

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the registrant   
Filed by a party other than the registrant

Check the appropriate box:

- Preliminary proxy statement  Confidential, for use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive proxy statement
- Definitive additional materials
- Soliciting material pursuant to Rule 14a-11(c) or Rule 14a-12

AVANT IMMUNOTHERAPEUTICS, INC.  
(Name of Registrant as Specified in its Charter)

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(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

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(2) Aggregate number of securities to which transaction applies:

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(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

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(4) Proposed maximum aggregate value of transaction:

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(5) Total fee paid:

- Fee paid previously with preliminary materials:  
 Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

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(1) Amount Previously Paid:

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(2) Form, Schedule or Registration Statement No.:

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(3) Filing Party:

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(4) Date Filed:

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AVANT Immunotherapeutics, Inc.  
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Notice of Annual Meeting of Stockholders

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The Annual Meeting of Stockholders of AVANT Immunotherapeutics, Inc. (the "Company") will be held at 2:00 p.m. on May 6, 1999, at the Company's offices located at 119 Fourth Avenue, Needham, Massachusetts, 02494, for the following purposes:

1. To elect six Directors to serve until the 2000 Annual Meeting of Stockholders and until their successors are duly elected and qualified.
2. To consider and act upon a proposal to adopt the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan, replacing the Amended and Restated 1991 Stock Compensation Plan, as described in the attached Proxy Statement.
3. To transact any other business which may properly come before the meeting.

Stockholders of record at the close of business on March 22, 1999 will be entitled to notice of and to vote at the meeting. Stockholders who are unable to attend the meeting in person are requested to complete, sign, date and return the enclosed form of proxy in the envelope provided. No postage is required if mailed in the United States.

A copy of the Company's Annual Report to Stockholders for the fiscal year ended December 31, 1998 is being mailed to you with this Notice and Proxy Statement.

JAMES E. O'NEILL  
Secretary

Needham, Massachusetts  
March 31, 1999

YOUR VOTE IS IMPORTANT.

WHETHER OR NOT YOU PLAN TO ATTEND THE ANNUAL MEETING, YOU ARE URGED TO DATE, SIGN AND PROMPTLY RETURN YOUR PROXY SO THAT YOUR SHARES MAY BE VOTED IN ACCORDANCE WITH YOUR WISHES.

AVANT IMMUNOTHERAPEUTICS, INC.  
119 Fourth Avenue  
Needham, Massachusetts 02494

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PROXY STATEMENT  
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This Proxy Statement is furnished to the holders of Common Stock, par value \$.001 per share, ("Common Stock") of AVANT Immunotherapeutics, Inc. (the "Company") in connection with the solicitation of proxies by and on behalf of the Board of Directors of the Company for the 1999 Annual Meeting of Stockholders (the "Annual Meeting") to be held at the Company's offices located at 119 Fourth Avenue, Needham, Massachusetts on May 6, 1999, or at any adjournment thereof. The solicitation is made on behalf of the Board of Directors of the Company. This Proxy Statement and the accompanying Notice of Annual Meeting of Stockholders and Proxy Card are first being mailed to stockholders on or about March 31, 1999.

The purpose of the Annual Meeting is to (i) elect six Directors to serve until the 2000 Annual Meeting of Stockholders and until their successors are duly elected and qualified, (ii) consider and act upon a proposal to adopt the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan, replacing the Amended and Restated 1991 Stock Compensation Plan, and (iii) transact any other business which may properly come before the Annual Meeting. The Company is currently not aware of any other matters which will come before the Annual Meeting. If any other matters properly come before the Annual Meeting, the persons designated as proxies intend to vote in accordance with their best judgment on such matters. Shares represented by executed and unrevoked proxies will be voted FOR the proposal shown on the form of proxy unless otherwise indicated on the form of proxy.

Stockholders of record at the close of business on March 22, 1999 (the "Record Date") will be entitled to vote at the Annual Meeting. The Company had outstanding on the Record Date 42,528,765 shares of Common Stock, each of which is entitled to one vote upon each of the matters to be presented at the Annual Meeting. The presence of holders of a majority of issued and outstanding shares of Common Stock, whether in person or by proxy, will constitute a quorum at the Annual Meeting. Abstentions, votes withheld for Director nominees and "broker non-votes" (shares represented at the Annual Meeting which are held by a broker or nominee and as to which (i) instructions have not been received from the beneficial owner or the person entitled to vote such shares and (ii) the broker or nominee does not have discretionary voting power) shall be treated as shares that are present and entitled to vote with respect to matters presented at the Annual Meeting for purposes of determining whether a quorum is present. With respect to the election of Directors, the by-laws of the Company (the "By-Laws") provide that such election shall be determined by a plurality of votes cast; all other questions shall be decided by a majority of votes cast. Shares represented by a proxy that withholds authority to vote for a particular nominee or nominees and broker non-votes will have no effect on the outcome of the vote for the election of Directors.

Stockholders may revoke the authority granted by their execution of proxies at any time before the proxies are voted by filing with the Secretary of the Company a written revocation or duly executed proxy, bearing a later date, or by voting in person at the Annual Meeting. Proxies for the Annual Meeting are being solicited by the Board of Directors of the Company. Forms of proxies will be mailed to stockholders with the Proxy Statement on or about March 31, 1999. Proxies will be solicited chiefly by mail, but additional solicitation may be made by telephone or telecopy by the officers, regular employees or agents of the Company. All solicitation expenses, including costs of preparing, assembling and mailing the proxy material, will be borne by the Company.

PROPOSAL 1--ELECTION OF DIRECTORS

Six Directors, constituting the entire Board of Directors, are to be elected at the Annual Meeting. Each of the nominees listed below has consented to be nominated and to serve if elected. The Directors are elected by a plurality of the votes cast at the Annual Meeting. Unless otherwise specified, the enclosed proxy will be voted in favor of the nominees named below, all of whom are now Directors of the Company. In the event that a vacancy may occur during the year, such vacancy may be filled by the Board of Directors for the remainder of the full term. All nominees will be elected to serve until the next Annual Meeting of Stockholders and until their successors are duly elected

and qualified. In the event any of these nominees shall be unable to serve as a Director, the shares represented by the proxy will be voted for the person, if any, who is designated by the Board of Directors to replace the nominee.

The following table sets forth the nominees for the Board of Directors, their ages and the year in which each first became a Director.

Nominee	Age	Year First Became Director
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J. Barrie Ward, Ph.D.	60	1998
Una S. Ryan, Ph.D.	57	1996
Frederick W. Kyle	66	1998
John W. Littlechild	47	1998
Thomas R. Ostermueller	50	1994
Harry H. Penner, Jr.	53	1997

The following biographical descriptions set forth certain information with respect to the Nominees for election as Directors at the Annual Meeting, based on information furnished to the Company by each Nominee.

J. Barrie Ward, Ph.D. has served as Chairman of the Board of Directors of the Company since August 1998. Previously, he was Chairman of the Board of Directors and Chief Executive Officer of Virus Research Institute, Inc. ("VRI") from July 1994 to August 1998. From 1984 to 1994, Dr. Ward was Director of the Microbiology Division of Glaxo Research and Development Ltd.

Una S. Ryan, Ph.D. has been Chief Executive Officer of the Company since August 1996 and President, Chief Operating Officer and Director of the Company since May 1996. Dr. Ryan joined the Company as Vice President, Research and Chief Scientific Officer in May 1993. She is also Research Professor of Medicine at the Whitaker Cardiovascular Institute of the Boston University School of Medicine. Prior to joining the Company, Dr. Ryan was Director of Health Sciences at Monsanto Company from January 1990 to November 1992 and Research Professor of Surgery, Medicine and Cell Biology at Washington University School of Medicine from 1990 to 1993. Dr. Ryan is a member of the Governing Body of Biotechnology Industry Organization's (BIO) Emerging Companies Section and serves on the Board of the Massachusetts Biotechnology Council.

Frederick W. Kyle has been a Director of the Company since August 1998. He was a Director of VRI from July 1996 to August 1998. Mr. Kyle has been a consultant to companies in the healthcare field since January 1994. From December 1991 until January 1994 he was Senior Vice President of the American Red Cross. For eleven years prior to that he was with SmithKline Beecham Pharmaceuticals, most recently as President of Worldwide Pharmaceutical Operations and as a member of the board of directors of SmithKline Beecham plc. He is currently a director of Pharmaceutical Marketing Services, Inc. and Computerized Medical Systems, Inc.

John W. Littlechild has been general partner of HealthCare Partners II L.P. ("HCP II"), HealthCare Partners III L.P. ("HCP III"), and HealthCare Partners IV L.P. ("HCP IV"), the general partners, respectively, of each of HealthCare Ventures II L.P. ("HCV II"), HealthCare Ventures III L.P. ("HCV III"), and HealthCare Ventures IV L.P. ("HCV IV"), and Vice Chairman of HealthCare Ventures LLC ("HIC") since 1992. From 1984 to 1991 he was Senior Vice President of Advent International Corporation. Mr. Littlechild serves on the Board of Directors of various healthcare and biotechnology companies, including Orthofix International N.V. and Diacrin, Inc.

Thomas R. Ostermueller has been a Management Consultant with A.T. Kearney, Inc. since March 1998. Previously, he served as President, Chief Executive Officer and Director of V.I. Technologies, Inc. from February 1995 to September 1997, and Executive Vice President, Chief Operating Officer and member of the Board of Trustees of the New York Blood Center from February 1993 to 1995. He was Executive Vice President of the Mead Johnson Nutritional Group, Bristol-Myers Squibb from 1990 to 1993, and Vice President of Bristol-Myers from July 1988 until 1990.

Harry H. Penner, Jr. has been President, Chief Executive Officer and Director of Neurogen Corporation since December 1993. Previously, he served as Executive Vice President of Novo Nordisk A/S and President of Novo Nordisk of North America, Inc. from 1988 to 1993. From 1985 to 1988 he was Executive Vice President and General Counsel of Novo Nordisk A/S. He has served as Chairman of the Board of Directors for the Connecticut Technology



Council, Co-Chairman of Connecticut United for Research Excellence, and Director of the Connecticut Business and Industry Associates. He currently serves on the Boards of Genaissance Pharmaceuticals, Inc. and PRA International, Inc.

The Board of Directors has an Audit Committee and a Compensation Committee. The members of the Audit Committee were Patrick C. Kung and Harry H. Penner until the acquisition of VRI in August 1998. The members of the Audit Committee for the remainder of 1998 were Harry H. Penner, Jr. and Frederick W. Kyle. The primary function of the Audit Committee is to review the scope and results of the Company's annual audit, the fee charged by the Company's independent accountants and matters relating to internal control procedures and systems.

