to allocate available resources among competing programs. From time to time we may choose to slow down or cease our efforts on particular products. If in doing so we fail to perform our obligations under a license fully, the licensor can terminate the licenses or permit our competitors to use the technology. Moreover, we may lose our right to market and sell any products based on the licensed technology.

WE HAVE MANY COMPETITORS IN OUR FIELD AND THEY MAY DEVELOP TECHNOLOGIES THAT MAKE OURS OBSOLETE

Biotechnology, pharmaceuticals and therapeutics are rapidly evolving fields in which scientific and technological developments are expected to continue at a rapid pace. We have many competitors in the U.S. and abroad, including Alexion Pharmaceuticals, Bayer, Merck, Pfizer, Immune Response and Wyeth-Lederle. Our success depends upon our ability to develop and maintain a competitive position in the product categories and technologies on which we focus. Many of our competitors have greater capabilities, experience and financial resources than we do. Competition is intense and is expected to increase as new products enter the market and new technologies become available. Our competitors may:

- develop technologies and products that are more effective than ours, making ours obsolete or otherwise noncompetitive

- obtain regulatory approval for products more rapidly or effectively than us

- obtain patent protection or other intellectual property rights that would block our ability to develop competitive products

WE RELY ON PATENTS, PATENT APPLICATIONS AND OTHER INTELLECTUAL PROPERTY PROTECTIONS TO PROTECT OUR TECHNOLOGY AND TRADE SECRETS; THEY ARE EXPENSIVE AND MAY NOT PROVIDE SUFFICIENT PROTECTION

Our success depends in part on our ability to obtain and maintain patent protection for technologies that we use. Biotechnology patents involve complex legal, scientific and factual questions and are highly uncertain. To date, there is no consistent policy regarding the breadth of claims allowed in biotechnology patents, particularly in regard to patents for technologies for human uses like those we use in our business. We cannot predict whether the patents we seek will issue. If they do issue, a competitor may challenge them and limit their scope. Moreover, our patents may not afford effective protection against competitors with similar technology. A successful challenge to any one of our patents could result in a third party's ability to use the technology covered by the patent. We also face the risk that others will infringe, avoid or circumvent our patents. Technology that we license from others is subject to similar risks, and this could harm our ability to use that technology. If we, or a company that licenses technology to us, were not the first creator of an invention that we use, our use of the underlying product or technology could face restrictions, including elimination.

If we must defend against suits brought against us or prosecute suits against others involving intellectual property rights, we will incur substantial costs. In addition to any potential liability for

significant monetary damages, a decision against us may require us to obtain licenses to patents or other intellectual property rights of others on potentially unfavorable terms. If those licenses from third parties are necessary but we cannot acquire them, we would attempt to design around the relevant technology. This would cause higher development costs and delays, and may ultimately prove impracticable.

OUR BUSINESS REQUIRES US TO USE HAZARDOUS MATERIALS, AND THIS INCREASES OUR EXPOSURE TO DANGEROUS AND COSTLY ACCIDENTS

Our research and development activities involve the use of hazardous chemicals, biological materials and radioactive compounds. Although we believe that our safety procedures for handling and disposing hazardous materials comply with the standards prescribed by applicable laws and regulations, we cannot completely eliminate the risk of accidental contamination or injury from these materials. In the event of an accident, an injured party will likely sue us for any resulting damages with potentially significant liability. The ongoing cost of complying with environmental laws and regulations is significant and may increase in the future. In addition, in connection with our merger with Virus Research Institute, Inc. in 1998, we assumed the real property lease at Virus Research Institute, Inc.'s former site. We understand that this property has a low level of oil-based and other hazardous material contamination. We believe that the risks posed by this contamination are low, but we cannot predict whether additional hazardous contamination exists at this site, or that changes in applicable law will not require us to clean up the current contamination of the property.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Mr. Sears, a Director of the Company since May 1999, purchased 50,000 shares of common stock of the Company at $1.92 per share, having an aggregate value of $96,000, in connection with the Company's private placement of stock in September 1999 and purchased 12,739 shares of common stock of the Company at $7.85 per share, having an aggregate value of $100,001, in connection with the Company's private placement of stock in July 2000.

WHERE YOU CAN FIND MORE INFORMATION

We must comply with the informational requirements of the Securities Exchange Act of 1934 and we are required to file reports and proxy statements and other information with the Securities and Exchange Commission. You may read and copy these reports, proxy statements and information at the public reference facilities maintained by the Securities and Exchange Commission at Judiciary Plaza, 450 Fifth Street, N.W., Room 1024, Washington, D.C. 20549, and at the Securities and Exchange Commission's Regional offices at 7 World Trade Center, 13th Floor, New York, New York 10048, and Citicorp Center, 500 W. Madison Street, Suite 1400, Chicago, Illinois 60661-2511. You may also obtain copies at the prescribed rates from the Public Reference Section of the Securities and Exchange Commission at its principal office in Washington, D.C. You may call the Securities and Exchange Commission at 1-800-SEC-0330 for further information about the public reference rooms. The Securities and Exchange Commission maintains a web site that contains reports, proxy and information statements and other information regarding registrants including AVANT, that file. You may access the Securities and Exchange Commission's web site at http://www.sec.gov.

INCORPORATION OF DOCUMENTS BY REFERENCE

The Securities and Exchange Commission allows us to incorporate by reference in this prospectus the information that we file with them. Incorporation by reference means that we can disclose important information to you by referring you to other documents that are legally considered to be part of this prospectus, and later information that we file with the Securities and

Exchange Commission will automatically update and supersede the information in this prospectus, any supplement and the documents listed below. We incorporate by reference the specific documents listed below and any future filings made with the Securities and Exchange Commission under Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until all of the shares are sold:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 1999 (as amended on Form10-K/A filed on July 25, 2000)

- our Current Report on Form 8-K filed on July 19, 2000

- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2000 and June 30, 2000

- the definitive Proxy Statement for our annual meeting of stockholders filed on March 28, 2000

- the description of our common stock contained in our Registration Statement on Form 8-A, filed on September 22, 1986, including all amendments and reports updating that description

We will furnish without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any documents incorporated by reference other than exhibits to those documents. Requests should be addressed to: 119 Fourth Avenue, Needham, Massachusetts 02494, Attention: Corporate Secretary (telephone number (781) 433-0771).

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone to provide you with different information. You should not assume that the information in this prospectus or the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

FORWARD-LOOKING STATEMENTS

Some statements incorporated by reference or made under the caption "Risk Factors" and elsewhere in this prospectus are "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934. When we use the words "anticipate," "assume," "believe," "estimate," "expect," "intend" and other similar expressions, they generally identify forward-looking statements. Forward-looking statements include, for example, statements relating to development activities, business strategy and prospects, future capital expenditures, sources and availability of capital, governmental regulations and their effect on us and competition.

You should exercise caution in interpreting and relying on forward-looking statements since they involve known and unknown risks, uncertainties and other factors which are, in some cases, beyond our control and could materially affect our actual results, performance or achievements. Some of the factors that could cause our actual results, performance or achievements to differ materially from those expressed or implied by forward-looking statements include, but are not limited to, the matters discussed under the caption "Risk Factors."

We caution you that, while forward looking statements reflect our good faith beliefs, they are not guarantees of future performance. In addition, we disclaim any obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

AVANT will not receive any proceeds from the sale of the shares by the selling stockholders.

REGISTRATION RIGHTS OF THE SELLING STOCKHOLDERS

The following is a summary of the material terms and provisions of the registration rights agreement relating to the registration of the common stock covered by this prospectus. It may not contain all the information that is important to you. You can access complete information by referring to the registration rights agreement.

Under the registration rights agreement, we must file by August 6, 2000 a Registration Statement covering the sale by the selling stockholders of the common stock that they purchased on July 17, 2000. We must use our best efforts to cause the Registration Statement to be declared effective by the Securities and Exchange Commission no later than November 14, 2000 and to keep the Registration Statement continuously effective until the earliest to occur of:

- the date on which the selling stockholders no longer hold any of the purchased common stock;

- such time as all the common stock held by the selling stockholders could be sold under Rule 144 of the Securities Act, during any 90 day period without restriction (including without limitation as to volume); or

- the date which is two years after the date the Registration Statement of which this prospectus forms a part was originally declared effective by the Securities and Exchange Commission.

Any common stock sold by the selling stockholders pursuant to this prospectus will no longer be entitled to the benefits of the registration rights provisions of the registration rights agreement.

The registration rights agreement requires that we bear all expenses of registering the common stock with the exception of any underwriting commission or brokerage fees and taxes of any kind and any legal, accounting and other expenses incurred by the selling stockholders. We agreed to indemnify the selling stockholders and any person who controls the selling stockholders against all losses, claims, damages, actions, liabilities, costs and expenses arising under the securities laws in connection with an untrue statement or omission in the Registration Statement or this prospectus, subject to limitations specified in the registration rights agreement. In addition, the selling stockholders agreed to indemnify us and our directors, officers and any person who controls our Company, subject to limitations specified in the registration rights agreement, against all losses, claims, damages, actions, liabilities, costs and expenses arising under the securities laws if they result from an untrue statement or omission contained in any written information furnished to us by the selling stockholders expressly for use in the Registration Statement or this prospectus or any amendments to the Registration Statement or any prospectus supplements.

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SELLING STOCKHOLDERS

The following table provides the name and number of shares of common stock owned by each selling stockholder as of July 17, 2000, the number of shares of common stock covered by this prospectus and the total number of shares of common stock which the selling stockholders will beneficially own upon completion of this offering. The shares offered by this prospectus may be offered from time to time by the selling stockholders named below, or by any of their pledgees, donees, transferees or other successors in interest. The selling stockholders will receive all of the proceeds from the sale of shares of common stock pursuant to this prospectus.

Because the selling stockholders may sell all, some or none of the shares, we have assumed that the selling stockholders will sell all of the shares in determining the number and percentage of shares of common stock that each selling stockholder will own upon completion of the offering to which this prospectus relates. The amounts set forth below are based upon information provided by the selling stockholders and are accurate to the best of our knowledge. It is possible, however, that the selling stockholders may acquire or dispose of additional shares of common stock from time to time after the date of this prospectus.

Selling Stockholder	Shares of Common Stock Beneficially Owned as of July 17, 2000	Shares of Common Stock Offered Hereby	Shares of Common Stock Owned After the Offering	
			Number(1)	Percent
Narragansett I, LP(2)	54,777	54,777	0	0
Narragansett Offshore, LTD(2)	72,611	72,611	0	0
BayStar Capital L.P.(3)	891,720	891,720	0	0
Pictet Global Sector Fund-Biotech(4)	1,146,497	1,146,497	0	0
Pictet Asset Management for Pictet Biotech Fund(5)	127,388	127,388	0	0
Dresdner RCM Biotechnology Fund(6)	509,554	509,554	0	0
Framlington Health Fund(7)	275,000	275,000	0	0
Munder Framlington Healthcare Fund(8)	325,000	325,000	0	0
JALAA Equities L.P.(9)	127,388	127,388	0	0
Halifax Fund, L.P.(10)	254,777	254,777	0	0
Clarion Capital Corporation(11)	63,694	63,694	0	0
Clarion Partners, L.P.(11)	43,312	43,312	0	0
Clarion Offshore Fund LTD(11)	20,382	20,382	0	0
Catalyst Partners, L.P.(12)	445,860	445,860	0	0
Catalyst International, LTD(12)	63,694	63,694	0	0
Peter Sears(13)	12,739	12,739	0	*
Finsbury Technology Trust (14)	127,388	127,388	0	0
Consulta Technology Fund (14)	66,404	66,404	0	0
Pulsar Technology Fund (14)	17,076	17,076	0	0
FGI Biotechnology Fund(14)	5,692	5,692	0	0
TOTAL	4,650,953	4,650,953	0	0

- ---

* denotes less than 1%

(1) Assumes that all shares hereby offered by the selling stockholders are sold.

(2) The selling stockholder's address is 375 Park Avenue, Suite 1404, New York, NY 10152.

(3) The selling stockholder's address is 50 California Street, 33rd Floor, San Francisco, CA 94111.

(4) The selling stockholder's address is 29, Blvd. Georges-Favon, Geneva CH-1211, Switzerland.

(5) The selling stockholder's address is Tower 42, Level 37, 25 Old Broad Street, London, England EC2N 1HQ.

(6) The selling stockholder's address is Four Embarcadero Center Suite 3000, San Francisco, CA 94111.

(7) The selling stockholder's address is 155 Bishopsgate, London, England EC ZM 3XJ.

(8) The selling stockholders' address is State Street Bank, 225 Franklin Street, Boston, MA 02101.

(9) The selling stockholder's address is 34 Sumner Road, Greenwich, CT 06831.

(10) The selling stockholder's address is 195 Maplewood Avenue, Maplewood, NJ 07040.

(11) The selling stockholders' address is 1801 East 9th Street, Suite 1120, Cleveland, OH 44114.

(12) The selling stockholder's address is 350 Park Avenue, 11th Floor, New York, NY 10022.

(13) The selling stockholder's address is 8 Paul Road, St. Davids, PA 19087. Mr. Sears has been a director of AVANT since May, 1999.

(14) The selling stockholder's address is 12 Appold Street, London, England EC2A 2AW.

