SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

AVANT IMMUNOTHERAPEUTICS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

13-3191702

(State of Incorporation)

(I.R.S. Employer Identification No.)

119 FOURTH AVENUE NEEDHAM, MASSACHUSETTS 02494 (781) 433-0771

(Address, Including Zip Code, of Principal Executive Offices)

AVANT IMMUNOTHERAPEUTICS, INC. 1999 STOCK OPTION AND INCENTIVE PLAN

(Full Title of the Plan)

Una S. Ryan, Ph.D.
President and Chief Executive Officer
AVANT Immunotherapeutics, Inc.
119 Fourth Avenue
Needham, Massachusetts 02494
(781) 433-0771

(Name, Address and Telephone Number, Including Area Code, of Agent for Service)

With copies to:

Stuart M. Cable, P.C.
Ettore A. Santucci, P.C.
Goodwin Procter LLP
Exchange Place
Boston, Massachusetts 02109-2881
(617) 570-1000

CALCULATION OF REGISTRATION FEE

Proposed Maximum Proposed Maximum Amount to be Offering Price Per **Aggregate Offering** Amount of Title of Securities to be Registered Share (3) Price (3) Registration Fee Registered (2) Common Stock, \$.001 par value (1) 1,500,000 \$ 2.538 \$3,570,000 \$ 452.32

- (1) This Registration Statement also relates to rights to purchase shares of Series C-1 Junior Participating Cumulative Preferred Stock of the Company which are attached to all shares of Common Stock issued, pursuant to the terms of the Company's Shareholder Rights Agreement dated November 10, 1994. Until the occurrence of certain prescribed events, the Rights are not exercisable, are evidenced by the certificates for the Common Stock and will be transferred with and only with such stock. Because no separate consideration is paid for the rights, the registration fee therefor is included in the fee for the Common Stock.
- (2) Additional shares available for issuance under the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan (the "Plan"); plus such indeterminate number of additional shares of common stock as may be required pursuant to the Plan in the event of a stock dividend, stock split, reverse stock split, recapitalization, forfeiture of stock under the Plan or other similar event.
- (3) Estimated solely for purposes of determining the registration fee pursuant to Rule 457(c) and (h) under the Securities Act of 1933, as amended, based on the average of the high and low sales prices on the Nasdaq National Market on July 19, 2004.

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

Pursuant to General Instruction E of Form S-8, AVANT Immunotherapeutics, Inc. (the "Registrant") hereby incorporates by reference the contents of the Registrant's Registration Statement on Form S-8 (No. 333-34780) as previously filed with the Securities and Exchange Commission on April 14, 2000. This Registration Statement is being filed to register an additional 1,500,000 shares of the Registrant's common stock, par value \$.001 per share, subject to issuance under the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan.

Additionally, the Registrant hereby incorporates by reference the documents listed below, which have previously been filed with the Commission.

- (a) The Registrant's Current Report on Form 8-K, filed on April 21, 2004.
- (b) The Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2004.
- (c) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2003.
- (d) The description of the Registrant's Common Stock contained in its Registration Statement on Form 8-A, filed with the Commission on September 22, 1986 under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any amendments or reports filed for the purpose of updating such description.
- (e) The description of the rights to purchase shares of the Registrant's Series C-1 Junior Participating Cumulative Preferred Stock contained in the Registrant's Registration Statement on Form 8-A, filed on November 14, 1994, and all amendments and reports updating such description.

In addition, all documents subsequently filed with the Commission by the Registrant pursuant to Sections 13(a) and 13(c), Section 14 and Section 15(d) of the Exchange Act prior to the filing of a post-effective amendment hereto that indicates that all securities offered hereunder have been sold or that deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

Item 8. Exhibits

The following is a complete list of exhibits filed or incorporated by reference as part of this Registration Statement.