The members of the Compensation Committee were Thomas R. Ostermueller and Ronald M. Urvater until the acquisition of VRI in August 1998. The members of the Compensation Committee for the remainder of 1998 were Thomas R. Ostermueller and John W. Littlechild. The primary function of the Compensation Committee is to assist the Board in the establishment of compensation for the Chief Executive Officer and, upon her recommendation, to approve the compensation of other officers and senior employees and to approve certain other personnel and employee benefit matters.

During the year ended December 31, 1998, the Board of Directors held twelve (12) meetings, the Audit Committee held two (2) meetings, and the Compensation Committee held two (2) meetings. Each Director attended at least 75% of the meetings held by the Board and the Board committee on which he or she served during the period he or she was a Director.

#### Director Compensation

Directors who are not employees of the Company are each entitled to receive a retainer fee of \$5,000 each fiscal year. Each Board committee Chairman receives an additional retainer fee of \$5,000. In addition, each non-employee Director is entitled to receive \$1,000 for attendance at each meeting of the Board of Directors and \$500 for attendance at each meeting of a Board committee. The Company's Amended and Restated 1991 Stock Compensation Plan provides for annual non-discretionary grants to each non-employee Director of an option to purchase 5,000 shares of Common Stock with vesting after one year, a ten year term and with an exercise price equal to the fair market value of the Common Stock on the day of grant. As of the Record Date, the current non-employee Directors had the following stock options outstanding: Frederick W. Kyle--18,600; John W. Littlechild--0; Thomas R. Ostermueller--42,500; Harry H. Penner, Jr.--30,000.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's officers and directors, and persons who are beneficial owners of more than 10% of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the SEC. Officers, directors and greater than 10% beneficial owners are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file. To the Company's knowledge, based solely on review of the copies of such reports furnished to the Company, and written representations that no other reports were required during the fiscal year ended December 31, 1998, all Section 16(a) filing requirements applicable to such persons were satisfied.

#### Certain Relationships and Related Transactions

Mr. Littlechild, a Director of the Company since 1998 and current nominee for Director, is a general partner of HCP II, HCP III and HCP IV. Those entities are the general partners of HCV II, HCV III and HCV IV, respectively, which in the aggregate acquired greater than 5% of the Company's outstanding Common Stock upon the closing of the Company's acquisition of Virus Research Institute, Inc. ("VRI"), on August 21, 1998 when the stock of VRI held by them was exchanged for Common Stock of the Company. See "Beneficial Ownership of Common Stock." HIC is the management company for HCV II, HCV III and HCV IV. Mr. Littlechild is an officer of HIC.

MANAGEMENT

Executive Officers

The following persons are executive officers of the Company. Officers are elected annually by the Board of Directors until their successors are duly elected and qualified.

Name of Individual -----	Age ---	Position and Offices -----
Una S. Ryan, Ph.D. ....	57	President and Chief Executive Officer
Thomas R. Fuerst, Ph.D. ....	42	Vice President, Corporate Development
James L. Levin, D.V.M. ....	44	Vice President, Operations
Henry C. Marsh, Jr., Ph.D. ....	48	Vice President, Research
Bryan E. Roberts, D. Phil. ....	51	Executive Vice President

For a biographical summary of Dr. Ryan, see "Election of Directors."

Thomas R. Fuerst, Ph.D., M.B.A. joined AVANT in July 1998. Prior to joining the Company, he was co-founder, President and Director of Research at Genetex, Inc., a San Antonio-based, privately held company with interests in cancer prevention and diagnosis. From 1993 to 1995, Dr. Fuerst served as Vice President and General Manager of the San Antonio division of Genelabs Technologies, Inc. From 1988 to 1993, he was Director of Molecular Genetics at MedImmune, Inc. Prior to entering the biotechnology field, he was senior fellow in the Laboratory of Viral Diseases at the National Institutes of Health.

James L. Levin, D.V.M. joined the Company as Director of Pharmaceutical Evaluation in April 1992. Dr. Levin has been Vice President, Operations since August 1998 and served as Vice President, Development from December 1995 until August 1998. Prior to joining the Company, Dr. Levin was Vice President, Technical Operations for TSI Mason Laboratories in Worcester. Dr. Levin received a D.V.M. from Tufts University School of Veterinary Medicine and an MS in pharmacology from Tulane University. Dr. Levin is also an Adjunct Assistant Professor in the Department of Comparative Medicine at Tufts University School of Veterinary Medicine, as well as member of the Massachusetts Society for Medical Research.

Henry C. Marsh, Jr., Ph.D. joined the Company as Senior Scientist in 1986 and has been Vice President, Research since May 1998. Prior to joining the Company, he was employed as a scientist at Abbott laboratories of North Chicago and the Research Triangle Institute in North Carolina.

Bryan E. Roberts, D. Phil. has been Executive Vice President of the Company since August 1998. From 1991 to 1998, Dr. Roberts held a number of positions at Virus Research Institute, Inc., most recently as Executive Vice President. From 1984 to 1990, Dr. Roberts was the Research Director at Applied Bio Technology, Inc. Dr. Roberts was an Associate Professor of Biological Chemistry at the Harvard Medical School from 1978 to 1986.

BENEFICIAL OWNERSHIP OF COMMON STOCK

The following table sets forth information as of the Record Date regarding Common Stock ownership by (i) each person known by the Company to beneficially own more than 5% of the Company's outstanding Common Stock as of December 31, 1998, and (ii) by each Director and nominee for Director, named executive officer, and by all Directors and executive officers as a group.

Name and Address of Beneficial Owners	Amount and Nature of Beneficial Ownership(1)	Percentage of Common Stock(2)
J. Barrie Ward, Ph.D. .... AVANT Immunotherapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494	601,364(3)	*
Una S. Ryan, Ph.D. .... AVANT Immunotherapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494	307,345(4)	*
Frederick W. Kyle ..... 1900 Rittenhouse Square, 15B Philadelphia, Pennsylvania 19103	21,000(5)	*
John W. Littlechild ..... HealthCare Ventures II, LP 44 Nassau Street Princeton, New Jersey 08542	4,977,833(6)	10.6%
Thomas R. Ostermueller ..... A.T. Kearney, Inc. 153 East 53rd Street New York, New York 10022	45,000(7)	*
Harry H. Penner, Jr. .... Neurogen Corporation 35 Northeast Industrial Road Branford, Connecticut 06405	35,000(8)	*
James L. Levin, D.V.M. .... AVANT Immunotherapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494	84,357(9)	*
Henry C. Marsh, Jr., Ph. D. .... AVANT Immunotherapeutics, Inc. 119 Fourth Avenue Needham, Massachusetts 02494	62,389(10)	*
All Directors and executive officers as a group ..... (Consisting of 10 persons)	6,393,979(11)	13.7%

\* Less than 1%.

- (1) Unless otherwise indicated, the persons shown have sole voting and investment power over the shares listed.
- (2) Common Stock includes all outstanding Common Stock plus, as required for the purpose of determining beneficial ownership (in accordance with Rule 13d-3(d)(1) of the Securities Exchange Act of 1934, as amended), all Common Stock subject to any right of acquisition, through exercise or conversion of any security, within 60 days of the Record Date.
- (3) Includes 560,974 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date and 4,616 shares issuable with respect to immediately exercisable warrants.
- (4) Includes 275,345 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date.





- (5) Consists of 18,600 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date and 2,400 shares issuable with respect to immediately exercisable warrants.
- (6) In an amended filing on Schedule 13G under the Exchange Act, filed jointly by HCV II, HCP II, HCV III, HCP III, HCV IV, HCP IV, John W. Littlechild, James H. Cavanaugh, Ph.D., Harold R. Werner, William Crouse and Mark Leschly, Messrs. Littlechild, Cavanaugh, Werner and Crouse reported that as of December 31, 1998, they each had beneficial ownership with respect to 4,966,714 of such shares, consisting of 4,322,757 shares of Common Stock and immediately exercisable warrants to purchase 643,957 shares of Common Stock, and shared voting and dispositive power with respect to those 4,966,714 shares, Mr. Leschly reported that he had beneficial ownership of 2,648,008 of such shares, consisting of 2,269,046 shares of Common Stock and immediately exercisable warrants to purchase 378,962 shares of Common Stock, and shared voting and dispositive power with respect to those 2,269,046 shares, HCV II and HCP II reported that they each had beneficial ownership with respect to 2,318,706 of such shares, consisting of 2,053,711 shares of Common Stock and immediately exercisable warrants to purchase 264,995 shares of Common Stock, and shared voting and dispositive power with respect to those 2,318,706 shares, HCV III and HCP III reported that they each had beneficial ownership with respect to 2,046,908 of such shares, consisting of 1,753,971 shares of Common Stock and immediately exercisable warrants to purchase 292,937 shares of Common Stock, and shared voting and dispositive power with respect to those 2,046,908 shares, and HCV IV and HCP IV reported that they each had beneficial ownership with respect to 601,099 of such shares, consisting of 515,074 shares of Common Stock and immediately exercisable warrants to purchase 86,025 shares of Common Stock, and shared voting and dispositive power with respect to those 601,099 shares. Messrs. Littlechild, Cavanaugh, Werner and Crouse are general partners of HCP II, which is the general partner of HCV II. Messrs. Littlechild, Cavanaugh, Werner, Crouse and Leschly are general partners of each of HCP III and HCP IV, which are the general partners of HCV III and HCV IV, respectively.
- (7) Includes 42,500 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date.
- (8) Includes 30,000 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date.
- (9) Includes 83,857 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date.
- (10) Includes 57,904 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date.
- (11) Includes 1,267,519 shares of Common Stock issuable upon exercise of options which are vested or will vest within 60 days of the Record Date and 668,875 shares issuable with respect to immediately exercisable warrants.

Summary Compensation Table

The following table shows, for the fiscal years ended December 31, 1998, December 31, 1997 and December 31, 1996, the cash compensation paid by the Company, as well as other compensation paid or accrued for these fiscal years, to the Chief Executive Officer and the three other most highly compensated officers whose total compensation for 1998 equaled or exceeded \$100,000.

Name and Principal Position	Year	Annual Compensation		Long-Term Compensation	
		Salary (\$)	Bonus (\$)	Awards	
				Securities Underlying Options (#)	All Other Compensation(1) (\$)
Una S. Ryan, Ph.D. President and Chief Executive Officer	1998	263,194	--	150,000	995
	1997	253,026	37,440	220,000	87,864(2)
	1996	212,347	21,521	100,000	48,546(2)
Norman W. Gorin Vice President, Finance and Chief Financial Officer	1998	148,420	--	24,000	41,448(3)
	1997	177,923	22,500	10,000	879
	1996	103,896	8,687	100,000	--
James L. Levin, D.V.M. Vice President, Development	1998	167,786	--	34,000	1,425
	1997	154,177	15,912	8,000	1,419
	1996	143,456	10,199	--	1,471
Henry C. Marsh, Jr., Ph.D. Vice President, Research	1998	138,865	--	39,000	1,250
	1997	124,715	9,579	13,000	1,149
	1996	122,621	6,143	5,000	1,226

(1) Includes only the Company's matching cash contribution to the 401(k) Savings Plan of each named executive officer, with the exception of the amounts provided for Dr. Ryan in 1997 and 1996 which also include reimbursement for relocation costs (see Footnote 2) and the amount paid to Mr. Gorin in connection with his departure from the Company (see Footnote 3). Premiums paid for life insurance under the Company's nondiscriminatory group plan are not included.