PLAN OF DISTRIBUTION

We are registering 4,650,953 shares of common stock for resale by the selling stockholders, to satisfy our commitment to do so under a contract with them, but the registration of these shares does not necessarily mean that the selling stockholders will sell any or all of the shares registered. The selling stockholders, or their pledgees, donees, transferees or other successors in interest may sell the shares from time to time at fixed prices that may be changed, at market prices prevailing at the time of sale, at prices related to prevailing market prices or at prices otherwise negotiated. The selling stockholders may sell shares by one or more of the following methods:

- block transactions in which a broker-dealer will attempt to sell all or a portion of such shares as agent but may position and resell all or a portion of the block as principal to facilitate the transaction

- purchases by any such broker-dealer as principal and resale by such broker-dealer for its own account pursuant to any supplement to this prospectus

- sales on a stock exchange or automated interdealer quotation system on which our shares are listed on in the over-the-counter market

- ordinary brokerage transactions and transactions in which any such broker-dealer solicits purchasers

- privately negotiated transactions

- short sales

- one or more underwritten offerings on a firm commitment or best efforts basis

- through the writing of options on the shares, whether or not the options are listed on an options exchange

- through the distribution of the shares by any selling stockholder to its partners, members or stockholders

The selling stockholders may also transfer the shares by gift. We do not know of any specific arrangements by the selling stockholders for the sale of any of the shares at the present time.

The selling stockholders may engage brokers and dealers, and any brokers or dealers may arrange for other brokers or dealers to participate in effecting sales of the shares. These brokers, dealers or underwriters may act as principals, or as an agent of a selling stockholder. Broker-dealers may agree with a selling stockholder to sell a specified number of the shares at a stipulated price per security. If the broker-dealer is unable to sell shares acting as agent for a selling

stockholder, it may purchase as principal any unsold shares at the stipulated price. Broker-dealers who acquire shares as principals may thereafter resell the shares from time to time in transactions in any stock exchange or automated interdealer quotation system on which the shares are then listed, at prices and on terms then prevailing at the time of sale, at prices related to the then-current market price or in negotiated transactions. Broker-dealers may also use block transactions and sales to and through broker-dealers as described above.

From time to time, the selling stockholders may pledge, hypothecate or grant a security interest in some or all of the shares owned by them. The pledgees, secured parties or persons to whom the shares have been hypothecated will, upon foreclosure in the event of default, be deemed to be selling stockholders. The number of a selling stockholder's shares offered under this prospectus will decrease as and when it takes such actions. The plan of distribution for that selling stockholder's shares will otherwise remain unchanged. In addition, a selling stockholder may, from time to time, sell the shares short, and, in those instances, this prospectus may be delivered in connection with the short sales and the shares offered under this prospectus may be used to cover short sales.

To the extent required under the Securities Act, the aggregate amount of selling stockholders' shares being offered and the terms of the offering, the names of any agents, brokers, dealers or underwriters and any applicable commission with respect to a particular offer will be disclosed in a prospectus supplement. Any underwriters, dealers, brokers or agents participating in the distribution of the shares may receive compensation in the form of underwriting discounts, concessions, commissions or fees from a selling stockholder and/or purchasers of shares for whom they may act (which compensation as to a particular broker-dealer might be in excess of customary commissions).

The selling stockholders and any underwriters, brokers, dealers or agents that participate in the distribution of the shares may be deemed to be underwriters within the meaning of the Securities Act, and any discounts, concessions, commissions or fees received by them and any profit on the resale of the shares sold by them may be deemed to be underwriting discounts and commissions.

A selling stockholder may enter into hedging transactions with broker-dealers and the broker-dealers may engage in short sales of the shares in the course of hedging the positions they assume with that selling stockholder, which may include distributions of the shares by those broker-dealers. A selling stockholder may enter into option or other transactions with broker-dealers that involve the delivery of shares to the broker-dealers, who may then recall or otherwise transfer those shares. A selling stockholder may also loan or pledge shares to a broker-dealer and the broker-dealer may sell those shares.

The selling stockholders and other persons participating in the sale or distribution of the shares will be subject to applicable provisions of the Securities Exchange Act of 1934 and the rules and regulations of the Securities and Exchange Commission, including Regulation M. This regulation may limit the timing of purchases and sales of any of the shares by the selling stockholders and any other person. The anti-manipulation rules under the Securities Exchange Act of 1934 may apply to sales of securities in the market and to the activities of the selling stockholders and their affiliates. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of the shares to engage in market-making activities with respect to the particular shares being distributed for a period of up to five business days before the distribution. These restrictions may affect the marketability of the shares and the ability of any person or entity to engage in market-making activities with respect to the shares.

We have agreed to indemnify the selling stockholders and any brokers, dealers and agents who may be deemed to be underwriters against liabilities, including liabilities under the Securities Act arising from disclosures we make or fail to make. The selling stockholders have agreed to indemnify us against liabilities, under the Securities Act arising from information supplied to us by

them. We will pay all expenses relating to the offering and sale of shares by the selling stockholders, other than the commissions, discounts and fees of underwriters, broker-dealers or the selling stockholders' separate counsel or advisors.

LEGAL MATTERS

The validity of the common stock being offered by the selling shareholders will be passed upon for us by Goodwin, Procter & Hoar LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 1999, as amended by our Form 10-K/A filed on July 25, 2000, have been so incorporated in reliance upon the report of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROSPECTUS, INCORPORATED HEREIN BY REFERENCE OR CONTAINED IN A PROSPECTUS SUPPLEMENT. NEITHER WE NOR THE SELLING STOCKHOLDERS HAVE AUTHORIZED ANYONE ELSE TO PROVIDE YOU WITH DIFFERENT OR ADDITIONAL INFORMATION. THE SELLING STOCKHOLDERS ARE NOT MAKING AN OFFER OF THESE SECURITIES IN ANY STATE WHERE THE OFFER IS NOT PERMITTED. YOU SHOULD NOT ASSUME THAT THE INFORMATION IN THIS PROSPECTUS, OR INCORPORATED HEREIN BY REFERENCE, OR IN ANY PROSPECTUS SUPPLEMENT IS ACCURATE AS OF ANY DATE OTHER THAN THE DATE ON THE FRONT OF THOSE DOCUMENTS.

4,650,953 SHARES

AVANT IMMUNOTHERAPEUTICS, INC.

COMMON STOCK

PROSPECTUS

AUGUST 7, 2000

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION(1).

The following are the estimated expenses of the distribution of the shares registered hereunder on Form S-3:

Registration Fee--Securities and Exchange Commission.....	$ 7,846
Accountants Fees and Expenses.....	$ 3,000
Blue Sky Fees and Expenses.....	$ 1,000
Legal Fees and Expenses.....	$25,000
Printing Expenses.....	$ 1,000
Transfer Agent Expenses.....	$ 2,500
Miscellaneous.....	$
Nasdaq Listing Fee.....	$
Total.....	$

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(1) The amounts set forth above, except for the SEC Registration Fee, are estimated.

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Company is a Delaware corporation. Reference is made to Section 145 of the Delaware General Corporation Law (the "DGCL"), which enables a corporation to eliminate or limit the personal liability of a director for monetary damages for violations of the director's fiduciary duty, except for liability (i) for any breach of the director's duty of loyalty to the Company, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under to Section 145 or (iv) for any transaction from which a director derived an improper personal benefit. The Company has adopted such provisions in the Company's Amended and Restated Bylaws (the "Bylaws").

The DGCL permits, but does not require, a corporation to indemnify its directors, officers, employees or agents and expressly provides that the indemnification provided for under the DGCL shall not be deemed exclusive of any indemnification right under any bylaw, vote of stockholders or disinterested directors, or otherwise. The DGCL permits indemnification against expenses and certain other liabilities arising out of legal actions brought or threatened against such persons for their conduct on behalf of the corporation, provided that each such person acted in good faith and in a manner that he or she reasonably believed was in or not opposed to the corporation's best interests and in the case of a criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The DGCL does not allow indemnification of directors in the case of an action by or in the right of the corporation (including stockholder derivative suits) unless the directors successfully defend the action or indemnification is ordered by the court. The Bylaws of the company provide for indemnification to the fullest extent authorized by the DGCL and, therefore, these statutory indemnification rights are available to the directors, officers, employees and agents of the Companies. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors and officers of the company pursuant to the foregoing provision or otherwise, the company has been advised that, in the opinion of the Commission, such indemnification is against public policy as expressed in the Securities Exchange Act of 1934, as amended, and is therefore, unenforceable.

The Company currently carries a directors' and officers' liability insurance policy which provides for payment of expenses of the Company's directors and officers in connection with threatened,

pending or completed actions, suits or proceedings against them in their capacities as directors and officers, in accordance with the Bylaws and the DGCL.

ITEM 16. EXHIBITS.

EXHIBIT NO.	DESCRIPTION
5.1	Opinion of Goodwin, Procter & Hoar LLP
23.1	Consent of PricewaterhouseCoopers LLP
23.2	Consent of Goodwin, Procter & Hoar LLP (included in Exhibit 5.1)
24.1	Powers of Attorney (included on the signature page hereto)
99.3	Securities Purchase Agreement dated as of July 13, 2000, between the Company and the Selling Stockholders
99.4	Registration Rights Agreement dated as of July 13, 2000, between the Company and the Selling Stockholders

ITEM 17. UNDERTAKINGS.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

PROVIDED, HOWEVER, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the Registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities

Exchange Act of 1934, as amended) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the Registrant pursuant to the foregoing provisions, the Registrant has been informed that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Needham, Commonwealth of Massachusetts, on August 7, 2000.

AVANT IMMUNOTHERAPEUTICS, INC.

BY: /S/ UNA S. RYAN, PH.D.

Una S. Ryan, Ph.D.
President, Chief Executive Officer and Director

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated, each of whom also constitutes and appoints Una S. Ryan and Avery W. Catlin, and each of them singly, his true and lawful attorney-in-fact and agent, for him, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement, and to file the same and all exhibits thereto and any other documents in connection therewith with the Securities and Exchange Commission, granting unto each attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each attorney-in-fact and agent or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

SIGNATURE	TITLE	DATE
/s/ UNA S. RYAN PH.D Una S. Ryan Ph.D	President, Chief Executive Officer and Director (Principal Executive Officer)	August 7, 2000
/s/ J. BARRIE WARD, PH.D. J. Barrie Ward, Ph.D.	Chairman	August 7, 2000
/s/ AVERY W. CATLIN Avery W. Catlin	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	August 7, 2000
/s/ HARRY H. PENNER, JR. Harry H. Penner, Jr.	Director	August 7, 2000
/s/ PETER A. SEARS, ESQ. Peter A. Sears, Esq.	Director	August 7, 2000
/s/ THOMAS R. OSTERMUELLER Thomas R. Ostermueller	Director	August 7, 2000

SIGNATURE	TITLE	DATE
/s/ JOHN L. LITTLECHILD John L. Littlechild	Director	August 7, 2000
/s/ FREDERICK W. KYLE Frederick W. Kyle	Director	August 7, 2000

EXHIBIT INDEX

Exhibit No.	Description
5.1	Opinion of Goodwin, Procter & Hoar LLP
23.1	Consent of PricewaterhouseCoopers LLP
23.2	Consent of Goodwin, Procter & Hoar LLP (included in Exhibit 5.1)
24.1	Powers of Attorney (included on the signature page hereto)
99.3	Securities Purchase Agreement dated as of July 13, 2000, between the Company and the Selling Stockholders
99.4	Registration Rights Agreement dated as of July 13, 2000, between the Company and the Selling Stockholders

GOODWIN, PROCTER & HOAR LLP
COUNSELLORS AT LAW
EXCHANGE PLACE
BOSTON, MASSACHUSETTS 02109-2991

August 4, 2000

AVANT Immunotherapeutics, Inc.
119 Fourth Avenue
Needham, Massachusetts 02494
Attn: Dr. Una S. Ryan

Re: Legality of Securities to be Registered
UNDER REGISTRATION STATEMENT ON FORM S-3

Ladies and Gentlemen:

This opinion is delivered in our capacity as counsel to AVANT Immunotherapeutics, Inc., a Delaware corporation (the "Company"), in connection with the registration, pursuant to the Securities Act of 1933 (the "Securities Act"), of 4,650,953 shares (the "Shares") of common stock, par value $.001 per share, of the Company.

In connection with rendering this opinion, we have examined the Certificate of Incorporation and the Bylaws of the Company, each as amended to date; such records of the corporate proceedings of the Company as we have deemed material; a registration statement on Form S-3 under the Securities Act relating to the Shares and the prospectus contained therein; and such other certificates, receipts, records and documents as we considered necessary for the purposes of this opinion.

We are attorneys admitted to practice in The Commonwealth of Massachusetts. We express no opinion concerning the laws of any jurisdiction other than the laws of the United States of America and The Commonwealth of Massachusetts and the Delaware General Corporation Law.

Based upon the foregoing, we are of the opinion that the Shares are duly authorized, legally issued, fully paid and nonassessable by the Company under the Delaware General Corporation Law.

The foregoing assumes that all requisite steps will be taken to comply with the requirements of the Securities Act and applicable requirements of state laws regulating the offer and sale of securities.