Exhibit No.	Description
4.1	AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan (incorporated by reference to Exhibit A to the Registrant's Proxy Statement on Schedule 14A filed April 1, 1999)
4.2	First Amendment to AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan (incorporated by reference to Exhibit 10.18 of the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2001, filed March 27, 2002)
4.3	Second Amendment to AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan (incorporated by reference to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2003, filed March 4, 2004)
4.4	Shareholder Rights Agreement dated November 10, 1994 between the Registrant and State Street Bank and Trust Company as Rights Agent (incorporated by reference to Exhibit 4.1 of
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	the Registrant's Annual Report on Form 10-K filed March 28, 2000)
4.5	Amendment to Shareholder Rights Agreement between State Street Bank and Trust Company and AVANT Immunotherapeutics, Inc., dated as of December 17, 2001 (incorporated by reference to Exhibit 4.2 of the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2001)
*5.1	Opinion of Goodwin Procter LLP as to the legality of the securities being registered
*23.1	Consent of PricewaterhouseCoopers LLP, Independent Accountants
23.2	Consent of Goodwin Procter LLP (included in Exhibit 5.1 hereto)
24.1	Powers of Attorney (included on signature pages to this Registration Statement)
*Filed herewith	

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-8 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 this 23rd day of July, 2004.

AVANT Immunotherapeutics, Inc.

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

Una S. Ryan, Ph.D.,

President and Chief Executive
Officer

KNOW ALL BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Una S. Ryan, Ph.D. and Avery W. Catlin, and each of them singly, as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission, granting unto each said 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 in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

Signatures	Title	Date
/s/ J. Barrie Ward, Ph.D. J. Barrie Ward, Ph.D.	Chairman	July 23, 2004
/s/ Una S. Ryan, Ph.D. Una S. Ryan, Ph.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	July 23, 2004
/s/ Avery W. Catlin Avery W. Catlin	Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	July 23, 2004
/s/ Larry Ellberger Larry Ellberger	Director	July 23, 2004
Harry H. Penner, Jr.	Director	July 23, 2004
/s/ Peter A. Sears Peter A. Sears	Director	July 23, 2004
/s/ Karen Shoos Lipton Karen Shoos Lipton	Director	July 23, 2004
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EXHIBIT INDEX

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Filed herewith

GOODWIN PROCTER LLP EXCHANGE PLACE BOSTON, MA 02109

July 23, 2004

AVANT Immunotherapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494

Re: Registration Statement on Form S-8 for Additional Shares to be Issued Pursuant to AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan

Ladies and Gentlemen:

This opinion is delivered in our capacity as counsel to AVANT Immunotherapeutics, Inc. (the "Company") in connection with the preparation and filing with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act") of a Registration Statement on Form S-8 (the "Registration Statement") relating to 1,500,000 shares of the Company's common stock, par value \$.001 per share (the "Registered Shares"), which may be issued pursuant to the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan (the "Plan") and the First and Second Amendments to the Plan (the "Amendments").

As counsel for the Company, we have examined copies of the Plan and the Amendments, the Registration Statement, and the Company's Restated Articles of Organization and Amended and Restated By-laws, each as presently in effect, such records of the corporate proceedings of the Company as deemed to be material and such other certificates, receipts, records, and other documents as we have deemed necessary or appropriate 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 jurisdictions other than the federal laws of the United States of America, the laws of the Commonwealth of Massachusetts and the Delaware General Corporation Law, and also express no opinion with respect to the blue sky or securities laws of any state, including Massachusetts and Delaware.

Based on the foregoing, we are of the opinion that, when the Registered Shares are sold and paid for pursuant to the terms of the Plan, the Registered Shares will be duly authorized, validly issued, fully paid and non-assessable 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 and to the inclusion of this opinion as an exhibit to the Registration Statement.

Very truly yours,

/s/ GOODWIN PROCTER LLP

GOODWIN PROCTER LLP

CONSENT OF INDEPENDENT AUDITORS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of AVANT Immunotherapeutics, Inc. for its 1999 Stock Option and Incentive Plan of our report dated February 18, 2004 relating to the financial statements, which appears in AVANT Immunotherapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2003.

/s/ PricewaterhouseCoopers LLP				
PricewaterhouseCoopers LLP				
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Boston, Massachusetts				
July 22, 2004				