(2) Includes \$47,185 and \$86,921 received in 1996 and 1997, respectively, as reimbursement for costs incurred by Dr. Ryan as a result of her relocation in 1993. Such amounts were received pursuant to an employment agreement between the Company and Dr. Ryan which does not require the Company to make further payments for Dr. Ryan's relocation costs.

(3) Amount includes \$39,964 received subsequent to his departure from the Company pursuant to an employment agreement between the Company and Mr. Gorin. See "Employment Contract, Termination of Employment and Change-of-Control Arrangements".

Options Granted in Last Fiscal Year

The following table sets forth each grant of stock options made during the 1998 fiscal year to each of the executive officers named in the Summary Compensation Table above:

Individual Grants					Potential Realizable Value at Assumed Annual Rates of Price Appreciation for Option Term
Number of Securities Underlying Options	Percent of Total Options Granted to Employees in	Exercise Price	Expiration		

	Granted (#)	Fiscal Year (1)	(\$/Sh)(2)	Date	5% (\$)	10% (\$)
Una S. Ryan, Ph.D.	100,000	16.4%	1.9688	02/09/08	123,817	313,776
Norman W. Gorin	24,000	3.9%	1.9688	02/09/08	29,716	75,306
James L. Levin, D.V.M.	24,000	3.9%	1.9688	02/09/08	29,716	75,306
	10,000	1.6%	1.6720	12/09/08	10,515	26,647
Henry C. Marsh, Jr., Ph.D.	24,000	3.9%	1.9688	02/09/08	29,716	75,306
	15,000	2.5%	1.6720	12/09/08	15,773	39,971

(1) During 1998, a total of 610,750 options were granted to the Company's employees. The percentages were calculated as if those options granted in 1998 which were subsequently canceled remained outstanding as of the end of the 1998. For a description of each option grant, see "Report of the Compensation Committee."

(2) Equal to the closing market price of the Common stock on the grant date.

#### Aggregated Option Exercises in Last Fiscal Year and Fiscal Year End Option Values

The following table sets forth, for each of the executive officers named in the Summary Compensation Table above, the shares of Common Stock acquired and the value realized in each exercise of stock options during the 1998 fiscal year and the fiscal year end number and value of unexercised options:

Name	Shares Acquired on Exercise (#)	Value Realized (\$)	Number of Securities Underlying Unexercised Options at Fiscal Year End (#)		Value of Unexercised In-the-Money Options at Fiscal Year End (1) (\$)	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Una S. Ryan, Ph.D.	5,000	4,835	220,345	260,000	3,905	11,715
Norman W. Gorin	--	--	45,000	--	--	--
James L. Levin, D.V.M.	--	--	75,857	47,500	--	780
Henry C. Marsh, Jr., Ph. D.	--	--	47,404	53,750	--	1,170

(1) Based on the \$1.75 per share closing price of the Company's Common Stock on December 31, 1998.

#### Employment Contracts, Termination of Employment and Change-of-Control Arrangements

Dr. Ryan entered into an agreement with the Company on August 20, 1998 providing for an annual base salary of at least \$259,584 and under which, in the event that she terminates her employment for Good Reason (as defined in the agreement) within one year of a Change in Control (as defined in the Company's 1991 Stock Compensation Plan) or she is terminated by the Company other than for Cause (as defined by the agreement), she is eligible for a lump sum payment of one year's salary, at the rate then in effect, and continuation of health insurance benefits for a period of up to twelve (12) months.

Mr. Gorin entered into an agreement with the Company on May 28, 1996 under which he was eligible for continuation of salary and health insurance benefits for a period of up to twelve (12) months and outplacement services for a period of up to six (6) months or a maximum amount of \$7,500, in the event that he terminated his employment for Good Reason (as defined in the agreement) or he was terminated by the Company other than for Cause (as defined by the agreement). Mr. Gorin's employment with the Company terminated on October 15, 1998 and, in accordance with the above mentioned agreement, he received continuation of salary payments totaling \$39,964 in 1998.

Dr. Levin has an agreement with the Company under which he is eligible for a severance payment of one year's base salary, continuation of health insurance benefits and 100% vesting of all stock option grants in the event of his termination following a Change-of-Control, as defined in the Company's 1991 Stock Compensation Plan.

#### Compensation Committee Interlocks and Insider Participation

The Compensation Committee of the Board of Directors was composed of two non-employee Directors during the year, Messrs. Thomas Ostermueller and Ronald Urvater, until Mr. Urvater's resignation from the Board. In August 1998, Mr. John W. Littlechild was appointed to the Committee. None of these Compensation Committee members has been an officer or employee of the Company. No Compensation Committee interlocks between the Company and another entity exist.

#### Report of the Compensation Committee

The Compensation Committee of the Board of Directors (the "Committee"), which is comprised of non-employee Directors, is responsible for establishing and administering the policies governing the compensation of the Company's

employees, including salary, bonus and stock option grants. The policy of the Committee is to compensate the Company's employees with competitive salaries based on their level of experience and job performance. All permanent employees of the Company, including executive officers, are eligible for annual bonus awards based on achievement of the Company's strategic corporate goals, and participation in the Company's stock option pro-

gram. The bonus awards and stock option grants are made in accordance with the Company's Performance Plan and Amended and Restated 1991 Stock Compensation Plan. The Committee is also responsible for the administration of the Company's 1994 Employee Stock Purchase Plan, in which employees participate on a voluntary basis.

In order to both attract and retain experienced and qualified executives to manage the Company, the Committee's policy on executive compensation is to (i) pay salaries which are competitive with the salaries of executives in comparable positions in the biotechnology industry, and (ii) allow for additional compensation upon achievement of goals under the Performance Plan and through the appreciation of stock-based incentive awards. This policy is designed to have a significant portion of each executive's total compensation be tied to the Company's progress in order to incentivize the executive to fully dedicate himself or herself to achievement of corporate goals, and to align the executive's interest with those of the Company's stockholders through equity incentive compensation.

Each executive officer (except the Chief Executive Officer whose performance is reviewed by the Committee) has an annual performance review with the Chief Executive Officer who makes recommendations on salary increases, promotions and stock option grants to the Compensation Committee. The recommended salary increases are based on the average salary increases expected in the biotechnology industry in the Boston, Massachusetts area, with the salaries in 1998 either at or slightly above the average of the salaries paid to persons in comparable positions using an independently prepared 1998 employee compensation survey of approximately 400 biotechnology companies.

The bonus award is based on achievement of the Company's strategic goals which are set at the beginning of each fiscal year and measured against performance at the end of the year by the Committee in accordance with the Performance Plan. For 1998 two sets of goals were applicable to all employees, including the executive officers: (i) overall corporate goals and (ii) goals applicable to the therapeutic programs. Both sets of goals were allocated between specific product and financial performance targets. The Compensation Committee determined that, based on the Company's performance compared to the stated goals, no cash payout would be made under the Performance Plan for 1998. In 1998, the stock option awards for the executive officers other than the Chief Executive Officer consisted of grants made in conjunction with a review of the executives' performance during the year. The Compensation Committee believes the number of underlying shares are consistent with the stock option grant practices of other companies in the biotechnology industry.

Dr. Una Ryan, the Company's President and Chief Executive Officer, received a salary increase of 4% in 1998. Dr. Ryan's current base salary, which reflects the salary increase, is within the range of base salaries paid to other Chief Executive Officers in similar sized, publicly traded companies in the biotechnology industry, based on the previously referenced 1998 employee compensation survey. As discussed above, the Compensation Committee determined that no cash payout would be made under the Performance Plan for 1998.

On February 9, 1998, Dr. Ryan was granted an option to purchase 100,000 shares of Common Stock at an exercise price of \$1.97. These options vest over four years and have a ten year term. Dr. Ryan was granted a performance share award on February 9, 1998, which provided the option to purchase up to 100,000 shares of Common Stock at an exercise price of \$1.97 conditional upon the achievement of certain specified performance goals. As a result of meeting certain of the specified performance goals, Dr. Ryan was actually granted 50,000 of such options. The performance share award units vest over four years, beginning January 1, 1999. On February 9, 1998, Mr. Gorin, Dr. Levin and Dr. Marsh were each granted an option to purchase 24,000 shares of Common Stock at an exercise price of \$1.97 and on December 9, 1998, Dr. Levin and Dr. Marsh were granted an option to purchase 10,000 shares of Common Stock and 15,000 shares of Common Stock, respectively, at an exercise price of \$1.67. These options vest over four years and have a ten year term.

Compensation Committee

THOMAS OSTERMUELLER, Chairman  
JOHN W. LITTLECHILD

## Stock Performance Graph

The graph below represents a comparison of the cumulative shareholder return on the Common Stock for the Company's last five fiscal years, including the fiscal year ended December 31, 1998, with the cumulative total stockholder return of the Nasdaq Stock Market (U.S.) Index and Nasdaq Pharmaceutical Stock Index (which is made up of companies quoted on the Nasdaq National Market whose Primary Industrial Classification Code is 283, Pharmaceutical Companies). The graph assumes an investment of \$100 made on December 31, 1993 in the Company's Common Stock and in the two indexes.

[Line representation of graph]

	12/31/93	12/30/94	12/29/95	12/31/96	12/31/97	12/31/98
AVANT Immunotherapeutics, Inc.	\$100	\$32	\$ 40	\$ 21	\$ 31	\$ 23
Nasdaq Stock Market (U.S.) Index	\$100	\$98	\$138	\$170	\$209	\$293
Nasdaq Pharmaceutical Stock Index	\$100	\$89	\$138	\$138	\$143	\$183



## PROPOSAL 2

### PROPOSAL TO APPROVE 1999 STOCK OPTION AND INCENTIVE PLAN

#### Proposal

The Board of Directors has adopted the 1999 Stock Option and Incentive Plan (the "1999 Plan") for Directors, officers, employees and other key persons of the Company and its subsidiaries, subject to the approval of the 1999 Plan by the stockholders.

The 1999 Plan is administered by the Compensation Committee of the Board of Directors (the "Committee"). The Committee, at its discretion, may grant a variety of stock incentive awards based on the Common Stock of the Company. Awards under the 1999 Plan include stock options (both incentive options and non-qualified options), stock appreciation rights, restricted stock, deferred stock, performance shares, unrestricted stock and dividend equivalent rights. These awards are described in greater detail below.