We hereby consent to being named as counsel to the Company in the Registration Statement, to the references therein to our firm under the caption "Legal Matters" and to the inclusion of this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ Goodwin, Procter & Hoar LLP

GOODWIN, PROCTER & HOAR LLP

EXHIBIT 23.1

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated February 14, 2000 relating to the financial statements which appears in AVANT Immunotherapeutics. Inc.'s Annual Report on Form 10-K/A for the year ended December 31, 1999. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
- ------------------------------
PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Boston, Massachusetts
August 4, 2000

EXHIBIT 99.3

SECURITIES PURCHASE AGREEMENT

DATED AS OF JULY 13, 2000

BY AND BETWEEN

AVANT IMMUNOTHERAPEUTICS, INC.

AND

THE PURCHASERS NAMED ON THE SIGNATURE PAGES ATTACHED HERETO

TABLE OF CONTENTS

THIS SECURITIES PURCHASE AGREEMENT, dated as of July 13, 2000 (this "Agreement"), by and between AVANT IMMUNOTHERAPEUTICS, INC., a Delaware corporation, with headquarters located at 119 Fourth Avenue, Needham, MA 02494 (the "Company"), and each of the purchasers set forth on the signature pages attached hereto (each a "Purchaser," and collectively, the "Purchasers").

W I T N E S S E T H:

WHEREAS,

(A) The Purchasers desire to purchase, and the Company desires to sell, upon the terms and conditions set forth in this Agreement, shares (the "Shares") of common stock, $.001 par value per share, of the Company (the "Common Stock"), that will result in the receipt by the Company of aggregate gross proceeds of approximately US$34.8 million or more; and

(B) Each Purchaser wishes to purchase, upon the terms and conditions stated in this Agreement, the number of Shares set forth opposite its name on Exhibit A attached hereto.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. DEFINITIONS

1.1 The following terms used in this Agreement shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

"Aggregate Purchase Price" means the aggregate price paid to the Company for the Shares by the Purchasers.

"Business Day" means any day other than a Saturday, Sunday or a day on which commercial banks in The City of Boston are authorized or required by law or executive order to remain closed.

"Closing Date" means 4:00 p.m., Boston time, on July __, 2000, or such other time and date as the parties hereto may agree on.

"Code" means the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder and published interpretations thereof.

"Disclosure Schedule" means the Disclosure Schedule prepared by the Company and furnished to the Purchasers prior to the date of execution and delivery of this Agreement by the Purchasers. Items disclosed in response to a particular Section of this Agreement in the Disclosure Schedule will be deemed disclosed for purposes of other Sections as applicable without cross-references.

"Material Adverse Effect" means any material adverse effect on the business, operations, assets, condition (financial or other) or prospects of the Company and its Subsidiaries taken as a whole.

"Nasdaq" means the Nasdaq Stock Market.

"NASD" means the National Association of Securities Dealers, Inc.

"1933 Act" means the Securities Act of 1933, as amended.

"1934 Act" means the Securities Exchange Act of 1934, as amended.

"PaineWebber" means PaineWebber Incorporated.

"Permitted Transferee" means any Person who is (a) an "accredited investor" as defined in Regulation D, or (b) a purchaser who is not a U.S. person within the meaning of Regulation S, or (c) any other transferee of the Shares as permitted under the securities laws of the United States.

"Person" means any natural person, corporation, partnership, limited liability company, trust or unincorporated organization, incorporated government, governmental agency or political subdivision.

"Polmerix" means Polmerix, Inc., a Delaware corporation.

"Questionnaire" means the Purchaser Questionnaire in the form of Annex A hereto completed by each Purchaser.

"Registration Rights Agreement," means that certain Registration Rights Agreement dated as of the date hereof between the Company and each of the Purchasers, as the same may be amended or modified from time to time.

"Regulation D" means Regulation D under the 1933 Act.

"Regulation S" means Regulation S under the 1933 Act.

"Rule 144" means Rule 144 under the 1933 Act.

"SEC" means the United States Securities and Exchange Commission.

"SEC Reports" means all periodic and other reports filed by the Company with the SEC pursuant to the 1933 Act and 1934 Act subsequent to January 1, 2000 and prior to the date hereof, in each case as filed with the SEC and including the information and documents (other than exhibits) incorporated therein by reference.

"Subsidiary" has the meaning set forth in Section 4.1.

2. PURCHASE AND SALE; PURCHASE PRICE

2.1 SALE AND PURCHASE OF THE SHARES. Subject to all of the terms and conditions hereof and in reliance on the representations and warranties set forth or referred to herein, at the Closing the Company agrees to sell to each Purchaser and each Purchaser hereby agrees, severally and not jointly, to purchase, that number of Shares of Common Stock set forth opposite the name of such Purchaser on Exhibit A attached hereto, at the respective purchase price (the "Purchase Price") set forth opposite the name of such Purchaser on Exhibit A attached hereto. The price per share to be sold under this Agreement will be US$7.85.

2.2 CLOSING. The closing of the purchase and sale of the Shares (the "Closing") will take place at the offices of Goodwin, Procter & Hoar LLP, Boston, Massachusetts on the Closing Date or at such other place as the parties hereto may agree upon. The Closing shall occur when (a) the Company shall have delivered to the Purchasers share certificates representing the Shares to be issued to the Purchasers; and (b) each of the Purchasers has delivered an amount equal to the Purchase Price set forth opposite the name of such Purchaser on the signature pages attached hereto to the Company.

3. REPRESENTATIONS, WARRANTIES, COVENANTS, ETC. OF THE PURCHASERS

Each of the Purchasers severally, and not jointly, represents and warrants to, and covenants and agrees with, the Company as follows:

3.1 PURCHASER STATUS. The Purchaser is either (a) an "accredited investor," as that term is defined in Rule 501(a) of Regulation D or (b) a purchaser who is not a U.S person within the meaning of Regulation S.

3.2 INVESTOR SUITABILITY. The Purchaser is purchasing the Shares for its own account, or for one or more investor accounts for which it is acting as a fiduciary or agent, in each case for investment, and not with a view to, or for offer or sale in connection with, any distribution thereof in violation of the 1933 Act. Each Purchaser has such knowledge and experience in financial and business matters as is necessary to evaluate the risks and merits of an investment in the Shares. Each Purchaser further acknowledges that (i) its commitment to purchase the Shares is reasonable in relation to its net worth; (ii) it has the requisite knowledge with regard to all of the considerations involved in purchasing the Shares; (iii) it is aware that the right to transfer the Shares is restricted as set forth herein; (iv) it has the financial ability to bear the economic risk of the investment in the Company (including the complete loss of the entire investment), adequate means of providing for its current and anticipated needs and personal contingencies, if any, and no need for liquidity with respect to its investment in the Company; and (v) its overall commitment to investments that are not readily marketable is not disproportionate to its net worth and its purchasing of the Shares will not cause such overall commitment to become excessive.

3.3 RESALE RESTRICTIONS.

(a) Each of the Purchasers understands and acknowledges that (i) the sale or resale of the Shares has not been and, except as otherwise provided in the Registration Rights Agreement, is not required to be, registered under the 1933 Act or any applicable state securities laws, and the Shares may not be transferred unless (a) the Shares are sold pursuant to an effective registration statement under the 1933 Act, (b) the Purchaser shall have delivered to the Company an opinion of counsel (which opinion shall be in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that the Shares to be sold or transferred may be sold or transferred pursuant to an exemption from such registration, (c) the Shares are sold or transferred to an "affiliate" (as defined in Rule 144 (or a successor rule)) of the Purchaser who agrees to sell or otherwise transfer the Shares only in accordance with this Section 3.3 and who is an accredited investor or (d) the Shares are sold pursuant to Rule 144 or in reliance on Regulation S; (ii) any sale of such Shares made in reliance on Rule 144 or Regulation S may be made only in accordance with the terms of said Rule or Regulation and, further, if said Rule or Regulation is not applicable, any resale of such Shares under circumstances in which the seller (or the person through whom the sale is made) may be deemed to be an underwriter (as that term is defined in the 1933 Act) may require compliance with some other exemption under the 1933 Act or the rules and regulations of the SEC thereunder; and (iii) neither the Company nor any other person is under any obligation to register such Shares under the 1933 Act or any state securities laws or to comply with the terms and conditions of any exemption thereunder (in each case, other than as provided herein or in the Registration Rights Agreement). Notwithstanding the foregoing or anything else contained herein to the contrary, the Shares may be pledged as collateral in connection with a bona fide margin account or other lending arrangement.

(b) Each of the Purchasers understands and acknowledges that the Shares are deemed to be "restricted securities" as defined in Rule 144 and will continue to be deemed to be "restricted securities".

(c) Each of the Purchasers understands and acknowledges that until such time as the Shares have been sold pursuant to an effective registration statement under the 1933 Act or may otherwise be sold pursuant to Rule 144 without any restriction as to the number of securities as of a particular date that can then be immediately sold, the Shares may bear a restrictive legend in substantially the following form (and a stop-transfer order may be placed against transfer of the certificates for such Shares):

> "The Shares represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "1933 Act"). The Shares may not be resold, transferred or assigned except in accordance with the provisions of Regulation S under the 1933 Act, pursuant to the registration requirements of the 1933 Act or pursuant to an available exemption from registration."

The legend set forth above shall promptly be removed and the Company shall promptly issue a certificate without such legend to the holder of any Shares upon which it is stamped, if, unless otherwise required by applicable state securities laws, (a) such Shares are sold under an effective registration statement filed under the 1933 Act or otherwise may be sold pursuant to Rule 144 without any restriction as to the number of securities as of a particular date that can then be immediately sold or (b) such holder provides the Company with an opinion of counsel, in form, substance and scope customary for opinions of counsel in comparable transactions, to the effect that a public sale or transfer of such Shares may be made without registration under the 1933 Act and such sale or transfer is effected. The Purchaser agrees to sell all Shares, including those represented by a certificate from which the legend has been removed, in compliance with applicable prospectus delivery requirements, if any.

3.4 ABSENCE OF APPROVALS. The Purchaser understands that no U.S. federal or state agency or any other government or governmental agency has passed on or made any recommendation or endorsement of the Shares.

3.5 INFORMATION PROVIDED. The Purchaser and its advisors, if any, have requested, received and considered all information relating to the business, properties, operations, condition (financial or other), results of operations or prospects of the Company and information relating to the sale of the Shares deemed relevant by them; the Purchaser and its advisors have been afforded the opportunity to ask questions of the Company concerning the terms of the offering of the Shares and the business, properties, operations, condition (financial or other), results of operations or prospects of the Company and have received satisfactory answers to any such inquiries. Without limiting the generality of the foregoing, the Purchaser has had the opportunity to obtain and to review the SEC Reports and the Disclosure Schedule. In connection with its decision to purchase the Shares, the Purchaser has relied solely upon the SEC Reports, the Disclosure Schedule, the representations, warranties, covenants and agreements of the Company set forth in this Agreement, as well as any investigation of the Company completed by the Purchaser or its advisors. The Purchaser understands that its investment in the Shares involves a high degree of risk.

3.6 DUE AUTHORIZATION. Each Purchaser has all requisite power and authority, corporate or otherwise, to execute, deliver and perform its obligations under this Agreement and the other agreements executed by the Purchaser in connection herewith and to consummate the transactions contemplated hereby and thereby. This Agreement has been duly and validly authorized, duly executed and delivered by each Purchaser and, assuming due execution and delivery by the Company, is a valid and binding agreement of the Purchaser enforceable in accordance with its terms, except as the enforceability hereof may be limited by bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether enforcement is considered in a proceeding in equity or at law.

3.7 NON-CONTRAVENTION. The execution, delivery and performance of this Agreement by each Purchaser and the consummation of any of the transactions contemplated hereby by the Purchaser will not (a) conflict with or result in a breach of any of the terms and provisions of, or constitute a default (or an event which with notice or lapse of time, or both, would

constitute a default) under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Purchaser pursuant to any agreement, instrument, franchise, license or permit to which the Purchaser is a party or by which any of its properties or assets may be bound or (b) violate or conflict with any judgment, decree, order, statute, rule or regulation of any court or any public, governmental or regulatory agency or body applicable to such Purchaser or any of its properties or assets, other than such breaches, defaults or violations that are not reasonably expected to materially impair the ability of each Purchaser to consummate the transactions contemplated by this Agreement. The execution, delivery and performance of this Agreement by each Purchaser and the consummation of the transactions contemplated hereby by each Purchaser does not and will not violate or conflict with any provision of the organizational documents of such Purchaser, as currently in effect. No consent, approval, authorization, order, registration, filing, qualification, license or permit of or with any court or any government agency or body applicable to the Purchaser is required for the execution, delivery and performance of this Agreement or the consummation of the transactions contemplated hereby other than those, if any, which have been obtained on or prior to the Closing Date.

3.8 BROKERS AND FINDERS. No agent, broker, investment banker, financial advisor or other firm or person engaged by the Purchaser is or will be entitled to any broker's or finder's fee or any other commission or similar fee in connection with any of the transactions contemplated by this Agreement.