Currently, the Company may issue up to 941,898 shares of Common Stock under the Amended and Restated 1991 Stock Compensation Plan (the "1991 Plan"). If the 1999 Plan is approved by stockholders, the shares available for grant under the 1991 Plan will be canceled and that same number of shares, plus an additional 1,058,102 shares will be issuable under the 1999 Plan. Accordingly, subject to adjustment for stock splits, stock dividends and similar events, the total number of shares of Common Stock that can be issued under the 1999 Plan is 2,000,000 shares, of which no more than 500,000 shares will be available for grants in the form of restricted stock, performance shares or unrestricted stock. Based solely upon the closing price of the Common Stock as reported by Nasdaq on March 22, 1999, the maximum aggregate market value of the securities to be issued under the 1999 Plan would be \$2,625,000. The shares issued by the Company under the 1999 Plan may be authorized but unissued shares, or shares reacquired by the Company. To the extent that awards under the 1999 Plan or the 1991 Plan do not vest or otherwise are forfeited or reacquired by the Company, the shares of Common Stock represented by such awards may be the subject of subsequent awards under the 1999 Plan.

To ensure that certain awards (e.g., stock options, stock appreciation rights, restricted stock, performance shares, and deferred stock) under the 1999 Stock Plan qualify as "performance-based compensation" under Section 163(m) of the Code, the 1999 Stock Plan provides that the Committee may require that the vesting of such awards be conditioned on the satisfaction of performance criteria which may include any or all of the following: (i) the Company's return on equity, assets, capital or investment, (ii) pre-tax or after-tax profit levels of the Company or any Subsidiary, a division, an operating unit or a business segment of the Company, or any combination of the foregoing; (iii) cash flow, funds from operations, year-end cash and equivalents balance or similar measure; (iv) total shareholder return; (v) changes in the market price of the Stock; (vi) sales or market share; (vii) earnings per share; (viii) partnerships, collaborations, joint ventures, alliances and similar arrangements involving the Company; (ix) mergers, acquisitions and business combinations of or by the Company; or (x) the Company's rights to intellectual property and scientific discoveries. The Committee will select the particular performance criteria within 90 days following the commencement of a performance cycle. To satisfy the requirements of Section 162(m) of the Code, stock options and stock appreciation rights with respect to no more than 500,000 shares of Common Stock (subject to adjustment for stock splits and similar events) may be granted to any one individual during any one-calendar-year period. In addition, the maximum award of restricted stock, performance shares or deferred stock (or combination thereof) for any one individual that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code will not exceed 250,000 shares of Common Stock (subject to adjustment for stock splits and similar events) for any performance cycle.

#### Recommendation

The Board of Directors believes that stock options and other stock-based incentive awards can play an important role in the success of the Company by encouraging and enabling the officers and other employees of the Company and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. The Board of Directors anticipates that providing such persons with a direct stake in the Company will assure a closer identification of the interests of par-

ticipants in the 1999 Plan with those of the Company, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

The Board of Directors believes that the proposed 1999 Plan, which provides for a greater range of stock-based incentive awards and permits greater flexibility in the terms of such awards than the 1991 Plan, will help the Company to achieve its goals by keeping the Company's incentive compensation program dynamic and competitive with those of other companies. Accordingly, the Board of Directors believes that the 1999 Plan is in the best interests of the Company and its stockholders and recommends that the stockholders approve the 1999 Plan.

The Board of Directors recommends that the 1999 Plan be approved, and therefore recommends a vote FOR this proposal.

#### Summary of the 1999 Plan

The following description of certain features of the 1999 Plan is intended to be a summary only. The summary is qualified in its entirety by the full text of the 1999 Plan which is attached hereto as Exhibit A.

**Plan Administration; Eligibility.** The 1999 Plan may be administered by the Board or a Committee of not fewer than two non-employee directors.

The Committee has full power to select, from among those eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the 1999 Plan. The Committee may permit Common Stock, and other amounts payable pursuant to an award, to be deferred. In such instances, the Committee may permit interest, dividend or deemed dividends to be credited to the amount of deferrals.

Persons eligible to participate in the 1999 Plan will be those employees and other key persons, such as consultants and prospective employees, of the Company and its subsidiaries who are responsible for or contribute to the management, growth or profitability of the Company and its subsidiaries, as selected from time to time by the Committee. Directors of the Company who are not employed by the Company or its subsidiaries ("Independent Directors") will also be eligible for certain awards under the 1999 Plan.

**Stock Options.** The 1999 Plan permits the granting of (i) options to purchase Common Stock intended to qualify as incentive stock options ("Incentive Options") under Section 422 of the Code and (ii) options that do not so qualify ("Non-Qualified Options"). The exercise price of each option will be determined by the Committee but generally may not be less than 100% of the fair market value of the Common Stock on the date of grant. However, employees participating in the 1999 Plan may elect, with the consent of the Committee, to receive discounted Non-Qualified Options in lieu of cash bonuses. In the case of such grants, the option exercise price may be less than the fair market value of the Common Stock on the date of grant. The exercise price of an option may not be reduced after the date of grant without the prior approval of the stockholders, other than to appropriately reflect changes in the capital structure of the Company.

The term of each option will be fixed by the Committee and may not exceed ten years from the date of grant. The Committee will determine at what time or times each option may be exercised and, subject to the provisions of the 1999 Plan, the period of time, if any, after retirement, death, disability or termination of employment during which options may be exercised. Options may be made exercisable in installments, and the exercisability of options may be accelerated by the Committee in limited circumstances.

Upon exercise of options, the option exercise price must be paid in full either in cash or by certified or bank check or other instrument acceptable to the Committee or, if the Committee so permits, by delivery (or attestation to the ownership) of shares of Common Stock which are not subject to any restrictions imposed by the Company and which have been held by the optionees for at least six months or which were purchased in the open market by the optionee. The exercise price may also be delivered to the Company by a broker pursuant to irrevocable instructions to the broker from the optionee. If permitted by the Board, the exercise price may also be paid with a promissory note of the optionee.

At the discretion of the Committee, stock options granted under the 1999 Plan may include a "re-load" feature pursuant to which an optionee exercising an option by the delivery of shares of Common Stock would automatically be granted an additional stock option (with an exercise price equal to the fair market value of the Common Stock



of the date the additional stock option is granted) to purchase that number of shares of Common Stock equal to the number delivered to exercise the original stock option. The purpose of this feature is to enable participants to maintain any equity interest in the Company without dilution.

To qualify as Incentive Options, options must meet additional Federal tax requirements, including limits on the value of shares subject to Incentive Options which first become exercisable in any one calendar year, and a shorter term and higher minimum exercise price in the case of certain large stockholders.

**Stock Options Granted to Independent Directors.** The 1999 Plan provides for the automatic grant of Non-Qualified Options to Independent Directors. Each Independent Director who is serving as a Director of the Company on the fifth business day after each annual meeting of shareholders, beginning with the 1999 annual meeting, will automatically be granted on such day a Non-Qualified Option to acquire 10,000 shares of Common Stock. The exercise price of each such Non-Qualified Option is the fair market value of the Common Stock on the date of grant. Such Non-Qualified Option may not be exercised before the first anniversary of the date of grant, except in the case of death or disability. The Committee may grant additional Non-Qualified Options to Independent Directors.

**Stock Appreciation Right.** The Committee may award a stock appreciation right ("SAR") either as a freestanding award or in tandem with a stock option. Upon exercise of the SAR, the holder will be entitled to receive an amount equal to the excess of the fair market value on the date of exercise of one share of Common Stock over the exercise price per share specified in the related stock option (or, in the case of freestanding SAR, the price per share specified in such right, which price may not be less than the fair market value of the Common Stock on the date of grant) times the number of shares of Common Stock with respect to which the SAR is exercised. This amount may be paid in cash, Common Stock, or a combination thereof, as determined by the Committee. If the SAR is granted in tandem with a stock option, exercise of the SAR cancels the related option to the extent of such exercise.

**Deferred Stock Awards.** The Committee may also award phantom stock units as deferred stock awards to participants. The deferred stock awards are ultimately payable in the form of shares of Common Stock and may be subject to such conditions and restrictions as the Committee may determine. These conditions and restrictions may include the achievement of certain performance goals (as summarized in the Proposal section above) and/or continued employment with the Company through a specified vesting period. During the deferral period, subject to terms and conditions imposed by the Committee, the deferred stock awards may be credited with dividend equivalent rights. Subject to the consent of the Committee, a participant may make an advance election to receive a portion of his or her compensation or restricted stock award otherwise due in the form of a deferred stock award.

**Restricted Stock.** The Committee may also award shares of Common Stock to participants, subject to such conditions and restrictions as the Committee may determine ("Restricted Stock"). These conditions and restrictions may include the achievement of certain performance goals (as summarized in the Proposal section above) and/or continued employment with the Company through a specified restricted period. The purchase price of shares of Restricted Stock will be determined by the Committee. If the performance goals and other restrictions are not attained, the employees will forfeit their awards of Restricted Stock.

**Unrestricted Stock.** The Committee may also grant shares (at no cost or for a purchase price determined by the Committee) which are free from any restrictions under the 1999 Plan ("Unrestricted Stock"). Unrestricted Stock may be issued to participants in recognition of past services or other valid consideration, and may be issued in lieu of cash bonuses to be paid to such employees and key persons.

**Performance Share Awards.** The Committee may also grant performance share awards to participants entitling the recipient to receive shares of Common Stock upon the achievement of individual or Company performance goals (as summarized in the Proposal section above) and such other conditions as the Committee shall determine ("Performance Share Award").

**Dividend Equivalent Rights.** The Committee may grant dividend equivalent rights, which entitle the recipient to receive credits for dividends that would be paid if the recipient had held specified shares of Common Stock. Dividend equivalent rights may be granted as a component of another award or as a freestanding award. Dividend equivalents credited under the 1999 Plan may be paid currently or be deemed to be reinvested in additional shares of Common Stock, which may thereafter accrue additional dividend equivalents at fair market value at the time of deemed reinvestment or on the terms then governing the reinvestment of dividends under the Company's dividend reinvestment plan, if any. Dividend equivalent rights may be settled in cash, shares, or a combination thereof, in a single



installment or installments, as specified in the award. Awards payable in cash on a deferred basis may provide for crediting and payment of interest equivalents.

Adjustments for Stock Dividends, Mergers, Etc. The Committee will make appropriate adjustments in outstanding awards to reflect stock dividends, stock splits and similar events. In the event of a merger, liquidation, sale of the Company or similar event, the Committee, in its discretion, may provide for substitution or adjustments of outstanding options and SARs, or may terminate all unvested options and SARs with or without payment of cash consideration.