4. REPRESENTATIONS, WARRANTIES, COVENANTS, ETC. OF THE COMPANY

The Company represents and warrants to the Purchasers that, except as specifically set forth in the Disclosure Schedule, the following matters are true and correct on the date of execution and delivery of this Agreement and will be true and correct on the Closing Date, and the Company covenants and agrees with the Purchasers as follows:

4.1 ORGANIZATION AND AUTHORITY. The Company and each of its Subsidiaries (as defined in Rule 405 under the 1933 Act) is a corporation duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation, and has all requisite corporate power and authority to (i) own, lease and operate its properties and to carry on its business as described in the SEC Reports and as currently conducted and (ii) to execute, deliver and perform its obligations under this Agreement and the Registration Rights Agreement and to consummate the transactions contemplated hereby and thereby. The Company is duly qualified to do business as a foreign corporation and is in good standing in all jurisdictions where such qualification is necessary and where failure so to qualify could have a Material Adverse Effect.

4.2 CAPITALIZATION. The authorized capital of the Company consists of 75,000,000 shares of Common Stock, of which 50,160,477 shares were outstanding on June 30, 2000; (ii) 1,163,102 shares of Class B Preferred Stock, $2.00 par value, none of which are outstanding; and (iii) 3,000,000 shares of Class C Preferred Stock, $.01 par value, of which 350,000 have been designated Class C-1 Junior Participating Cumulative Preferred Stock, none of which are outstanding. The Company is, directly or indirectly, the registered and beneficial owner of all of the outstanding shares of capital stock of each of its Subsidiaries.

Except as set forth on the Disclosure Schedule, there are no outstanding options or warrants for the purchase of, or other rights to purchase or subscribe for, or securities convertible into or exchangeable for, Common Stock or other capital stock of the Company or its Subsidiaries, or any contracts or commitments to issue or sell Common Stock or other capital stock of the Company or its Subsidiaries or any such options, warrants, rights or other securities. All of such outstanding shares of capital stock of the Company and each Subsidiary have been duly authorized and validly issued and are fully paid and nonassessable and all of such options, warrants and other rights have been duly authorized by the Company and such Subsidiary. None of the outstanding shares of capital stock and options, warrants and other rights to acquire Common Stock has been issued in violation of the preemptive rights of any security holder of the Company or any Subsidiary. The offers and sales of the outstanding shares of capital stock of the Company and options, warrants and other rights to acquire Common Stock or other capital stock of the Company were at all relevant times either registered under the 1933 Act and applicable state securities laws or exempt from such requirements. Except as set forth in the Disclosure Schedule, no holder of any of the securities of the Company or any of its Subsidiaries has any rights ("demand," "piggy-back" or otherwise), to have such securities registered by reason of the intention to file, filing or effectiveness of a Registration Statement. Other than Polmerix, the Company has no Subsidiaries.

4.3 THE SHARES AND THE COMMON STOCK. The Shares have been duly authorized, and when delivered to the Purchasers by the Company against payment of the consideration set forth herein, will be validly issued, fully paid and nonassessable and will not subject the holders thereof to personal liability by reason of being such holders. The holders of outstanding shares of capital stock of the Company are not entitled to preemptive or other rights to subscribe for the Shares. The Common Stock is listed for trading on Nasdaq and (i) the Company and the Common Stock meet the criteria for continued listing and trading on Nasdaq; (ii) the Company has not been notified by the NASD of any failure or potential failure to meet the criteria for continued listing and trading on Nasdaq; and (iii) no suspension of trading in the Common Stock is in effect. The Company knows of no reason why the Shares will not be eligible for listing on Nasdaq.

4.4 CORPORATE AUTHORIZATION. The Company's execution, delivery and performance of this Agreement and the Registration Rights Agreement have been duly and validly authorized by all requisite corporate action by the Company and, assuming due execution and delivery by the Purchasers, will be valid and binding obligations of the Company enforceable in accordance with their terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether enforcement is considered in a proceeding in equity or at law.

4.5 NON-CONTRAVENTION. The execution and delivery of this Agreement and the Registration Rights Agreement by the Company and the consummation by the Company of the offer and sale of the Shares and the other transactions contemplated by this Agreement and the Registration Rights Agreement do not and will not, with or without the giving of notice or the lapse of time, or both (i) result in any violation of any provision of the certificate of incorporation or by-laws of the Company or any of its Subsidiaries; (ii) conflict with or result in a breach by the Company or any of its Subsidiaries of any of the terms or provisions of, or

constitute a default under, or result in the modification of, or result in the creation or imposition of any lien, security interest, charge or encumbrance upon any of the properties or assets of the Company or any of its Subsidiaries pursuant to, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries or any of their respective properties or assets are bound or affected; (iii) violate or contravene any applicable law, rule or regulation or any applicable decree, judgment or order of any court, United States federal or state regulatory body, administrative agency or other governmental body having jurisdiction over the Company or any of its Subsidiaries or any of their respective properties or assets; or (iv) violate or contravene any permit, certification, registration, approval, consent, license or franchise necessary for the Company or any of its Subsidiaries to own or lease and operate any of their respective properties and to conduct any of their respective business or the ability of the Company or any of its Subsidiaries to make use thereof.

4.6 APPROVALS. No authorization, approval or consent of, or filing with, any court, governmental body, regulatory agency, self-regulatory organization, stock exchange or market or the stockholders of the Company is required to be obtained or made by the Company in connection with the execution, delivery and performance of this Agreement and the Registration Rights Agreement and sale of the Shares as contemplated by this Agreement, other than (i) registration of the resale of the Shares under the 1933 Act as contemplated by the Registration Rights Agreement, (ii) as may be required under applicable state securities or "blue sky" laws and (iii) filing one or more Forms D with respect to the Shares as required under Regulation D.

4.7 INFORMATION PROVIDED. The documents listed on the Disclosure Schedule provided by or on behalf of the Company to the Purchasers do not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading, it being understood that for purposes of this Section 4.7, any statement contained in such information shall be deemed to be modified or superseded for purposes of this Section 4.7 to the extent that a statement in any document included in such documents which was prepared or filed with the SEC on a later date modifies or replaces such statement, whether or not such later prepared or filed statement so states.

4.8 SEC FILINGS. The Company has timely filed all reports required to be filed under the 1933 Act and the 1934 Act with the SEC since June 30, 1999 All of such reports and documents complied, when filed, in all material respects, with all applicable requirements of the 1933 Act and the 1934 Act. The Company meets the requirements for the use of Form S-3 for the registration of the resale of the Shares by the Purchasers and will use its best efforts to maintain S-3 status with the SEC during the Registration Period (as defined in the Registration Rights Agreement). The Company does not know of any current facts or circumstances (including without limitation any required approvals or waivers of any circumstances that may delay or prevent the obtaining of accountant's consents) that would prohibit or delay the preparation and filing of a registration statement on Form S-3 with respect to the Registrable Securities (as defined in the Registration Rights Agreement).

4.9 ABSENCE OF MATERIAL CHANGES. Except as disclosed in the Disclosure Schedule attached hereto, since March 31, 2000, there has been no event which could reasonably be

expected to have a Material Adverse Effect whether or not arising from transactions in the ordinary course of business.

4.10 CONDUCT OF BUSINESS. Except as set forth in the SEC Reports, since March 31, 2000 there has been no Material Adverse Effect and neither the Company nor any of its Subsidiaries has (i) incurred any material obligation or liability (absolute or contingent) other than in the ordinary course of business and in amounts consistent with past practices; (ii) canceled, without payment in full, any material notes, loans or other obligations receivable or other debts or claims held by it other than in the ordinary course of business and in amounts consistent with past practices; (iii) sold, assigned, transferred, abandoned, mortgaged, pledged or subjected to lien any of its material properties, tangible or intangible, or rights under any material contract, permit, license, franchise or other agreement; (iv) conducted its business in a manner materially different from its business as conducted on such date; or (v) declared, made or paid or set aside for payment any cash or non-cash distribution on any shares of its capital stock. Except as disclosed in the SEC Reports, the Company and its Subsidiaries own, possess or have obtained all governmental, administrative and third-party licenses, permits, certificates, registrations, approvals, consents and other authorizations necessary to own or lease (as the case may be) and operate their properties, whether tangible or intangible, and to conduct their business or operations as currently conducted, except such licenses, permits, certificates, registrations, approvals, consents and authorizations the failure of which to obtain would not have a Material Adverse Effect.

4.11 ABSENCE OF CERTAIN PROCEEDINGS. Except as described in the SEC Reports or as set forth in the Disclosure Schedule, there is no action, suit, proceeding, inquiry or investigation before or by any court, public board or body pending or, to the knowledge of the Company, threatened against or affecting the Company or any of its Subsidiaries wherein an unfavorable decision, ruling or finding could reasonably be expected to have a Material Adverse Effect or which could adversely affect the validity or enforceability of, or the authority or ability of the Company to perform its obligations under, this Agreement or the Registration Rights Agreement. The Company does not have pending before the SEC any request for confidential treatment of information, and to the best of the Company's knowledge, no such request will be made by the Company prior to the Effective Date (as defined in the Registration Rights Agreement) except as set forth in the Disclosure Schedule; and, to the best of the Company's knowledge there is not pending or contemplated, and there has been no, investigation by the SEC involving the Company or any current director or officer of the Company.

4.12 INTELLECTUAL PROPERTY. Except as set forth in the Disclosure Schedule, each of the Company and its Subsidiaries owns or has the right to use all patent rights, trademarks, trade names, service marks, logos, copyrights, formulas, methods and processes (hereinafter referred to as "Intangible Property") currently used in connection with the conduct of their respective businesses. Except as otherwise set forth in the Disclosure Schedule, no royalties or fees payable by the Company or its Subsidiaries to any Person by reason of the ownership or use of any Intangible Property have not been paid. Except as set forth in the Disclosure Schedule, the Company (i) is unaware of any present infringement upon the Intangible Property; and (ii) does not knowingly or willfully infringe upon the proprietary rights of others. To the best of the Company's knowledge and belief, all items of Intangible Property are valid and are adequate and sufficient to permit the Company to conduct its business as presently conducted, and no other patent rights are required by the Company for its operations

as currently conducted. Except as set forth in the Disclosure Schedule, the Company, to the best of its knowledge, is unaware of any claim or charge by any other Person that the Company or its Subsidiaries infringe upon the intellectual property rights of such Person.

4.13 COMPLIANCE WITH LAW. The Company and its Subsidiaries are in possession of all material franchises, grants, authorizations, licenses, permits, easements, variances, exemptions, consents, certificates, approvals and orders necessary to own, lease and operate their properties and to carry on their businesses as they are now being conducted, except those the absence of which would not have a Material Adverse Effect (collectively, the "Permits"), and there is no action pending or, to the knowledge of the Company, threatened regarding suspension or cancellation of any of the Permits. To the best of the Company's knowledge, neither the Company nor any of its Subsidiaries is in material violation of any statute, law, rule, regulation, ordinance, decision or order of any governmental agency or body or any court, domestic or foreign, except where such violation would not individually or in the aggregate have a Material Adverse Effect; and the Company is not aware of any pending investigation that would reasonably be expected to lead to such a claim.

4.14 INSURANCE. The Company maintains and will continue to maintain insurance against loss or damage by fire or other casualty and such other insurance, including, but not limited to, product liability insurance, in such amounts and covering such risks as is reasonably adequate consistent with industry practice for the conduct of its business and the value of its properties, all of which insurance is in full force and effect.

4.15 TAX MATTERS. The Company has filed all federal, state and local income and franchise and other tax returns required to be filed and has paid all taxes due, and no tax deficiency has been determined adversely to the Company which has had (nor does the Company have any knowledge of any tax deficiency which, if determined adversely to the Company, might have) a Material Adverse Effect.

4.16 INVESTMENT COMPANY. The Company is not an "investment company" within the meaning of such term under the Investment Company Act of 1940 and the rules and regulations of the SEC thereunder.

4.17 ABSENCE OF BROKERS, FINDERS, ETC No broker, finder or similar Person is entitled to any commission, fee or other compensation by reason of the transactions contemplated by this Agreement other than PaineWebber, whose compensation will be paid solely by the Company.

4.18 NO GENERAL SOLICITATION. No form of general solicitation or general advertising was used by the Company or, to the best of its knowledge, any other Person acting on behalf of the Company, in respect of the Shares or in connection with the offer and sale of the Shares. Neither the Company nor, to its knowledge, any Person acting on behalf of the Company has, either directly or indirectly, sold or offered for sale to any Person any of the Shares or, since January 1, 2000, any other similar security of the Company, except as set forth on the Disclosure Schedule to this Agreement, and the Company represents that neither the Company nor any Person authorized to act on its behalf will sell or offer for sale any such security to, or solicit any offers to buy any such security from, or otherwise approach or

negotiate in respect thereof with, any Person so as thereby to cause the issuance or sale of any of the Shares to be in violation of any of the provisions of Section 5 of the 1933 Act.

4.19 NO DIRECTED SELLING EFFORTS. The Company has not engaged in any directed selling efforts (within the meaning of Regulation S) with respect to the sale of the Shares under this Agreement.

4.20 NO INTEGRATION. The Company has not sold, offered to sell, solicited offers to buy or otherwise negotiated in respect of any "security" (as defined in the 1933 Act) that is or could be integrated with the sale of the Shares in a manner that would require the registration of the Shares under the 1933 Act.

4.21 STOP TRANSFERS. The Company will not register any transfer of the Shares not made pursuant to the provisions of Regulation S, pursuant to the registration requirements of the 1933 Act or pursuant to an available exemption from registration under the 1933 Act.