Amendments and Termination. The Board of Directors may at any time amend or discontinue the 1999 Plan and the Committee may at any time amend or cancel outstanding awards for the purpose of satisfying changes in the law or for any other lawful purpose. However, no such action may be taken which adversely affects any rights under outstanding awards without the holder's consent. Further, Plan amendments shall be subject to approval by the Company's stockholders if and to the extent determined by the Committee to be required by the Code to preserve the qualified status of Incentive Options or to ensure that compensation earned under Plan awards qualifies as performance-based compensation under Section 162(m) of the Code.

Change of Control Provisions. The 1999 Plan provides that in the event of a "Change of Control" (as defined in the 1999 Plan) of the Company, all stock options, stock appreciation rights and dividend equivalent rights shall automatically become fully exercisable. In addition, at any time prior to or after a Change of Control, the Committee may accelerate awards and waive conditions and restrictions on any awards to the extent it may determine appropriate.

#### Effective Date of 1999 Plan

The 1999 Plan will become effective upon the affirmative vote of the holders of at least a majority of the votes cast on the proposal. For purposes of the vote on the 1999 Plan, abstentions and broker non-votes will not be counted as votes cast on the proposal. Both abstentions and broker non-votes will count towards the presence of a quorum. Awards of Incentive Stock Options may be granted under the 1999 Plan for a period of ten years from the date the plan is approved by the stockholders of the Company.

#### New Plan Benefits

Approximately 70 employees and Independent Directors are currently eligible to participate in the 1999 Plan. The number of shares that may be granted to directors, executive officers and non-executive officers is undeterminable at this time, as such grants are subject to the discretion of the Committee.

#### Tax Aspects Under the U.S. Internal Revenue Code

The following is a summary of the principal Federal income tax consequences of option grants under the 1999 Plan. It does not describe all Federal tax consequences under the 1999 Plan, nor does it describe state or local tax consequences.

#### Incentive Options

Under the Code, an employee will not realize taxable income by reason of the grant or the exercise of an Incentive Option. If an employee exercises an Incentive Option and does not dispose of the shares until the later of (a) two years from the date the option was granted or (b) one year from the date the shares were transferred to the employee, the entire gain, if any, realized upon disposition of such shares will be taxable to the employee as long-term capital gain, and the Company will not be entitled to any deduction. If an employee disposes of the shares within such one-year or two-year period in a manner so as to violate the holding period requirements (a "disqualifying disposition"), the employee generally will realize ordinary income in the year of disposition, and the Company will receive a corresponding deduction, in an amount equal to the excess of (1) the lesser of (x) the amount, if any, realized on the disposition and (y) the fair market value of the shares on the date the option was exercised over (2) the option price. Any additional gain realized on the disposition of the shares acquired upon exercise of the option will be long-term or short-term capital gain and any loss will be long-term or short-term capital loss depending upon the holding period for such shares. The employee will be considered to have disposed of his shares if he sells, exchanges, makes a gift of or transfers legal title to the shares (except by pledge or by transfer on death). If the disposition of shares is by gift and violates the holding period requirements, the amount of the employee's ordinary

income (and the Company's deduction) is equal to the fair market value of the shares on the date of exercise less the option price. If the disposition is by sale or exchange, the employee's tax basis will equal the amount paid for the shares plus any ordinary income realized as a result of the disqualifying distribution. The exercise of an Incentive Option may subject the employee to the alternative minimum tax.

Special rules apply if an employee surrenders shares of Common Stock in payment of the exercise price of his Incentive Option.

An Incentive Option that is exercised by an employee more than three months after an employee's employment terminates will be treated as a Non-Qualified Option for Federal income tax purposes. In the case of an employee who is disabled, the three-month period is extended to one year and in the case of an employee who dies, the three-month employment rule does not apply.

#### Non-Qualified Options

There are no Federal income tax consequences to either the optionee, or the Company on the grant of a Non-Qualified Option. On the exercise of a Non-Qualified Option, the optionee (except as described below) has taxable ordinary income equal to the excess of the fair market value of the Common Stock received on the exercise date over the option price of the shares. The optionee's tax basis for the shares acquired upon exercise of a Non-Qualified Option is increased by the amount of such taxable income. The Company will be entitled to a Federal income tax deduction in an amount equal to such excess. Upon the sale of the shares acquired by exercise of a Non-Qualified Option, the optionee will realize long-term or short-term capital gain or loss depending upon his or her holding period for such shares.

Special rules apply if an optionee surrenders shares of Common Stock in payment of the exercise price of a Non-Qualified Option.

#### Parachute Payments

The vesting of any portion of any award that is accelerated due to the occurrence of a change of control may cause a portion of the payments with respect to such accelerated award to be treated as "parachute payments" as defined in the Code. Any such parachute payments may be non-deductible to the Company, in whole or in part, and may subject the recipient to a non-deductible 20% Federal excise tax on all or portion of such payment (in addition to other taxes ordinarily payable).

#### Limitation on Company's Deductions

As a result of Section 162(m) of the Code, the Company's Federal tax deduction for certain awards under the Plan may be limited to the extent that a covered employee (i.e., the Chief Executive Officer or other executive officer whose compensation is required to be reported in the summary compensation table) receives compensation (other than performance-based compensation) in excess of \$1 million a year.

## INDEPENDENT ACCOUNTANTS

On February 10, 1994, the Board of Directors of the Company approved the engagement of PricewaterhouseCoopers, LLP as its independent accountants. The Company expects that a representative from PricewaterhouseCoopers, LLP will be present at the Annual Meeting to make a statement if he or she desires to do so and to respond to appropriate questions.

## STOCKHOLDER PROPOSALS FOR 2000 ANNUAL MEETING

The Company expects to hold its 2000 Annual Meeting on May 8, 2000. Eligible stockholders may present proposals for inclusion in the proxy statement and form of proxy for that meeting, provided the proposals comply with applicable Securities and Exchange Commission regulations and are received by the Company no later than November 30, 1999. All other proposals intended to be presented at the Company's 2000 Annual Meeting of Stockholders must be received by the Company no later than February 21, 2000 and no earlier than January 7, 2000. Any such proposal shall be mailed to: Secretary, AVANT Immunotherapeutics, Inc., 119 Fourth Avenue, Needham, MA 02494.

## OTHER BUSINESS

All stockholders of record at the close of business on March 22, 1999, the record date for the determination of stockholders entitled to vote at the Annual Meeting, are concurrently being sent a copy of the Company's Annual Report, including financial statements for the fiscal year ended December 31, 1998.

The expense of preparing, printing and mailing the Notice of Annual Meeting of stockholders and proxy material, and all other expenses of soliciting proxies will be borne by the Company. The Company expects to retain Corporate Investor Communications, Inc. as agent for soliciting proxies. Officers or other employees of the Company may, without additional compensation therefor, solicit proxies in person, by telephone, facsimile, mail or the Internet. The Company may also reimburse brokerage firms, banks, trustees, nominees and other persons for their expenses in forwarding proxy material to the beneficial owners of shares held by them of record.

Under Delaware law, the state of incorporation of the Company, there are no dissenter's rights available to stockholders who object to the actions set forth in any of the Proposals to be presented to the Annual Meeting.

Management knows of no business which will be presented for consideration at the Annual Meeting other than that stated in the Notice of Meeting. However, if any such matter shall properly come before the meeting, the persons named as proxies will vote on such matters in accordance with their best judgment.

The prompt return of the proxy will be appreciated and helpful in obtaining the necessary vote. Therefore, whether or not you expect to attend the meeting, please sign the proxy and return it in the enclosed envelope.

By Order of the Board of Directors

JAMES E. O'NEILL  
Secretary

Dated: March 31, 1999

A COPY OF THE COMPANY'S ANNUAL REPORT ON FORM 10-K WILL BE SENT WITHOUT CHARGE TO ANY STOCKHOLDER REQUESTING IT IN WRITING FROM AVANT IMMUNOTHERAPEUTICS, INC., ATTENTION: INVESTOR RELATIONS, 119 FOURTH AVENUE, NEEDHAM, MASSACHUSETTS 02494.



EXHIBIT A

AVANT Immunotherapeutics, Inc.

1999 Stock Option and Incentive Plan

1999 STOCK OPTION AND INCENTIVE PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan (the "Plan"). The purpose of the Plan is to encourage and enable the officers, employees, Independent Directors and other key persons (including consultants) of AVANT Immunotherapeutics, Inc. (the "Company") and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company's welfare will assure a closer identification of their interests with those of the Company, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company.

The following terms shall be defined as set forth below:

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

"Administrator" is defined in Section 2(a).

"Award" or "Awards," except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Deferred Stock Awards, Restricted Stock Awards, Unrestricted Stock Awards, Performance Share Awards and Dividend Equivalent Rights.

"Board" means the Board of Directors of the Company.

"Change of Control" is defined in Section 17.

"Code" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

"Committee" means the Committee of the Board referred to in Section 2.

"Covered Employee" means an employee who is a "Covered Employee" within the meaning of Section 162(m) of the Code.

"Deferred Stock Award" means Awards granted pursuant to Section 8.

"Dividend Equivalent Right" means Awards granted pursuant to Section 12.

"Effective Date" means the date on which the Plan is approved by stockholders as set forth in Section 19.

"Fair Market Value" of the Stock on any given date means the fair market value of the Stock determined in good faith by the Administrator; provided, however, that (i) if the Stock is admitted to quotation on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), NASDAQ National System or a national securities exchange, the determination shall be made by reference to market quotations. If there are no market quotations for such date, the determination shall be made by reference to the last date preceding such date for which there are market quotations.

"Incentive Stock Option" means any Stock Option designated and qualified as an "incentive stock option" as defined in Section 422 of the Code.

"Independent Director" means a member of the Board who is not also an employee of the Company or any Subsidiary.

"Non-Qualified Stock Option" means any Stock Option that is not an Incentive Stock Option.

"Option" or "Stock Option" means any option to purchase shares of Stock granted pursuant to Section 5.

"Performance Share Award" means Awards granted pursuant to Section 10.

"Performance Cycle" means one or more periods of time, which may be of varying and overlapping durations, as the Administrator may select, over which the attainment of one or more performance criteria will be measured

for the purpose of determining a participant's right to and the payment of a Performance Share Award, Restricted Stock Award or Deferred Stock Award.

"Restricted Stock Award" means Awards granted pursuant to Section 7.

"Stock" means the Common Stock, par value \$.01 per share, of the Company, subject to adjustments pursuant to Section 3.

"Stock Appreciation Right" means any Award granted pursuant to Section 6.

"Subsidiary" means any corporation or other entity (other than the Company) in any unbroken chain of corporations or other entities beginning with the Company if each of the corporations or entities (other than the last corporation or entity in the unbroken chain) owns stock or other interests possessing 50 percent or more of the economic interest or the total combined voting power of all classes of stock or other interests in one of the other corporations or entities in the chain.

"Unrestricted Stock Award" means any Award granted pursuant to Section 9.

## SECTION 2. ADMINISTRATION OF PLAN; ADMINISTRATOR AUTHORITY TO SELECT PARTICIPANTS AND DETERMINE AWARDS

(a) Committee. The Plan shall be administered by either the Board or a committee of not less than two Independent Directors (in either case, the "Administrator").

(b) Powers of Administrator. The Administrator shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

- (i) to select the individuals to whom Awards may from time to time be granted;
- (ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Stock Appreciation Rights, Restricted Stock Awards, Deferred Stock Awards, Unrestricted Stock Awards, Performance Share Awards and Dividend Equivalent Rights, or any combination of the foregoing, granted to any one or more participants;
- (iii) to determine the number of shares of Stock to be covered by any Award;
- (iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and participants, and to approve the form of written instruments evidencing the Awards;
- (v) to accelerate the exercisability or vesting of all or any portion of any Award in circumstances involving a Change of Control or the death, disability or termination of employment of a Plan participant;
- (vi) subject to the provisions of Section 5(a)(ii), to extend at any time the period in which Stock Options may be exercised; and
- (vii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Administrator shall be binding on all persons, including the Company and Plan participants.

(c) Delegation of Authority to Grant Awards. The Administrator, in its discretion, may delegate to the Chief Executive Officer of the Company all or part of the Administrator's authority and duties with respect to the granting of Awards at Fair Market Value, to individuals who are not subject to the reporting and other provisions of Section 16 of the Act or "covered employees" within the meaning of Section 162(m) of the Code. Any such delegation by the Administrator shall include a limitation as to the amount of Awards that may be granted during the period of the delegation and shall contain guidelines as to the determination of the exercise price of any Stock Option or Stock Appreciation Right, the conversion ratio or price of other Awards and the vesting criteria. The Administrator may



revoke or amend the terms of a delegation at any time but such action shall not invalidate any prior actions of the Administrator's delegate or delegates that were consistent with the terms of the Plan.

### SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS; SUBSTITUTION

(a) Stock Issuable. The maximum number of shares of Stock reserved and available for issuance under the Plan shall be 2,000,000 shares; provided that not more than 500,000 shares shall be issued in the form of Unrestricted Stock Awards, Restricted Stock Awards or Performance Share Awards. For purposes of this limitation, the shares of Stock underlying any Awards granted under this Plan or the Amended and Restated 1991 Stock Compensation Plan which are forfeited, cancelled, reacquired by the Company, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) shall be added back to the shares of Stock available for issuance under the Plan. Subject to such overall limitation, shares of Stock may be issued up to such maximum number pursuant to any type or types of Award; provided, however, that Stock Options or Stock Appreciation Rights with respect to no more than 500,000 shares of Stock may be granted to any one individual participant during any calendar year period. The shares available for issuance under the Plan may be authorized but unissued shares of Stock or shares of Stock reacquired by the Company and held in its treasury.

(b) Changes in Stock. If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding shares of Stock are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such shares of Stock or other securities, the Administrator shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan, (ii) the number of Stock Options or Stock Appreciation Rights that can be granted to any one individual participant, (iii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan, and (iv) the price for each share subject to any then outstanding Stock Options and Stock Appreciation Rights under the Plan, without changing the aggregate exercise price (i.e., the exercise price multiplied by the number of Stock Options and Stock Appreciation Rights) as to which such Stock Options and Stock Appreciation Rights remain exercisable. The adjustment by the Administrator shall be final, binding and conclusive. No fractional shares of Stock shall be issued under the Plan resulting from any such adjustment, but the Administrator in its discretion may make a cash payment in lieu of fractional shares.

The Administrator may also adjust the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration material changes in accounting practices or principles, extraordinary dividends, acquisitions or dispositions of stock or property or any other event if it is determined by the Administrator that such adjustment is appropriate to avoid distortion in the operation of the Plan, provided that no such adjustment shall be made in the case of an Incentive Stock Option, without the consent of the participant, if it would constitute a modification, extension or renewal of the Option within the meaning of Section 424(h) of the Code.

(c) Mergers and Other Transactions. In the case of and subject to the consummation of (i) the dissolution or liquidation of the Company, (ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (iii) a merger, reorganization or consolidation in which the holders of the Company's outstanding voting power immediately prior to such transaction do not own a majority of the outstanding voting power of the surviving or resulting entity immediately upon completion of such transaction, (iv) the sale of all of the Stock of the Company to an unrelated person or entity or (v) any other transaction in which the owners of the Company's outstanding voting power prior to such transaction do not own at least a majority of the outstanding voting power of the relevant entity after the transaction (in each case, a "Covered Transaction"), all Options and Stock Appreciation Rights that are not exercisable shall become fully exercisable and all other Awards with conditions and restrictions relating solely to the passage of time and continued employment shall become fully vested, except as the Administrator may otherwise specify with respect to particular Awards. Upon the consummation of the Covered Transaction, the Plan and all outstanding Awards granted hereunder shall terminate, unless provision is made in connection with the Covered Transaction for the assumption of Awards heretofore granted, or the substitution of such Awards with new Awards of the successor entity or parent thereof, with appropriate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as provided in Section 3(b) above. In the event of such termination, each optionee shall be permitted, within a specified period of time determined by the Administrator prior to consummation of the Covered Transaction, to exercise all outstanding Options



and Stock Appreciation Rights held by such optionee, including those that are not then exercisable, subject to the consummation of the Covered Transaction.

(d) Substitute Awards. The Administrator may grant Awards under the Plan in substitution for stock and stock based awards held by employees of another corporation who become employees of the Company or a Subsidiary as the result of a merger or consolidation of the employing corporation with the Company or a Subsidiary or the acquisition by the Company or a Subsidiary of property or stock of the employing corporation. The Administrator may direct that the substitute awards be granted on such terms and conditions as the Administrator considers appropriate in the circumstances. Any substitute Awards granted under the Plan shall not count against the share limitation set forth in Section 3(a).

#### SECTION 4. ELIGIBILITY

Participants in the Plan will be such full or part-time officers and other employees, Independent Directors and key persons (including consultants and prospective employees) of the Company and its Subsidiaries as are selected from time to time by the Administrator in its sole discretion.

#### SECTION 5. STOCK OPTIONS

Any Stock Option granted under the Plan shall be in such form as the Administrator may from time to time approve.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

No Incentive Stock Option shall be granted under the Plan after May , 2009.

(a) Stock Options Granted to Employees and Key Persons. The Administrator in its discretion may grant Stock Options to eligible employees and key persons of the Company or any Subsidiary. Stock Options granted pursuant to this Section 5(a) shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Administrator shall deem desirable. If the Administrator so determines, Stock Options may be granted in lieu of cash compensation at the participant's election, subject to such terms and conditions as the Administrator may establish.

- (i) Exercise Price. The exercise price per share for the Stock covered by a Stock Option granted pursuant to this Section 5(a) shall be determined by the Administrator at the time of grant but shall not be less than 100 percent of the Fair Market Value on the date of grant unless the Stock Option is granted in lieu of cash compensation. If an employee owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation and an Incentive Stock Option is granted to such employee, the option price of such Incentive Stock Option shall be not less than 110 percent of the Fair Market Value on the grant date.
- (ii) Option Term. The term of each Stock Option shall be fixed by the Administrator, but no Stock Option shall be exercisable more than ten years after the date the option is granted. If an employee owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent or subsidiary corporation and an Incentive Stock Option is granted to such employee, the term of such option shall be no more than five years from the date of grant.
- (iii) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Administrator at or after the grant date; provided, however, that Stock Options granted in lieu of compensation shall be exercisable in full as of the grant date. An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.
- (iv) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written notice of exercise to the Company, specifying the number of shares to be purchased. Payment of the purchase price may be made by one or more of the following methods to the extent provided in the Option Award agreement:





- (A) In cash, by certified or bank check or other instrument acceptable to the Administrator;
- (B) Through the delivery (or attestation to the ownership) of shares of Stock that have been purchased by the optionee on the open market or that have been beneficially owned by the optionee for at least six months and are not then subject to restrictions under any Company plan. Such surrendered shares shall be valued at Fair Market Value on the exercise date;
- (C) By the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; provided that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or
- (D) By the optionee delivering to the Company a promissory note if the Board has expressly authorized the loan of funds to the optionee for the purpose of enabling or assisting the optionee to effect the exercise of his Stock Option; provided that at least so much of the exercise price as represents the par value of the Stock shall be paid other than with a promissory note.

Payment instruments will be received subject to collection. The delivery of certificates representing the shares of Stock to be purchased pursuant to the exercise of a Stock Option will be contingent upon receipt from the optionee (or a purchaser acting in his stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such shares and the fulfillment of any other requirements contained in the Stock Option or applicable provisions of laws. In the event an optionee chooses to pay the purchase price by previously-owned shares of Stock through the attestation method, the number of shares of Stock transferred to the optionee upon the exercise of the Stock Option shall be net of the number of shares attested to.

- (v) Annual Limit on Incentive Stock Options. To the extent required for "incentive stock option" treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the time of grant) of the shares of Stock with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

(b) Reload Options. At the discretion of the Administrator, Options granted under the Plan may include a "reload" feature pursuant to which an optionee exercising an option by the delivery of a number of shares of Stock in accordance with Section 5(a)(iv)(B) hereof would automatically be granted an additional Option (with an exercise price equal to the Fair Market Value of the Stock on the date the additional Option is granted and with such other terms as the Administrator may provide) to purchase that number of shares of Stock equal to the sum of (i) the number delivered to exercise the original Option and (ii) the number withheld to satisfy tax liabilities, with an Option term equal to the remainder of the original Option term unless the Administrator otherwise determines in the Award agreement for the original Option grant.

(c) Stock Options Granted to Independent Directors.

(i) Automatic Grant of Options.

- (A) Each Independent Director who is serving as Director of the Company on the fifth business day after each annual meeting of shareholders, beginning with the 1999 annual meeting, shall automatically be granted on such day a Non-Qualified Stock Option to acquire 10,000 shares of Stock.
- (B) The exercise price per share for the Stock covered by a Stock Option granted under this Section 5(c) shall be equal to the Fair Market Value of the Stock on the date the Stock Option is granted.
- (C) The Administrator, in its discretion, may grant additional Non-Qualified Stock Options to Independent Directors. Any such grant may vary among individual Independent Directors.



(ii) Exercise; Termination.

- (A) Unless otherwise determined by the Administrator, an Option granted under Section 5(c) shall be exercisable after the first anniversary of the grant date. An Option issued under this Section 5(c) shall not be exercisable after the expiration of ten years from the date of grant.
- (B) Options granted under this Section 5(c) may be exercised only by written notice to the Company specifying the number of shares to be purchased. Payment of the full purchase price of the shares to be purchased may be made by one or more of the methods specified in Section 5(a)(iv). An optionee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options.