4.22 NO REGISTRATION. Assuming the accuracy of the representations and warranties made by, and compliance with the covenants of, the Purchasers in Section 3 hereof, no registration of the Shares under the 1933 Act is required in connection with the sale of the Shares to the Purchasers as contemplated by this Agreement.

4.23 FINANCIAL STATEMENTS. The financial statements of the Company and the related notes contained in the SEC Reports present fairly, in accordance with generally accepted accounting principles, the financial position of the Company and its Subsidiaries as of the dates indicated, and the results of its operations and cash flows for the periods therein specified. Such financial statements (including the related notes) have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods therein specified, except as disclosed in the SEC Reports.

4.24 INTERNAL ACCOUNTING CONTROLS. The Company and its Subsidiaries maintain a system of internal accounting controls sufficient, in the judgment of the Company's board of directors, to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability, (iii) access to assets is permitted only in accordance with management's general or specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

4.25 FOREIGN CORRUPT PRACTICES. Neither the Company nor any of its Subsidiaries, nor, to the knowledge of the Company or any Subsidiary, any agent or other Person acting on behalf of the Company or any of its Subsidiaries, have (i) directly or indirectly, used any corporate funds for lawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any lawful payment to foreign or domestic government officials or employees or to foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or made by any Person acting on its behalf and of which the Company is aware in

violation of law; or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

5. CERTAIN COVENANTS

5.1 NASDAQ; REPORTING STATUS. The Company shall use its best efforts to take such actions as may be necessary and as soon as practicable and in no event later than 20 days after the Closing Date to file with Nasdaq an application or other document required by Nasdaq and pay all applicable fees for the listing of the Shares with Nasdaq and shall provide evidence of such filing to the Purchasers. So long as any of the Purchasers beneficially own any portion of the Shares, the Company will use its best efforts to maintain the inclusion of the Common Stock on Nasdaq or the listing of the Common Stock on a national securities exchange; provided, however, that this will not restrict the Company from engaging in any transaction which results in all of the capital stock of the Company being acquired in a business combination or other acquisition transaction.

5.2 FORM D. The Company agrees to file one or more Forms D with respect to the Shares on a timely basis as required under Regulation D to claim the exemption provided by Rule 506 of Regulation D and to provide a copy thereof to the Purchasers promptly after such filing.

5.3 STATE SECURITIES LAWS. On or before the Closing Date, the Company shall take such action as shall be necessary to qualify, or to obtain, an exemption for the Shares under such of the securities laws of United States jurisdictions as shall be necessary to qualify, or to obtain an exemption from, the sale of the Shares. The Company shall furnish the Purchasers with copies of all filings, applications, orders and grants or confirmations of exemptions relating to such securities laws on or before the Closing Date.

5.4 CERTAIN FUTURE FINANCINGS AND RELATED ACTIONS.

(a) The Company will not sell, offer to sell, solicit offers to buy or otherwise negotiate in respect of any "security" (as defined in the 1933 Act) that is or could be integrated with the sale of the Shares in a manner that would require the registration of the Shares under the 1933 Act.

(b) The Company shall not offer, sell, contract to sell or issue (or engage any Person to assist the Company in taking any such action) any equity securities or securities convertible into, exchangeable for or otherwise entitling the holder to acquire, any Common Stock at a price below the market price of the Common Stock during the period from the date of this Agreement to the Effective Date, as defined in the Registration Rights Agreement; provided, however, that nothing in this Section 5.4(b) shall prohibit the Company from issuing securities (v) pursuant to compensation plans for employees, directors, officers, advisors or consultants of the Company and in accordance with the terms of such plans as in effect as of the date of this Agreement; (w) upon exercise of conversion, exchange, purchase or similar rights issued, granted or given by the Company and outstanding as of the date of this Agreement; (x) pursuant to a public offering underwritten on a firm commitment basis registered under the 1933 Act; (y) for the purpose of funding

the acquisition of securities or assets of any entity in a single transaction or a series of related transactions; or (z) pursuant to a strategic partnership or alliance or similar commercial agreement (including licensing and similar arrangements) between the Company and industry participants.

5.5 USE OF PROCEEDS. The net proceeds received by the Company will be used to fund working capital needs and operating expenses.

6. CONDITIONS TO THE COMPANY'S OBLIGATION TO SELL

The Purchasers understand that the Company's obligation to sell the Shares to the Purchasers pursuant to this Agreement is conditioned upon satisfaction of the following conditions precedent on or before the Closing Date (any or all of which may be waived by the Company in its sole discretion):

(a) the delivery by each of the Purchasers to the Company of an amount equal to the Purchase Price as set forth opposite its name on the signature pages attached hereto;

(b) on the Closing Date, no legal action, suit or proceeding shall be pending or threatened which seeks to restrain or prohibit the transactions contemplated by this Agreement; and

(c) the representations and warranties of the Purchasers contained in this Agreement and in the Questionnaire shall have been true and correct on the date of this Agreement and on the Closing Date as if made on the Closing Date and on or before the Closing Date the Purchasers shall have performed all covenants and agreements of the Purchasers required to be performed by the Purchasers on or before the Closing Date.

7. CONDITIONS TO THE PURCHASERS' OBLIGATION TO PURCHASE

The Company understands that the Purchasers' obligation to purchase the Shares is conditioned upon satisfaction of the following conditions precedent on or before the Closing Date (any or all of which may be waived by the Purchasers in their sole discretion):

(a) delivery by the Company to the Purchasers of the share certificates representing the Shares in accordance with this Agreement;

(b) on the Closing Date, no legal action, suit or proceeding shall be pending or threatened which seeks to restrain or prohibit the transactions contemplated by this Agreement;

(c) the representations and warranties of the Company contained in this Agreement shall have been true and correct on the date of this Agreement and shall be true and correct on the Closing Date as if given on and as of the Closing Date (except

for representations given as of a specific date, which representations shall be true and correct as of such date), and on or before the Closing Date the Company shall have performed all covenants and agreements of the Company contained herein required to be performed by the Company on or before the Closing Date;

(d) the Company shall have delivered to the Purchasers its certificate, dated the Closing Date, duly executed by its Chief Executive Officer to the effect set forth in subparagraphs (b) and (c) of this Section 7;

(e) the receipt by the Purchasers of a certificate, dated the Closing Date, of the Secretary or Assistant Secretary of the Company certifying (i) the Certificate of Incorporation and Bylaws of the Company as in effect on the Closing Date, (ii) all resolutions of the board of directors (and committees thereof) of the Company relating to this Agreement, the Registration Rights Agreement and the transactions contemplated hereby and thereby and (iii) such other matters as are reasonably requested by the Purchasers;

(f) the Company shall have executed the Registration Rights Agreement;

(g) on the Closing Date, the Purchasers shall have received an opinion of Goodwin, Procter & Hoar LLP, counsel for the Company, dated the Closing Date, addressed to the Purchasers, in form, scope and substance reasonably satisfactory to the Purchasers, substantially in the form of Annex B hereto; and

(h) on the Closing Date, (i) trading in securities on the New York Stock Exchange, Inc., the American Stock Exchange, Inc. or Nasdaq shall not have been suspended or materially limited and (ii) a general moratorium on commercial banking activities in the Commonwealth of Massachusetts or the State of New York shall not have been declared by either federal or state authorities.

8. INDEMNIFICATION

8.1 INDEMNIFICATION BY STOCKHOLDERS. The Company agrees to indemnify and hold harmless each Purchaser (each a "Company Indemnified Party") from and against any and all claims, actions, suits, liabilities, losses, damages, and expenses of every nature and character whether accrued, absolute, contingent or otherwise (including, but not by way of limitation, all reasonable attorneys' fees incurred by the Purchaser and all amounts paid by it in settlement of any claim, action, suit or liability) (collectively, a "Claim"), which arise or result directly or indirectly by reason of any error, misstatement or omission in any representation or warranty, or breach of any covenant, made by the Company in this Agreement, or the Disclosure Schedule; provided, however, that the indemnification obligation of the Company with respect to any Purchaser hereunder shall be limited to the dollar amount that such Purchaser invested in the Company as set forth on the signature page hereto plus any reasonable out-of pocket expenses, (including, but not by way of limitation) all reasonable attorney's fees, incurred by such Purchaser. The parties agree that the rights to indemnification under this Section 8 shall be exclusive of all rights of indemnification or other

remedies that any Company Indemnified Party would otherwise have in connection with the transactions contemplated by this Agreement.

9. MISCELLANEOUS

9.1 GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY AND INTERPRETED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS OF THE UNITED STATES.

9.2 HEADINGS. The headings and captions used in this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

9.3 SEVERABILITY. If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement or the validity or enforceability of this Agreement in any other jurisdiction.

9.4 NOTICES. Any notices required or permitted to be given under the terms of this Agreement shall be in writing and shall be sent by mail, personal delivery, by telephone line facsimile transmission or courier and shall be effective five (5) days after being placed in the mail, if mailed, or upon receipt, if delivered personally, by telephone line facsimile transmission or by courier, in each case addressed to a party at such party's address (or telephone line facsimile transmission number) shown in the introductory paragraph or on the signature page of this Agreement or such other address (or telephone and facsimile transmission numbers) as a party shall have provided by notice to the other parties in accordance with this provision. In the case of any notice to the Company, such notice should be addressed to the Company at its address shown in the introductory paragraph of this Agreement, Attention: Dr. Una S. Ryan, Ph.D. (telephone and facsimile transmission numbers: (781) 433-3101, (781) 433-3191), and a copy shall also be given to: Goodwin, Proctor & Hoar LLP, Attention: Stuart Cable, P.C., (telephone and facsimile transmission numbers: (617) 570-1322, (617) 523-1231), and in the case of any notice to the Purchasers, a copy shall be given to: PaineWebber, Attention: Legal Department (telephone and facsimile transmission numbers: Don Mittman, telephone: (212) 713-4411, in each case with a copy to: Jeffrey Marcus, Morrison & Foerster LLP, telephone: (212) 468-8137, facsimile: (212) 468- 7900.

9.5 COUNTERPARTS. This Agreement may be executed in counterparts and by the parties hereto on separate counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. A telephone line facsimile transmission of this Agreement bearing a signature on behalf of a party hereto shall be legal and binding on such party.

9.6 ENTIRE AGREEMENT; BENEFIT. This Agreement together with the Annexes and Disclosure Schedule, constitute the entire agreement among the parties hereto with respect to the subject matter hereof. There are no restrictions, promises, warranties or undertakings other than those set forth or referred to herein and therein. This Agreement, including the Annexes hereto and Disclosure Schedule, supersede all prior agreements and understandings,

whether written or oral, between the parties hereto with respect to the subject matter hereof. This Agreement and the terms and provisions hereof are for the sole benefit of only the Company, the Purchasers and their respective successors and permitted assigns.

9.7 WAIVER. Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, or course of dealing between the parties shall not operate as a waiver thereof or an amendment hereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or exercise of any other right or power.

9.8 AMENDMENT. No amendment, modification, waiver, discharge or termination of any provision of this Agreement or consent to any departure by the Purchasers or the Company therefrom shall in any event be effective unless the same shall be in writing and signed by the party to be charged with enforcement, and then shall be effective only in the specific instance and for the purpose for which given. No course of dealing between the parties hereto shall operate as an amendment of this Agreement.

9.9 FURTHER ASSURANCES. Each party to this Agreement will perform any and all acts and execute any and all documents as may be necessary and proper under the circumstances in order to accomplish the intents and purposes of this Agreement and to carry out its provisions.

9.10 ASSIGNMENT. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto; provided, however, that the right of the Purchasers to purchase Shares shall not be assignable without the consent of the Company (such consent not to be unreasonably withheld).

9.11 EXPENSES. Each of the Company and the Purchasers shall bear its own expenses in connection with the preparation and negotiation of this Agreement and the consummation of the transactions contemplated hereby. Notwithstanding the foregoing, the Company agrees to pay all reasonable fees and disbursements, not to exceed $25,000, of Morrison & Foerster LLP, counsel to the Purchasers, in connection with the negotiation, documentation and consummation of this Agreement and the transactions contemplated hereby.

9.12 TERMINATION. The Purchasers shall have the right to terminate this Agreement by giving notice to the Company at any time at or prior to the Closing Date if:

(a) any condition to the Purchasers' obligations hereunder is not fulfilled; or

(b) the closing shall not have occurred on a Closing Date on or before July 31, 2000, other than solely by reason of a breach of this Agreement by the Purchasers.

Any such termination shall be effective upon the giving of notice thereof by the Purchasers. Upon such termination, the Purchasers shall have no further obligation to the Company hereunder and the Company shall remain liable for any breach of this Agreement or the other documents contemplated hereby which occurred on or prior to the date of such termination.

9.13 SURVIVAL. The respective representations, warranties, covenants and agreements of the Company and the Purchasers contained in this Agreement and the documents delivered in connection with this Agreement shall survive the execution and delivery of this Agreement and the closing hereunder and delivery of and payment for the Shares, and shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Purchasers or any Person controlling or acting on behalf of the Purchasers or by the Company or any Person controlling or acting on behalf of the Company.