(d) Non-transferability of Options. No Stock Option shall be transferable by the optionee otherwise than by will or by the laws of descent and distribution and all Stock Options shall be exercisable, during the optionee's lifetime, only by the optionee, or by the optionee's legal representative or guardian in the event of the optionee's incapacity. Notwithstanding the foregoing, the Administrator, in its sole discretion, may provide in the Award agreement regarding a given Option that the optionee may transfer his Non-Qualified Stock Options to members of his immediate family, to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners, provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Option.

#### SECTION 6. STOCK APPRECIATION RIGHTS.

(a) Nature of Stock Appreciation Rights. A Stock Appreciation Right is an Award entitling the recipient to receive an amount in cash or shares of Stock or a combination thereof having a value equal to the excess of the Fair Market Value of the Stock on the date of exercise over the exercise price of the Stock Appreciation Right, which price shall not be less than 100 percent of the Fair Market Value of the Stock on the date of grant (or more than the option exercise price per share, if the Stock Appreciation Right was granted in tandem with a Stock Option) multiplied by the number of shares of Stock with respect to which the Stock Appreciation Right shall have been exercised, with the Administrator having the right to determine the form of payment.

(b) Grant and Exercise of Stock Appreciation Rights. Stock Appreciation Rights may be granted by the Administrator in tandem with, or independently of, any Stock Option granted pursuant to Section 5 of the Plan. In the case of a Stock Appreciation Right granted in tandem with a Non-Qualified Stock Option, such Stock Appreciation Right may be granted either at or after the time of the grant of such Option. In the case of a Stock Appreciation Right granted in tandem with an Incentive Stock Option, such Stock Appreciation Right may be granted only at the time of the grant of the Option.

A Stock Appreciation Right or applicable portion thereof granted in tandem with a Stock Option shall terminate and no longer be exercisable upon the termination or exercise of the related Option.

(c) Terms and Conditions of Stock Appreciation Rights. Stock Appreciation Rights shall be subject to such terms and conditions as shall be determined from time to time by the Administrator, subject to the following:

- (i) Stock Appreciation Rights granted in tandem with Options shall be exercisable at such time or times and to the extent that the related Stock Options shall be exercisable.
- (ii) Upon exercise of a Stock Appreciation Right, the applicable portion of any related Option shall be surrendered.
- (iii) All Stock Appreciation Rights shall be exercisable during the participant's lifetime only by the participant or the participant's legal representative.

#### SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. A Restricted Stock Award is an Award entitling the recipient to acquire, at par value or such other higher purchase price determined by the Administrator, shares of Stock subject to such restrictions and conditions as the Administrator may determine at the time of grant ("Restricted Stock"). Conditions may be based on continuing employment (or other business relationship) and/or achievement of pre-established performance goals and objectives. The grant of a Restricted Stock Award is contingent on the participant executing



the Restricted Stock Award agreement. The terms and conditions of each such agreement shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and participants.

(b) Rights as a Stockholder. Upon execution of a written instrument setting forth the Restricted Stock Award and payment of any applicable purchase price, a participant shall have the rights of a stockholder with respect to the voting of the Restricted Stock, subject to such conditions contained in the written instrument evidencing the Restricted Stock Award. Unless the Administrator shall otherwise determine, certificates evidencing the Restricted Stock shall remain in the possession of the Company until such Restricted Stock is vested as provided in Section 7(d) below, and the participant shall be required, as a condition of the grant, to deliver to the Company a stock power endorsed in blank.

(c) Restrictions. Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Restricted Stock Award agreement. If a participant's employment (or other business relationship) with the Company and its Subsidiaries terminates for any reason, the Company shall have the right to repurchase Restricted Stock that has not vested at the time of termination at its original purchase price, from the participant or the participant's legal representative.

(d) Vesting of Restricted Stock. The Administrator at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the non-transferability of the Restricted Stock and the Company's right of repurchase or forfeiture shall lapse. Subsequent to such date or dates and/or the attainment of such pre-established performance goals, objectives and other conditions, the shares on which all restrictions have lapsed shall no longer be Restricted Stock and shall be deemed "vested." Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 15 below, in writing after the Award agreement is issued, a participant's rights in any shares of Restricted Stock that have not vested shall automatically terminate upon the participant's termination of employment (or other business relationship) with the Company and its Subsidiaries and such shares shall be subject to the Company's right of repurchase as provided in Section 7(c) above.

(e) Waiver, Deferral and Reinvestment of Dividends. The Restricted Stock Award agreement may require or permit the immediate payment, waiver, deferral or investment of dividends paid on the Restricted Stock.

#### SECTION 8. DEFERRED STOCK AWARDS

(a) Nature of Deferred Stock Awards. A Deferred Stock Award is an Award of phantom stock units to a participant, subject to restrictions and conditions as the Administrator may determine at the time of grant. Conditions may be based on continuing employment (or other business relationship) and/or achievement of pre-established performance goals and objectives. The grant of a Deferred Stock Award is contingent on the participant executing the Deferred Stock Award agreement. The terms and conditions of each such agreement shall be determined by the Administrator, and such terms and conditions may differ among individual Awards and participants. At the end of the deferral period, the Deferred Stock Award, to the extent vested, shall be paid to the participant in the form of shares of Stock.

(b) Election to Receive Deferred Stock Awards in Lieu of Compensation. The Administrator may, in its sole discretion, permit a participant to elect to receive a portion of the cash compensation or Restricted Stock Award otherwise due to such participant in the form of a Deferred Stock Award. Any such election shall be made in writing and shall be delivered to the Company no later than the date specified by the Administrator and in accordance with rules and procedures established by the Administrator. The Administrator shall have the sole right to determine whether and under what circumstances to permit such elections and to impose such limitations and other terms and conditions thereon as the Administrator deems appropriate.

(c) Rights as a Stockholder. During the deferral period, a participant shall have no rights as a stockholder; provided, however, that the participant may be credited with Dividend Equivalent Rights with respect to the phantom stock units underlying his Deferred Stock Award, subject to such terms and conditions as the Administrator may determine.

(d) Restrictions. A Deferred Stock Award may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of during the deferral period.

(e) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 15 below, in writing after the Award agreement is issued, a participant's right in all Deferred



Stock Awards that have not vested shall automatically terminate upon the participant's termination of employment (or cessation of business relationship) with the Company and its Subsidiaries for any reason.

#### SECTION 9. UNRESTRICTED STOCK AWARDS

Grant or Sale of Unrestricted Stock. The Administrator may, in its sole discretion, grant (or sell at par value or such higher purchase price determined by the Administrator) an Unrestricted Stock Award to any participant pursuant to which such participant may receive shares of Stock free of any restrictions ("Unrestricted Stock") under the Plan. Unrestricted Stock Awards may be granted or sold as described in the preceding sentence in respect of past services or other valid consideration, or in lieu of cash compensation due to such participant.

#### SECTION 10. PERFORMANCE SHARE AWARDS

(a) Nature of Performance Share Awards. A Performance Share Award is an Award entitling the recipient to acquire shares of Stock upon the attainment of specified performance goals. The Administrator may make Performance Share Awards independent of or in connection with the granting of any other Award under the Plan. The Administrator in its sole discretion shall determine whether and to whom Performance Share Awards shall be made, the performance goals, the periods during which performance is to be measured, and all other limitations and conditions.

(b) Rights as a Stockholder. A participant receiving a Performance Share Award shall have the rights of a stockholder only as to shares actually received by the participant under the Plan and not with respect to shares subject to the Award but not actually received by the participant. A participant shall be entitled to receive a stock certificate evidencing the acquisition of shares of Stock under a Performance Share Award only upon satisfaction of all conditions specified in the Performance Share Award agreement (or in a performance plan adopted by the Administrator).

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 15 below, in writing after the Award agreement is issued, a participant's rights in all Performance Share Awards shall automatically terminate upon the participant's termination of employment (or cessation of business relationship) with the Company and its Subsidiaries for any reason.

(d) Acceleration, Waiver, Etc. At any time prior to the participant's termination of employment (or other business relationship) by the Company and its Subsidiaries, the Administrator may in its sole discretion accelerate, waive or, subject to Section 15, amend any or all of the goals, restrictions or conditions applicable to a Performance Share Award.

#### SECTION 11. PERFORMANCE-BASED AWARDS TO COVERED EMPLOYEES

Notwithstanding anything to the contrary contained herein, if any Restricted Stock Award, Deferred Stock Award or Performance Share Award granted to a Covered Employee is intended to qualify as "Performance-based Compensation" under Section 162(m) of the Code and the regulations promulgated thereunder (a "Performance-based Award"), such Award shall comply with the provisions set forth below:

(a) Performance Criteria. The performance criteria used in performance goals governing Performance-based Awards granted to Covered Employees may include any or all of the following: (i) the Company's return on equity, assets, capital or investment, (ii) pre-tax or after-tax profit levels of the Company or any Subsidiary, a division, an operating unit or a business segment of the Company, or any combination of the foregoing; (iii) cash flow, funds from operations, year-end cash and equivalents balance or similar measure; (iv) total shareholder return; (v) changes in the market price of the Stock; (vi) sales or market share; (vii) earnings per share; (viii) partnerships, collaborations, joint ventures, alliances and similar arrangements involving the Company; (ix) mergers, acquisitions and business combinations of or by the Company; or (x) the Company's rights to intellectual property and scientific discoveries.

(b) Grant of Performance-based Awards. With respect to each Performance-based Award granted to a Covered Employee, the Committee shall select, within the first 90 days of a Performance Cycle (or, if shorter, within the maximum period allowed under Section 162(m) of the Code) the performance criteria for such grant, and the achievement targets with respect to each performance criterion (including a threshold level of performance below which no amount will become payable with respect to such Award). Each Performance-based Award will specify the amount payable, or the formula for determining the amount payable, upon achievement of the various applicable performance targets. The performance criteria established by the Committee may be (but need not be) different for each Performance Cycle and different goals may be applicable to Performance-based Awards to different Covered Employees.





(c) Payment of Performance-based Awards. Following the completion of a Performance Cycle, the Committee shall meet to review and certify in writing whether, and to what extent, the performance criteria for the Performance Cycle have been achieved and, if so, to also calculate and certify in writing the amount of the Performance-based Awards earned for the Performance Cycle. The Committee shall then determine the actual size of each Covered Employee's Performance-based Award, and, in doing so, may reduce or eliminate the amount of the Performance-based Award for a Covered Employee if, in its sole judgment, such reduction or elimination is appropriate.

(d) Maximum Award Payable. The maximum Performance-based Award payable to any one Covered Employee under the Plan for a Performance Cycle is 250,000 Shares (subject to adjustment as provided in Section 3(b) hereof).