9.14 PUBLIC STATEMENTS, PRESS RELEASES, ETC. The Company and the Purchasers shall have the right to approve before issuance any press releases or any other public statements with respect to the transactions contemplated hereby; provided, however, that the Company shall be entitled, without the prior approval of the Purchasers, to make any press release or other public disclosure with respect to such transactions as is required by applicable law and regulations, including the 1933 Act and the rules and regulations promulgated thereunder and the rules and regulations of the Nasdaq National Market (although the Purchasers and their counsel shall be consulted and provided with a draft press release by the Company in connection with any such press release or other public disclosure prior to its release and shall be provided with a final copy thereof promptly following the release thereof).

9.15 CONSTRUCTION. The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

9.16 NO CULPABILITY. Each of the Purchasers (other than PaineWebber) (the "Other Purchasers") represent and warrant to PaineWebber on their own behalf and on behalf of any beneficial owner which they may represent as follows:

(a) that they have sufficient knowledge and experience and have taken such professional advice as they think necessary to make their own evaluation of the merits and risks involved in making the investment envisaged by this Agreement;

(b) that they have been, and will at all times continue to be, solely responsible for making their own independent appraisal of and investigation into the business, financial condition, prospects, creditworthiness, status and affairs of the Company;

(c) that they are sophisticated investors capable of bearing the economic risk of losing their entire investment in the Company;

(d) that they understand that PaineWebber is at all times, and will at all times be, acting on its own behalf and not on behalf of the Other Purchasers or any of them;

(e) they have not relied, and will not at any time rely, on PaineWebber or any of its affiliates to provide them with any information relating to, or to keep under review on their behalf, any business, financial conditions, prospects, creditworthiness or status of affairs of the Company or conducting any investigation or due diligence into the Company; and

(f) that they understand that they are not clients of PaineWebber and will not receive the protections that such clients are afforded.

IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by their respective officers hereunto duly authorized as of the date first set forth above.

AVANT IMMUNOTHERAPEUTICS, INC.

By: /s/ Una S. Ryan

Name: Una S. Ryan
Title: President and CEO

BAYSTAR CAPITAL L.P.

By: /s/ Steven Lamar

Name: Steven Lamar
Its Duly Authorized Signatory

BAYSTAR INTERNATIONAL

By: /s/ Steven Lamar

Name: Steven Lamar
Its Duly Authorized Signatory

CATALYST PARTNERS, L.P.

By: /s/ Alison Rosen

Name: Alison Rosen
Its Duly Authorized Signatory

CATALYST INTERNATIONAL, L.P.

By: /s/ Alison Rosen

Name: Alison Rosen
Its Duly Authorized Signatory

CLARION CAPITAL CORPORATION

By: /s/ Morton Cohen

Name: Morton Cohen
Its Duly Authorized Signatory

CLARION PARTNERS, L.P

By: /s/ Morton Cohen

Name: Morton Cohen
Its Duly Authorized Signatory

CLARION OFFSHORE FUND LTD.

By: /s/ Morton Cohen

Name: Morton Cohen
Its Duly Authorized Signatory

+

DRESDNER RCM BIOTECHNOLOGY FUND

By: /s/ Anthony Ain

Name: Anthony Ain
Its Duly Authorized Signatory

FRAMLINGTON HEALTH FUND

By: /s/ Anthony Milford

Name: Anthony Milford
Its Duly Authorized Signatory

MUNDER FRAMLINGTON HEALTHCARE FUND

By: /s/ Anthony Milford

Name: Anthony Milford
Its Duly Authorized Signatory

JALAA EQUITIES, LP

By: /s/ Jason Aryeh

Name: Jason Aryeh
Its Duly Authorized Signatory

HALIFAX FUND, L.P

By: /s/ Steven W. Weiner

Name: Steven W. Weiner
Its Duly Authorized Signatory

PICTET BIOTECH

By: /s/ Vincent Ossipow

Name: Vincent Ossipow
Its Duly Authorized Signatory

PICTET ASSET MANAGEMENT UK LTD.

For:
Pictet Biotech Fund (Genome)
By: /s/ Sam Perry

Name: Sam Perry
Its Duly Authorized Signatory

PETER SEARS

By: /s/ Peter Sears

Name: Peter Sears

NARRAGANSETT I, LP

By: /s/ Joseph L. Dowling III

Name: Joseph L. Dowling III
Its Duly Authorized Signatory

NARRAGANSETT OFFSHORE, LTD.

By: /s/ Joseph L. Dowling III

Name: Joseph L. Dowling III
Its Duly Authorized Signatory

FINSBURY TECHNOLOGY TRUST

By: /s/ C.J. Edge

Name: C.J. Edge
Its Duly Authorized Signatory

CONSULTA TECHNOLOGY FUND

By: /s/ Barry Carroll

Name: Barry Carroll
Its Duly Authorized Signatory

PULSAR TECHNOLOGY FUND

By: /s/ Mr. Nitin Aggarwahl

Name: Mr. Nitin Aggarwahl
Its Duly Authorized Signatory

FGI BIOTECHNOLOGY FUND

By: /s/ Dr. Andrew Clark

Name: Dr. Andrew Clark
Its Duly Authorized Signatory

REGISTRATION RIGHTS AGREEMENT

THIS REGISTRATION RIGHTS AGREEMENT is made as of July 13, 2000, by and among Avant Immunotherapeutics, Inc., a Delaware corporation (the "Company"), and the Persons set forth on Schedule I attached hereto (the "Investors").

This Agreement is made pursuant to a certain Securities Purchase Agreement dated as of the date hereof by and among the Company and the purchasers named therein (the "Purchase Agreement"). The execution of this Agreement is a condition to the closing of the transactions contemplated by the Purchase Agreement.

NOW, THEREFORE, the parties hereto, in consideration of the foregoing, the mutual covenants and agreements hereinafter set forth, and other good and valuable consideration, the receipt and sufficiency of which hereby are acknowledged, agree as follows:

1. REGISTRATION STATEMENTS.

(a) SHELF REGISTRATION.

(i) The Company shall, on or before the date which is 20 days after the Closing Date, prepare and file with the Commission under the Securities Act a Registration Statement on Form S-3 for sale of the Registrable Securities by the Investors on a delayed or continuous basis under Rule 415 of the Securities Act, and shall use its best efforts to cause such Registration Statement to be declared effective at the earliest practicable date, but in no event later than the 120 th day after the Closing Date. The Company shall at its own expense, subject to Section 1(a)(iv), ensure the availability of a Prospectus meeting the requirements of Section 10(a) of the Securities Act and shall take any and all other actions necessary in order to ensure the ability of the holders of all of the Registrable Securities to effect a resale of their Registrable Securities, for such period as the Company is obligated to maintain the effectiveness of a Registration Statement pursuant to Section 1(a)(ii).

(ii) The Company shall use its best efforts to cause any such Registration Statement described in Section 1(a)(i) to remain effective (or, if required by applicable law, to cause another Registration Statement with respect to the Registrable Securities to become and remain effective) until the earliest to occur of: (i) such time as all the Registrable Securities have been sold by the Investors; (ii) such time as all the Registrable Securities held by the Investors could be sold under Rule 144 of the Securities Act during any 90-day period without restriction (including without limitation as to volume by each holder thereof); and (iii) the date which is two years after the Effective Date.

(iii) The Company shall, at all times during the Registration Period, subject to Section 1(a)(iv), promptly: (A) file such amendments to the Registration Statement and the Prospectus, file such documents as may be required to be incorporated by reference in any of such documents, and take all other actions as may be necessary to ensure to the holders of Registrable Securities the ability to effect the public resale of their Registrable Securities (including without limitation taking any actions necessary to ensure the availability of a Prospectus meeting the requirements of Section 10(a) of the Securities Act) continuously through

the Registration Period; and (B) provide each holder of Registrable Securities copies of any documents prepared pursuant to Section 1(a)(iv)(A) promptly after such preparation.

(iv) The Company may suspend the effectiveness of any Registration Statement filed pursuant to this Section 1(a) if, in its reasonable judgment, (A) maintaining the effectiveness of such Registration Statement at such time would materially adversely affect a proposed financing, reorganization or recapitalization of the Company, or pending negotiations relating to a merger, consolidation, acquisition or similar transaction involving the Company; or (B) financial statements meeting the requirements of Regulation S-X are not available at such time because of any such pending proposal or negotiations; provided, however, that the right of the Company pursuant to this subsection (iv) to suspend the effectiveness of the Registration Statement shall not extend for more than 30 consecutive days for any single suspension event and may not be exercised more than twice during any period of 12 consecutive months; and provided, further, that the Company shall give to each holder of Registrable Securities prior written notice of such suspension.

(b) AMENDMENTS. Upon the occurrence of any event that would cause any Registration Statement (i) to contain a material misstatement or omission or (ii) not to be effective and usable for resale of Registrable Securities during the period that such Registration Statement is required to be effective and usable, the Company shall promptly file an amendment to the Registration Statement, in the case of clause (i), correcting any such misstatement or omission, and in the case of either clause (i) or (ii), using its best efforts to cause such amendment to be declared effective and such Registration Statement to become usable as soon as practicable thereafter.

(c) REPRESENTATION AND WARRANTY. The Company represents and warrants to the Investors that (i) the Registration Statement (including any amendments or supplements thereto and prospectuses contained therein), at the time it is first filed with the SEC, at the time it is ordered effective by the SEC and at all times during which it is required to be effective hereunder (and each such amendment and supplement at the time it is filed with the SEC and at all times during which it is available for use in connection with the offer and sale of the Registrable Securities) shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading and (ii) the Prospectus, at the time the Registration Statement is declared effective by the SEC and at all times, subject to Section 1(a)(iv) hereof, that the Prospectus is required by this to be available for use by any Investor and, in accordance with this Agreement, any Investor is entitled to sell Registrable Securities pursuant to the Prospectus, shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading.

2. REGISTRATION PROCEDURES.

In connection with any Registration Statement and subject to the provisions of Section 1, the Company shall use its best efforts to effect such registration to permit the sale of the Registrable Securities being sold in accordance with the intended method or methods of distribution thereof, and pursuant thereto the Company shall as expeditiously as possible:

(a) prepare and file with the Commission a Registration Statement relating to the registration on Form S-3 under the Securities Act, which form shall be available for the sale of the Registrable Securities being sold in accordance with the intended method or methods of distribution thereof and shall include all financial statements required by the Commission to be filed therewith (including, if required by the Securities Act or any regulation thereunder, financial statements of any Subsidiary (as defined in Rule 405 under the Securities Act) of the Company which shall have guaranteed any indebtedness of the Company), cooperate and assist in any filings required to be made with the NASD and use its best efforts to cause such Registration Statement to become effective and approved by such governmental agencies or authorities as may be necessary to enable the selling holders to consummate the disposition of such Registrable Securities;

(b) prepare and file with the Commission such amendments and post-effective amendments to the Registration Statement as may be necessary to keep the Registration Statement effective for the Registration Period; in the case of any Registration Statement filed pursuant to Rule 415 under the Securities Act, cause the Prospectus to be supplemented by any required Prospectus supplement, and as so supplemented to be filed pursuant to Rule 424 under the Securities Act, and to comply fully with the applicable provisions of Rules 424 and 430A under the Securities Act in a timely manner, and to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such Registration Statement during the applicable period in accordance with the intended method or methods of distribution by the sellers thereof set forth in such Registration Statement or supplement to the Prospectus;

(c) advise the holders of the Registrable Securities promptly (and in any event within one Business Day, by e-mail, fax or other type of communication) and, if requested by such Persons, confirm such advice in writing:

(i) when the Prospectus or any Prospectus supplement or post-effective amendment has been filed, and, with respect to the Registration Statement or any post-effective amendment thereto, when the same has become effective;

(ii) of the existence of any fact and the happening of any event that makes any statement of a material fact made in the Registration Statement, the Prospectus, any amendment or supplement thereto, or any document incorporated by reference therein untrue, or that requires the making of any additions to or changes in the Registration Statement or the Prospectus in order to make the statements therein not misleading; and

(iii) of the issuance by the Commission of any stop order or other order suspending the effectiveness of the Registration Statement, or any order issued by any state securities commission or other regulatory authority suspending the qualification or exemption from qualification of such Registrable Securities under state securities or "blue sky" laws. If at any time the Company shall receive any such stop order suspending the effectiveness of the Registration Statement, or any such order from a state securities commission or other regulatory authority, the Company shall use its best efforts to obtain the withdrawal or lifting of such order at the earliest possible time.

(d) deliver to each holder of the Registrable Securities, without charge, as many copies of the Prospectus and any amendment or supplement thereto as such Persons may reasonably request; the Company consents to the use of the Prospectus and any amendment or supplement thereto by each of the holders of the Registrable Securities in connection with the offering and the sale of the Registrable Securities covered by the Prospectus or any amendment or supplement thereto;

(e) prior to any public offering of Registrable Securities, cooperate with the holders of the Registrable Securities and their respective counsel in connection with the registration and qualification of the Registrable Securities under the securities or "blue sky" laws of such jurisdictions as the holders of the Registrable Securities may reasonably request and do any and all other acts or things necessary or advisable to enable the disposition in such jurisdictions of the Registrable Securities covered by the Registration Statement;

(f) use its best efforts to cause the Registrable Securities covered by the Registration Statement to be registered with or approved by such other governmental agencies or authorities as may be necessary to enable the seller or sellers thereof to consummate the disposition of such Registrable Securities;

(g) if any fact or event contemplated by clause (c)(ii) above shall exist or have occurred, prepare a supplement or post-effective amendment to the Registration Statement or related Prospectus or any document incorporated therein by reference or file any other required document so that, as thereafter delivered to the purchasers of Registrable Securities, the Prospectus will not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein not misleading;

(h) make available for inspection during normal business hours by a representative of the holders of the Registrable Securities, and any attorney, accountant or other professional retained by such holders, all financial and other records, pertinent corporate documents and properties of the Company, and cause the Company's officers, directors and employees to supply all information reasonably requested by any such holder, attorney, accountant or other professional in connection with such Registration Statement subsequent to the filing thereof and prior to its effectiveness, except that the aforementioned advisors may be required to sign a confidentiality agreement containing customary terms and exceptions;

(i) otherwise use its best efforts to comply with all applicable rules and regulations of the Commission;

(j) use its best efforts to cause all Registrable Securities to be listed on each securities exchange or market, if any, on which equity securities issued by the Company are then listed; and

(k) use its best efforts to take all other steps necessary to effect the registration of the Registrable Securities contemplated hereby.

It shall be a condition precedent to the obligations of the Company to complete the registration pursuant to this Agreement with respect to the Registrable Securities of a particular Investor that such Investor shall furnish to the Company such information regarding

itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request.

Each Investor by such Investor's acceptance of the Registrable Securities agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of the Registration Statement hereunder, unless such Investor has notified the Company of such Investor's election to exclude all of such Investor's Registrable Securities from the Registration Statement.

Each holder of the Registrable Securities agrees by acquisition of such Registrable Securities that, upon receipt of any notice from the Company of the existence of any fact of the kind described in Section 2(c)(ii), or notice of a stop order or suspension described in Section 2(c)(iii), such holder shall forthwith discontinue disposition of Registrable Securities and cease to use the Prospectus in use under such Registration Statement. The Company shall, as promptly as practicable, provide each holder with copies of the supplemented or amended Prospectus contemplated by Section 2(g), or advise the holders in writing that the use of the Prospectus may be resumed, and promptly provide each holder with copies of any additional or supplemental filings which are incorporated by reference in the Prospectus. If so directed by the Company, each such holder shall deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in such holder's possession, of the Prospectus covering such Registrable Securities current at the time of receipt of such notice.

3. REGISTRATION EXPENSES. All expenses incident to the Company's performance of or compliance with this Agreement shall be borne by the Company, regardless of whether a Registration Statement becomes effective, including without limitation:

(a) all registration and filing fees and expenses (including filings made with the NASD);

(b) fees and expenses of compliance with federal securities and state "blue sky" or securities laws;

(c) expenses of printing (including printing certificates for the Registrable Securities and Prospectuses), messenger and delivery services and telephone;

(d) all application and filing fees in connection with listing the Registrable Securities on a national securities exchange or automated quotation system pursuant to the requirements hereof;

(e) all fees and disbursements of counsel of the Company and independent certified public accountants of the Company (including the expenses of any special audit and "cold comfort" letters required by or incident to such performance); and

(f) any reasonable out-of-pocket expenses of the holders of the Registrable Securities (or the agents who manage their accounts); provided, however, that each Investor shall be responsible for paying the underwriting commissions or brokerage fees, and taxes of any

kind (including, without limitation, transfer taxes) applicable to any disposition, sale or transfer of the Registrable Securities and provided further that the Company shall not be responsible for any legal, accounting or other expenses incurred by the Investors in connection with the Registration Statement.

The Company shall, in any event, bear its internal expenses (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expense of any annual audit, rating agency fees and the fees and expenses of any Person, including special experts, retained by the Company.

In addition, notwithstanding anything to the contrary contained herein, the Company shall pay all of the Investors' costs and expenses (including reasonable legal fees) incurred in connection with the enforcement of the rights of the Investors hereunder.

4. PENALTY

In the event that the Registration Statement has not (i) been filed with the Commission within 20 days after the Closing Date or (ii) become effective within 120 days after such Closing Date (each such event referred to in clauses (i) and (ii), a "Registration Default"), for all or part of each thirty (30) day period (a "Penalty Period") during which the Registration Default remained uncured, the Company shall issue or pay, as applicable, to the Investors within three (3) Business Days of the end of each such Penalty Period, at (A) the Investor's sole election if the Market Value (as defined below) is $7.85 or less at the time of the payment of the penalty, and (B) at the Company's sole election if the Market Value is above $7.85 at the time of the payment of the penalty, either: (i) a number of additional shares of Common Stock equal to 1% of the Aggregate Purchase Price paid for all Registrable Securities purchased by all such Investors pursuant to the Purchase Agreement, divided by the Market Value (as defined hereafter), as of the last trading day of the Penalty Period, of a share of Common Stock (the "Penalty Shares") or (ii) a cash payment equal to the Market Value of the Penalty Shares; provided, however, that in no event will the total number of shares issued pursuant to this Agreement and the Purchase Agreement taken together exceed 19.9% of the total number of shares of Common Stock outstanding on the Closing Date (the "Maximum Percentage"), and if the total number of shares to be issued pursuant to such agreements exceeds the Maximum Percentage, the Company shall, in addition to issuing the number of Penalty Shares which can be issued up to the Maximum Percentage, pay the Investors a cash payment equal to the Market Value of the Penalty Shares which cannot be issued due to the limitations imposed by the Maximum Percentage requirement; and provided further, however, that in no event shall the total number of all payments under this Section (whether consisting of Penalty Shares or cash) exceed 8.0% of the Aggregate Purchase Price, with Penalty Shares valued as of the date of issuance as provided herein. For purposes of this Agreement, the "Market Value" of a share of Common Stock shall be the average of the high and low sales prices of the Common Stock on the NASDAQ National Market on the last trading day in the relevant Penalty Period.

5. INDEMNIFICATION.

(a) The Company agrees to indemnify and hold harmless each holder

of the Registrable Securities and each Person, if any, who controls such holder within the meaning of

Section 15 of the Securities Act or Section 20 of the Exchange Act from and against any and all losses, claims, damages, liabilities and expenses (including, without limiting the foregoing but subject to Section 5 (c),the reasonable legal and other expenses incurred in connection with any action, suit or proceeding or any claim asserted) arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in any Registration Statement or the Prospectus (as amended or supplemented if the Company shall have furnished any amendments or supplements thereto) or any preliminary prospectus, or arising out of or based upon any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, except insofar as such losses, claims, damages, liabilities or expenses are caused by an untrue statement or omission contained in information relating to such holder, furnished to the Company in writing by such holder expressly for use therein.

(b) As a condition to the inclusion of its Registrable Securities in any Registration Statement pursuant to this Agreement, each holder thereof shall furnish to the Company in writing, promptly after receipt of a request therefor, such information as the Company may reasonably request for use in connection with any Registration Statement, Prospectus or preliminary prospectus (including such completed and executed questionnaires as the Company may reasonably request) and agrees to indemnify and hold harmless, severally and not jointly, the Company and its directors, its officers who sign such Registration Statement, and any Person controlling the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the indemnity from the Company to each holder and Persons controlling such holder, but only to the extent of losses, claims, damages, liabilities or expenses caused by an untrue statement or an omission contained in information relating to such holder furnished in writing by such holder expressly for use in such Registration Statement or the Prospectus or any preliminary prospectus included therein, and of which none of the Company, its directors, officers or Affiliates has any actual or constructive knowledge independent of such holder; provided, however, that such holder of Registrable Securities shall not be liable in any such case to the extent that the holder has furnished in writing to the Company prior to the filing of any such Registration Statement, Prospectus or preliminary prospectus information expressly for use in such Registration Statement, Prospectus or preliminary prospectus which corrected or made not misleading information previously furnished to the Company, and the Company failed to include such information therein. In case any action shall be brought against the Company, any of its directors, any such officer, or any such controlling Person based on the Registration Statement, the Prospectus or any preliminary prospectus and in respect of which indemnity may be sought against one or more of the holders, such holders shall have the rights and duties given to the Company by Section 5(c) (except that if the Company as provided in Section 5(c) shall have assumed the defense thereof such holders shall not be required to do so, but may employ separate counsel therein and participate in the defense thereof but the fees and expenses of such counsel shall be at such holder's expense unless the conditions in clauses (i), (ii) or (iii) of Section 5(c) shall apply) and the Company and its directors, any such officers, and any such controlling Person shall have the rights and duties given to the holders by Section 5(c). In no event shall the aggregate liability of any selling holder hereunder, together with any liability for contribution under Section 5(d), be greater than the net proceeds (i.e., proceeds net of underwriting discounts, fees, commissions and any other expenses payable by such selling holder) received by such holder upon the sale of the Registrable Securities giving rise to such indemnification obligation.

(c) In case any action or proceeding (including any governmental or regulatory investigation or proceeding) shall be brought against any current or former holder of the Registrable Securities or any Person controlling such holder, with respect to which indemnity may be sought against the Company pursuant to Section 5(a), such holder or such Person controlling such holder shall promptly notify the Company in writing and the Company shall assume the defense thereof, including the employment of counsel reasonably satisfactory to such holder and payment of all fees and expenses relating thereto. Such holder and such Persons controlling such holder shall have the right to employ separate counsel in any such action or proceeding and participate in the defense thereof, but the fees and expenses of such counsel shall be at such holder's expense unless (i) the employment of such counsel has been specifically authorized in writing by the Company, (ii) the Company has not assumed the defense and employed counsel reasonably satisfactory to such holder within 15 days after notice of any such action or proceeding, or (iii) the named parties to any such action or proceeding(including any impleaded parties) include both such holder or any Person controlling such holder and the Company and such holder or any Person controlling such holder shall have been advised by such counsel that there may be one or more legal defenses available to such holder or Person controlling such holder that are different from or additional to those available to the Company and, in the reasonable opinion of counsel to such holder or Person controlling such holder, could not be asserted by the Company's counsel without creating a conflict of interest (in which case the Company shall not have the right to assume the defense of such action or proceeding on behalf of such holder or controlling Person, it being understood, however, that the Company shall not, in connection with any one such action or separate but substantially similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of more than one separate firm of attorneys (in addition to all local counsel which is necessary, in the good faith opinion of both counsel for the indemnifying party and counsel for the indemnified party in order to adequately represent the indemnified parties) for all such holders and controlling Persons, which firm shall be designated in writing by the holders of a majority of the Registrable Securities currently or formerly held by such holders and that all such fees and expenses shall be promptly reimbursed as they are incurred upon written request and presentation of invoices). The Company shall not be liable for any settlement of any such action effected without the written consent of the Company (which consent shall not be unreasonably withheld or delayed), but if settled with the written consent of the Company or if there is a final judgment for the plaintiff, the Company agrees to indemnify and hold harmless such holder and all Persons controlling such holder from and against any loss or liability by reason of such settlement or judgment. The Company shall not, without the prior written consent of the holder, effect any settlement of any pending or threatened proceeding in respect of which any holder or any Person controlling such holder is a party (or a potential party) and indemnity has been sought hereunder by such holder or any Person controlling such holder unless such settlement includes an unconditional release of such holder or such controlling Person from all liability on claims that are the subject matter of such proceeding.

(d) If the indemnification provided for in this Section 5 is unavailable to an indemnified party under paragraphs (a), (b) or (c) hereof in respect of any losses, claims, damages, liabilities or expenses referred to therein, then each indemnifying party, in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages, liabilities and expenses in such proportion as is appropriate to reflect the relative fault of the Company on the one hand and such

holders on the other hand in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative fault of the Company on the one hand and such holders on the other hand shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the Company on the one hand or by such holders on the other hand and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The amount paid or payable by an indemnified party as a result of the losses, claims, damages, liabilities or expenses shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim.

(e) The Company and the holders of the Registrable Securities agree that it would not be just and equitable if contribution pursuant to this Section 5 were determined by a pro rata allocation or by any other method of allocation that does not take account of the equitable considerations referred to in subsection (d) above. The amount paid or payable by an indemnified party as a result of the losses, claims, damages, liabilities and expenses referred to in subsection (d) above shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating any claim or defending any such action, suit or proceeding. Notwithstanding any other provision of this Agreement, no holder of the Registrable Securities shall be required to contribute an amount greater than the net proceeds received by such holder with respect to the sale of Registrable Securities giving rise to any indemnification or contribution obligation under this Section 5. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

6. RULE 144. The Company agrees with each holder of Registrable Securities to:

(a) comply with the requirements of Rule 144(c) under the Securities Act with respect to current public information about the Company;

(b) use its best efforts to file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time it is subject to such reporting requirements); and

(c) furnish to any holder of Registrable Securities upon request (i) a written statement by the Company as to its compliance with the requirements of said Rule 144(c) and the reporting requirements of the Securities Act and the Exchange Act (at any time it is subject to such reporting requirements), (ii) a copy of the most recent annual or quarterly report of the Company, and (iii) such other reports and documents of the Company as such holder may reasonably request to avail itself of any similar rule or regulation of the Commission allowing it to sell any such securities without registration.

7. INTERPRETATION OF AGREEMENT; DEFINITIONS.

(a) DEFINITIONS. Unless the context otherwise requires, the terms hereinafter set forth when used herein shall have the following meanings and the following definitions shall be equally applicable to both the singular and plural forms of any of the terms herein defined.