## SECTION 12. DIVIDEND EQUIVALENT RIGHTS

(a) Dividend Equivalent Rights. A Dividend Equivalent Right is an Award entitling the recipient to receive credits based on cash dividends that would have been paid on the shares of Stock specified in the Dividend Equivalent Right (or other award to which it relates) if such shares had been issued to and held by the recipient. A Dividend Equivalent Right may be granted hereunder to any participant as a component of another Award or as a freestanding award. The terms and conditions of Dividend Equivalent Rights shall be specified in the grant. Dividend equivalents credited to the holder of a Dividend Equivalent Right may be paid currently or may be deemed to be reinvested in additional shares of Stock, which may thereafter accrue additional equivalents. Any such reinvestment shall be at Fair Market Value on the date of reinvestment or such other price as may then apply under a dividend reinvestment plan sponsored by the Company, if any. Dividend Equivalent Rights may be settled in cash or shares of Stock or a combination thereof, in a single installment or installments. A Dividend Equivalent Right granted as a component of another Award may provide that such Dividend Equivalent Right shall be settled upon exercise, settlement, or payment of, or lapse of restrictions on, such other award, and that such Dividend Equivalent Right shall expire or be forfeited or annulled under the same conditions as such other award. A Dividend Equivalent Right granted as a component of another Award may also contain terms and conditions different from such other award.

(b) Interest Equivalents. Any Award under this Plan that is settled in whole or in part in cash on a deferred basis may provide in the grant for interest equivalents to be credited with respect to such cash payment. Interest equivalents may be compounded and shall be paid upon such terms and conditions as may be specified by the grant.

(c) Termination. Except as may otherwise be provided by the Administrator either in the Award agreement or, subject to Section 15 below, in writing after the Award agreement is issued, a participant's rights in all Dividend Equivalent Rights or interest equivalents shall automatically terminate upon the participant's termination of employment (or cessation of business relationship) with the Company and its Subsidiaries for any reason.

## SECTION 13. TAX WITHHOLDING

(a) Payment by Participant. Each participant shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the participant for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Administrator regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the participant. The Company's obligation to deliver stock certificates to any participant is subject to and conditioned on tax obligations being satisfied by the participant.

(b) Payment in Stock. Subject to approval by the Administrator, a participant may elect to have such tax withholding obligation satisfied, in whole or in part, by (i) authorizing the Company to withhold from shares of Stock to be issued pursuant to any Award a number of shares with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due, or (ii) transferring to the Company shares of Stock owned by the participant with an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the withholding amount due.

## SECTION 14. TRANSFER, LEAVE OF ABSENCE, ETC.

For purposes of the Plan, the following events shall not be deemed a termination of employment:

(a) a transfer to the employment of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another; or



(b) an approved leave of absence for military service or sickness, or for any other purpose approved by the Company, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Administrator otherwise so provides in writing.

#### SECTION 15. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Administrator may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall (a) adversely affect rights under any outstanding Award without the holder's consent or (b) without the prior approval of the Company's stockholders, reduce the exercise price of or otherwise reprice, including through replacement grants, any outstanding Stock Option or Stock Appreciation Right. If and to the extent determined by the Administrator to be required by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code or to ensure that compensation earned under Awards qualifies as performance-based compensation under Section 162(m) of the Code, if and to the extent intended to so qualify, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 15 shall limit the Administrator's authority to take any action permitted pursuant to Section 3(c).

#### SECTION 16. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a participant, a participant shall have no rights greater than those of a general creditor of the Company unless the Administrator shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Administrator may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

#### SECTION 17. CHANGE OF CONTROL PROVISIONS

Upon the occurrence of a Change of Control as defined in this Section 17:

(a) Except as otherwise provided in the applicable Award agreement, each outstanding Stock Option, Stock Appreciation Right and Dividend Equivalent Right shall automatically become fully exercisable.

(b) Except as otherwise provided in the applicable Award Agreement, conditions and restrictions on each outstanding Restricted Stock Award, Deferred Stock Award and Performance Share Award which relate solely to the passage of time and continued employment will be removed. Performance or other conditions (other than conditions and restrictions relating solely to the passage of time and continued employment) will continue to apply unless otherwise provided in the applicable Award Agreement.

(c) "Change of Control" shall mean the occurrence of any one of the following events:

- (i) any "Person," as such term is used in Sections 13(d) and 14(d) of the Act (other than the Company, any of its Subsidiaries, or any trustee, fiduciary or other person or entity holding securities under any employee benefit plan or trust of the Company or any of its Subsidiaries), together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Act) of such person, shall become the "beneficial owner" (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing 25 percent or more of the combined voting power of the Company's then outstanding securities having the right to vote in an election of the Company's Board of Directors ("Voting Securities") (in such case other than as a result of an acquisition of securities directly from the Company); or
- (ii) persons who, as of the Effective Date, constitute the Company's Board of Directors (the "Incumbent Directors") cease for any reason, including, without limitation, as a result of a tender offer, proxy contest, merger or similar transaction, to constitute at least a majority of the Board, provided that any person becoming a director of the Company subsequent to the Effective Date shall be considered an Incumbent Director if such person's election was approved by or such person was nominated for election by either (A) a vote of at least a majority of the Incumbent Directors or (B) a vote of at least a majority of the Incumbent Directors who are members of a nominating committee comprised, in the majority, of Incumbent Directors; but provided further, that any such person whose initial assumption of office is in connection with



an actual or threatened election contest relating to the election of members of the Board of Directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board, including by reason of agreement intended to avoid or settle any such actual or threatened contest or solicitation, shall not be considered an Incumbent Director; or

(iii) the stockholders of the Company shall approve (A) any consolidation or merger of the Company where the stockholders of the Company, immediately prior to the consolidation or merger, would not, immediately after the consolidation or merger, beneficially own (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, shares representing in the aggregate more than 50 percent of the voting shares of the corporation issuing cash or securities in the consolidation or merger (or of its ultimate parent corporation, if any), (B) any sale, lease, exchange or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company or (C) any plan or proposal for the liquidation or dissolution of the Company.

Notwithstanding the foregoing, a "Change of Control" shall not be deemed to have occurred for purposes of the foregoing clause (i) solely as the result of an acquisition of securities by the Company which, by reducing the number of shares of Voting Securities outstanding, increases the proportionate number of shares of Voting Securities beneficially owned by any person to 25 percent or more of the combined voting power of all then outstanding Voting Securities; provided, however, that if any person referred to in this sentence shall thereafter become the beneficial owner of any additional shares of Voting Securities (other than pursuant to a stock split, stock dividend, or similar transaction or as a result of an acquisition of securities directly from the Company), then a "Change of Control" shall be deemed to have occurred for purposes of the foregoing clause (i).

#### SECTION 18. GENERAL PROVISIONS

(a) No Distribution; Compliance with Legal Requirements. The Administrator may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the shares without a view to distribution thereof.

No shares of Stock shall be issued pursuant to an Award until all applicable securities law and other legal and stock exchange or similar requirements have been satisfied. The Administrator may require the placing of such stop-orders and restrictive legends on certificates for Stock and Awards as it deems appropriate.

(b) Delivery of Stock Certificates. Stock certificates to participants under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the participant, at the participant's last known address on file with the Company.

(c) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(d) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to such Company's insider trading policy, as in effect from time to time.

#### SECTION 19. EFFECTIVE DATE OF PLAN

This Plan shall become effective upon approval by the holders of a majority of the votes cast at a meeting of stockholders at which a quorum is present. Subject to such approval by the stockholders and to the requirement that no Stock may be issued hereunder prior to such approval, Stock Options and other Awards may be granted hereunder on and after adoption of this Plan by the Board.

#### SECTION 20. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

DATE APPROVED BY BOARD OF DIRECTORS:

DATE APPROVED BY STOCKHOLDERS:



AVANT IMMUNOTHERAPEUTICS, INC.

Proxy Solicited by the Board of Directors for the  
Annual Meeting of Stockholders  
on May 6, 1999

The undersigned hereby appoints J. Barrie Ward and Una S. Ryan, and each of them, as the true and lawful attorneys, agents and proxies of the undersigned, with full power of substitution, and hereby authorizes them to represent and to vote, as designated on the reverse, all shares of Common Stock held of record by the undersigned on March 22, 1999, at the Annual Meeting of Stockholders (the "Meeting") to be held at 2:00 p.m. on May 6, 1999 at the Company's offices located at 119 Fourth Avenue, Needham, Massachusetts 02494, or at any adjournment or postponement thereof. When properly executed, this proxy will be voted in the manner directed herein by the undersigned stockholder(s). If no direction is given, this proxy will be voted FOR the election of the nominees for director listed in Proposal 1 and FOR Proposal 2 and, in their discretion, the proxies are each authorized to vote upon such other business as may properly come before the Meeting and any adjournments or postponements thereof. Any stockholders wishing to vote in accordance with the Board of Directors' recommendations need only sign and date this proxy and return it in the postage paid envelope provided.

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PLEASE VOTE, DATE, AND SIGN ON REVERSE SIDE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE.  
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Please sign exactly as your name(s) appear(s) on the books of the Company. Joint owners should each sign personally. Trustees and other fiduciaries should indicate the capacity in which they sign, and where more than one name appears, a majority must sign. If a corporation, this signature should be that of an authorized officer who should state his or her title.  
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HAS YOUR ADDRESS CHANGED?	DO YOU HAVE ANY COMMENTS?
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-----	-----

[X] PLEASE MARK VOTES  
AS IN THIS EXAMPLE

-----  
AVANT IMMUNOTHERAPEUTICS, INC.  
-----

1. Election of Directors.

J. Barrie Ward		John W. Littlechild
Una S. Ryan		Thomas R. Ostermueller
Frederick W. Kyle		Harry H. Penner, Jr.

For All Nominees	With- hold	For All Except
[ ]	[ ]	[ ]

NOTE: If you do not wish your shares to be voted "For" a particular nominee, mark the "For All Except" box and draw a line through that nominee(s) name(s). Your shares will be voted "For" the remaining nominee(s).

	For	Against	Abstain
2. Approval of the adoption of the AVANT Immunotherapeutics, Inc. 1999 Stock Option and Incentive Plan, replacing the Amended and Restated 1991 Stock Compensation Plan.	[ ]	[ ]	[ ]

Please be sure to sign and date this Proxy. -----  
Date  
-----

- -----Stockholder sign here-----Co-owner sign here-----

Mark box at right if an address change or comment has been noted on the reverse side of this card. [ ]



DETACH CARD

DETACH CARD

AVANT IMMUNOTHERAPEUTICS, INC.

Dear Stockholder:

Please take note of the important information enclosed with this Proxy Ballot.

Your vote counts, and you are strongly encouraged to exercise your right to vote your shares.

Please mark the boxes on this proxy card to indicate how your shares will be voted. Then sign the card, detach it and return your proxy vote in the enclosed postage paid envelope.

Your vote must be received prior to the Annual Meeting of Stockholders, May 6, 1999.

Thank you in advance for your prompt consideration of these matters.

Sincerely,

AVANT Immunotherapeutics, Inc.