"AFFILIATE" means, as to any Person, a Person which directly or indirectly through one or more intermediaries controls, or is controlled by, or is under common control with, the first Person. The term "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a Person, whether through the ownership of voting stock, through an investment advisory or other fiduciary arrangement, by contract or otherwise, and the term "controlled" shall have a correlative meaning.

"AGGREGATE PURCHASE PRICE" means the aggregate price paid to the Company by the Investors for the Registrable Shares under the Purchase Agreement.

"AGREEMENT" means this Registration Rights Agreement and all Schedules hereto.

"BUSINESS DAY" means any day other than a Saturday, Sunday or other day on which banks in Boston are required by law to close or are customarily closed.

"CLOSING DATE" means the "Closing Date" under the Purchase Agreement.

"COMMISSION" means the Securities and Exchange Commission as from time to time constituted, created under the Exchange Act, or, if at any time after the execution of this Agreement such Commission is not existing and performing the duties now assigned to it under the Exchange Act, then the Person performing such duties at such time.

"COMMON STOCK" means any stock of any class of the Company which has no preference in respect of dividends or of amounts payable in the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company and which is not subject to redemption by the Company.

"COMPANY" has the meaning assigned in the first paragraph of this Agreement.

"EFFECTIVE DATE" means the date the Registration Statement is declared effective by the Commission.

"EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

"INVESTORS" means, collectively, the Persons listed on Schedule I, and any successors or permitted assignees of any of their rights hereunder that hold Registrable Securities.

"NASD" means National Association of Securities Dealers, Inc.

"OFFERING" means the sale of up to _____ shares of Common Stock pursuant to a Purchase Agreement dated July 13, 2000.

"PERSON" means any natural person, corporation, partnership, limited liability company, trust or unincorporated organization, incorporated government, government agency or political subdivision thereof.

"PROSPECTUS" means the prospectus included in a Registration Statement, as amended or supplemented by any prospectus supplement and by all other amendments thereto, including post-effective amendments, and all material incorporated by reference into such Prospectus.

"REGISTRABLE SECURITIES" means (a) all shares of Common Stock purchased in the Offering, (b) Penalty Shares, if any, and (c) any shares of capital stock issued or issuable, from time to time, upon any reclassification, share combination, share subdivision, stock split, share dividend, merger, consolidation or similar transaction or event or otherwise as a distribution on, in exchange for or with respect to any of the foregoing, in each case held at the relevant time by an Investor. As to any particular securities, such securities will cease to be Registrable Securities when (i) they have been transferred in a public offering registered under the Securities Act, (ii) they have been transferred in a sale made through a broker, dealer or market-maker pursuant to Rule 144 under the Securities Act or (iii) the holder thereof is able to sell all of such securities under Rule 144 under the Securities Act during any 90-day period without restriction (including without limitation, as to volume by the holder thereof).

"REGISTRATION PERIOD" means the period from and after the Effective Date until the time determined by Section 1(a)(ii) hereof.

"REGISTRATION STATEMENT" means any registration statement of the Company relating to the registration for resale of Registrable Securities, including any registration statement filed pursuant to the provisions of this Agreement, including the Prospectus included therein, all amendments and supplements thereto (including post-effective amendments) and all exhibits and material incorporated by reference therein.

"SECURITIES ACT" means the Securities Act of 1933, as amended.

(b) ACCOUNTING PRINCIPLES. Where the character or amount of any asset or liability or item of income or expense is required to be determined or any consolidation or other accounting computation is required to be made for the purposes of this Agreement, the same shall be done in accordance with the generally accepted accounting principles in effect from time to time, to the extent applicable, except where such principles are inconsistent with the express requirements of this Agreement including without limitation the definitions set out in Section 7.

(c) DIRECTLY OR INDIRECTLY. Where any provision in this Agreement refers to action to be taken by any Person, or which such Person is prohibited from taking, such provision shall be applicable whether the action in question is taken directly or indirectly by such Person.

8. MISCELLANEOUS.

(a) REMEDIES. Each holder of the Registrable Securities, in addition to being entitled to exercise all rights provided herein, and granted by law, including recovery of damages, shall be entitled to specific performance of its rights under this Agreement. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Agreement and hereby agrees to waive the defense in any action for specific performance that a remedy at law would be adequate.

(b) NO INCONSISTENT AGREEMENTS. The Company shall not, on or after the date of this Agreement, enter into any agreement with respect to its securities that is inconsistent with the rights granted to such holders of the Registrable Securities in this Agreement or otherwise conflicts with the provisions hereof. The rights granted to the holders hereunder do not in any way conflict with and are not inconsistent with the rights granted to the holders of the Company's securities under any other agreements.

(c) AMENDMENTS AND WAIVERS. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, and waivers or consents to departures from the provisions hereof may not be given without the written consent of the Company and each of the Investors.

(d) NOTICES. Any notices required or permitted to be given under the terms of this Agreement shall be in writing and shall be sent by mail, personal delivery, by telephone line facsimile transmission or courier and shall be effective five (5) days after being placed in the mail, if mailed, or upon receipt, if delivered personally, by telephone line facsimile transmission or by courier, in each case addressed to a party at such party's address (or telephone line facsimile transmission number) shown in the introductory paragraph or on the signature page of this Agreement or such other address (or telephone and facsimile transmission numbers) as a party shall have provided by notice to the other parties in accordance with this provision. In the case of any notice to the Company, such notice should be addressed to the Company at its address shown in the introductory paragraph of this Agreement, Attention: Dr. Una S. Ryan, Ph.D. (telephone and facsimile transmission numbers: (781) 433-3101, (781) 433-3191), and a copy shall also be given to: Goodwin, Procter & Hoar LLP, Attention: Stuart Cable, P.C., (telephone and facsimile transmission numbers: (617) 570-1322, (617) 523-1231), and in the case of any notice to the Purchasers, a copy shall be given to: PaineWebber, Attention: Legal Department (telephone and facsimile transmission numbers: Don Mittman, telephone: (212) 713- 4411, in each case with a copy to: Jeffrey Marcus, Morrison & Foerster LLP, telephone: (212) 468-8137, facsimile: (212) 468-7900.

(e) SUCCESSORS AND ASSIGNS. This Agreement shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the Investors, including without limitation and without the need for an express assignment, Affiliates of the Investors. The rights and obligations of an Investor under this Agreement shall be automatically assigned by such Investor to any transferee of all or any portion of such Investor's Registrable Securities who is a Permitted Transferee (as defined below); provided, however, that within a reasonable time after the transfer, (i) the Company is provided notice of the transfer including the name and address of the transferee and the number of Registrable Securities transferred; and (ii) that such transferee agrees in writing to be bound by the terms of this Agreement. (For purposes

of this "Agreement, a "Permitted Transferee" shall mean any Person who (a) is an "accredited investor," as that term is defined in Rule 501(a) of Regulation D and (b) is a transferee of the Registrable Securities as permitted under the securities laws of the United States). Upon any transfer permitted by this Section 8(e), the Company shall be obligated to such transferee to perform all of its covenants under this Agreement as if such transferee were an Investor.

(f) COUNTERPARTS. This Agreement may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

(g) GOVERNING LAW. THE CORPORATE LAW OF THE COMMONWEALTH OF MASSACHUSETTS SHALL GOVERN ALL ISSUES AND QUESTIONS CONCERNING THE RELATIVE RIGHTS AND OBLIGATIONS OF THE COMPANY AND ITS STOCKHOLDERS. ALL OTHER ISSUES AND QUESTIONS CONCERNING THE CONSTRUCTION, VALIDITY, ENFORCEMENT AND INTERPRETATION OF THIS AGREEMENT AND THE EXHIBITS AND SCHEDULES HERETO SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS, WITHOUT GIVING EFFECT TO THE CONFLICTS OF LAW PRINCIPLES THEREOF.

(h) SEVERABILITY. Should any part of this Agreement for any reason be declared invalid, such decision shall not affect the validity of any remaining portion, which remaining portion shall remain in force and effect as if this Agreement had been executed with the invalid portion thereof eliminated and it is hereby declared the intention of the parties hereto that they would have executed the remaining portion of this Agreement without including therein any such part, parts, or portion which may, for any reason, be hereafter declared invalid.

(i) CAPTIONS. The descriptive headings of the various Sections or parts of this Agreement are for convenience only and shall not affect the meaning or construction of any of the provisions hereof.

(j) WAIVER OF JURY TRIAL. EACH OF THE COMPANY AND THE INVESTORS WAIVES ANY RIGHT TO A TRIAL BY JURY IN ANY ACTION OR PROCEEDING TO ENFORCE OR DEFEND ANY RIGHTS UNDER THIS AGREEMENT OR UNDER ANY AMENDMENT, INSTRUMENT, DOCUMENT OR AGREEMENT DELIVERED OR WHICH MAY IN THE FUTURE BE DELIVERED IN CONNECTION HEREWITH OR ARISING FROM ANY RELATIONSHIP EXISTING IN CONNECTION WITH THIS AGREEMENT, AND AGREES THAT ANY SUCH ACTION OR PROCEEDING SHALL BE TRIED BEFORE A COURT AND NOT BEFORE A JURY.

(k) EFFECTIVENESS OF AGREEMENT. This Agreement shall become effective upon execution by the Company and delivery hereof by the Company to at least one Investor and the execution by such Investor and delivery hereof by such Investor to the Company, notwithstanding the fact that any other potential Investors listed in Schedule I have not so executed and delivered this Agreement.

(l) FINAL AGREEMENT. THIS WRITTEN AGREEMENT REPRESENTS THE FINAL AGREEMENT BETWEEN THE PARTIES AND MAY NOT BE CONTRADICTED BY EVIDENCE OF PRIOR, CONTEMPORANEOUS OR SUBSEQUENT ORAL AGREEMENTS OF THE PARTIES.

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IN WITNESS WHEREOF, each of the parties hereto has executed this Agreement, or caused this Agreement to be duly executed on its behalf, as of the date first written.

Avant Immunotherapeutics, Inc., a Delaware corporation

By: /s/ Una S. Ryan

Name: Una S. Ryan

Title: President and CEO

[Signatures of Investors are contained in Schedule I]

SCHEDULE I

INVESTORS

BAYSTAR CAPITAL L.P.

By: /s/ Steven Lamar

Name: Steven Lamar
Its Duly Authorized Signatory

BAYSTAR INTERNATIONAL

By: /s/ Steven Lamar

Name: Steven Lamar
Its Duly Authorized Signatory

CATALYST PARTNERS, L.P.

By: /s/ Alison Rosen

Name: Alison Rosen
Its Duly Authorized Signatory

CATALYST INTERNATIONAL, L.P.

By: /s/ Alison Rosen

Name: Alison Rosen
Its Duly Authorized Signatory

CLARION CAPITAL CORPORATION

By: /s/ Morton Cohen

Name: Morton Cohen
Its Duly Authorized Signatory

CLARION PARTNERS, L.P

By: /s/ Morton Cohen

Name: Morton Cohen
Its Duly Authorized Signatory

CLARION OFFSHORE FUND LTD.

By: /s/ Morton Cohen

Name: Morton Cohen
Its Duly Authorized Signatory

+

DRESDNER RCM BIOTECHNOLOGY FUND

By: /s/ Anthony Ain

Name: Anthony Ain
Its Duly Authorized Signatory

FRAMLINGTON HEALTH FUND

By: /s/ Anthony Milford

Name: Anthony Milford
Its Duly Authorized Signatory

MUNDER FRAMLINGTON HEALTHCARE FUND

By: /s/ Anthony Milford

Name: Anthony Milford
Its Duly Authorized Signatory

JALAA EQUITIES, LP

By: /s/ Jason Aryeh

Name: Jason Aryeh
Its Duly Authorized Signatory

HALIFAX FUND, L.P

By: /s/ Steven W. Weiner

Name: Steven W. Weiner
Its Duly Authorized Signatory

PICTET BIOTECH

By: /s/ Vincent Ossipow

Name: Vincent Ossipow
Its Duly Authorized Signatory

PICTET ASSET MANAGEMENT UK LTD.

For:
Pictet Biotech Fund (Genome)
By: /s/ Sam Perry

Name: Sam Perry
Its Duly Authorized Signatory

PETER SEARS

By: /s/ Peter Sears

Name: Peter Sears

NARRAGANSETT I, LP

By: /s/ Joseph L. Dowling III

Name: Joseph L. Dowling III
Its Duly Authorized Signatory

NARRAGANSETT OFFSHORE, LTD.

By: /s/ Joseph L. Dowling III

Name: Joseph L. Dowling III
Its Duly Authorized Signatory

REABOURNE LTD.

FINSBURY TECHNOLOGY TRUST

By: /s/ C.J. Edge

Name: C.J. Edge
Its Duly Authorized Signatory

CONSULTA TECHNOLOGY FUND

By: /s/ Barry Carroll

Name: Barry Carroll
Its Duly Authorized Signatory

PULSAR TECHNOLOGY FUND

By: /s/ Mr. Nitin Aggarwahl

Name: Mr. Nitin Aggarwahl
Its Duly Authorized Signatory

FGI BIOTECHNOLOGY FUND

By: /s/ Dr. Andrew Clark

Name: Dr. Andrew Clark
Its Duly Authorized Signatory