

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934  
(Amendment No. )\*

AVANT Immunotherapeutics, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

053491205

(CUSIP Number)

Ursula B. Bartels  
Senior Vice President, General Counsel and Secretary  
Medarex, Inc.  
707 State Road  
Princeton, NJ 08540  
(609) 430-2880

With a Copy to:

Nancy H. Wojtas  
Cooley Godward Kronish LLP  
Five Palo Alto Square  
3000 El Camino Real  
Palo Alto, CA 94306  
(650) 843-5000

(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

March 7, 2008

(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. o

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 583916101

1. Names of Reporting Persons  
Medarex, Inc.  
I.R.S. Employer Identification Number: 22-2822175
2. Check the Appropriate Box if a Member of a Group (See Instructions)
  - (a)
  - (b)

3. SEC Use Only

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4. Source of Funds (See Instructions)  
OO

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5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

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6. Citizenship or Place of Organization  
New Jersey

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7. Sole Voting Power  
5,312,539

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

8. Shared Voting Power  
0

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9. Sole Dispositive Power  
5,312,539

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10. Shared Dispositive Power  
0

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11. Aggregate Amount Beneficially Owned by Each Reporting Person  
5,312,539

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12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

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13. Percent of Class Represented by Amount in Row (11)  
35.6%

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14. Type of Reporting Person (See Instructions)  
CO

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**Item 1. Security and Issuer**

This Statement on Schedule 13D relates to the Common Stock, par value \$0.001 per share (the "Common Stock"), of AVANT Immunotherapeutics, Inc., a Delaware corporation ("AVANT"). AVANT's principal executive offices are located at 119 Fourth Avenue, Needham, Massachusetts 02494.

**Item 2. Identity and Background**

This statement is filed by Medarex, Inc., a New Jersey corporation ("Medarex" or the "Reporting Person"). Medarex is a biopharmaceutical company focused on the discovery, development and commercialization of fully human antibody-based therapeutic product candidates for the treatment of a wide range of diseases, including cancer, inflammation, autoimmune disorders and other life-threatening and debilitating diseases. Medarex's principal place of business and executive offices are located at 707 State Road, Princeton, New Jersey 08540.

The name, business address, and principal occupation of each executive officer and director of the Reporting Person is as set forth on Appendix A attached hereto. Each executive officer and director of the Reporting Person is a United States citizen.

During the past five years, neither Medarex nor, to Medarex's knowledge, any of the directors and executive officers of Medarex, (1) has been convicted in a criminal proceeding (excluding traffic violations and similar misdemeanors) or (2) was a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding were or are subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, U.S. federal or state securities laws or finding any violations with respect to such laws.

**Item 3. Source and Amount of Funds or Other Consideration**

On March 7, 2008, AVANT announced the closing of a business combination transaction (the "Merger") pursuant to a certain Agreement and Plan of Merger, dated October 19, 2007 (the "Merger Agreement") by and among AVANT, Callisto Merger Corporation ("Callisto"), a wholly-owned subsidiary of AVANT, and Celldex Therapeutics, Inc. ("Celldex"). Pursuant to the terms of the Merger Agreement, Callisto merged with and into Celldex, with Celldex as the surviving company and a wholly-owned subsidiary of AVANT. Medarex owned approximately 60% of Celldex prior to the Merger and, as a result of the Merger and pursuant to the terms of the Merger Agreement, Medarex received approximately 4.9 shares of AVANT's Common Stock in exchange for each share it held in Celldex prior to the Merger, subject to adjustment to account for a 1-for-12 reverse stock split approved by AVANT'S board of directors on the closing date of the Merger Agreement. As a result of the Merger and pursuant to the terms of the Merger Agreement, Medarex was issued 4,960,848 shares of AVANT Common Stock in exchange for the shares it previously held in Celldex and 351,691 shares of AVANT Common Stock in settlement of a prior dispute between Medarex and Celldex which obligation was assumed by AVANT in the Merger.

**Item 4. Purpose of Transaction**

The shares of Common Stock owned by Medarex were acquired as the result of the Merger described in Item 3 above. Medarex holds such shares of Common Stock for investment purposes.

As part of the terms of the Merger Agreement, AVANT assumed Celldex's obligations with respect to each outstanding option to purchase shares of Celldex common stock under Celldex's 2005 Equity Incentive Plan. Prior to the closing of the Merger, Charles Schaller, Chairman of the Board of Directors of Celldex and member of the Board of Directors of Medarex, held an option to purchase shares of Celldex common stock which was assumed by AVANT and is exercisable for up to 14,882 shares of AVANT Common Stock (on a post-split basis).

Except as described above, the Reporting Person does not have any plans or proposals which relate to or would result in:

- (1) the acquisition by any person of additional securities of AVANT or the disposition of additional securities of AVANT;
- (2) an extraordinary corporate transaction such as a merger, reorganization or liquidation of AVANT,

involving AVANT or any of its subsidiaries;

(3) the sale or transfer of a material amount of assets of AVANT or any of its subsidiaries;

(4) any change in the present board of directors or management of AVANT;

(5) any material change in AVANT's present capitalization or dividend policy;

(6) any other material change in AVANT's business or corporate structure;

(7) changes in AVANT's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of AVANT by any person;

(8) causing a class of securities of AVANT to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;

(9) a class of securities of AVANT becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act; or

(10) any action similar to any of those enumerated above.

Although there is no present intention to do so, the Reporting Person and/or any person named on Appendix A attached hereto may decide to make additional purchases or dispose of its Common Stock in the future either in the open market or in private transactions, subject to its or their evaluation of the AVANT's business, prospects and financial condition, the market for the Common Stock, other opportunities available to the Reporting Person or any person named on Appendix A attached hereto, prospects for the respective business' of the Reporting Person or any person named on Appendix A attached hereto, general economic conditions, money and stock market conditions and other future developments.

Depending upon the results of the reviews and the other factors mentioned above, the Reporting Person or any person named on Appendix A attached hereto, at any time, may decide to change its or his intention with respect to the acquisition and/or retention of shares of Common Stock, including, without limitation, a determination to increase, decrease or entirely dispose of its or his holdings of Common Stock, although neither the Reporting Person nor, to the knowledge of the Reporting Person, any of the persons named on Appendix A attached hereto has any current intention to do so.

**Item 5. Interest in Securities of the Issuer**

(a) – (b) Set forth below is information concerning the beneficial ownership of AVANT Common Stock, as determined in accordance with Rule 13d-3(d) of the Securities and Exchange Act, by the Reporting Person and each other person for which disclosure is required under this Schedule 13D pursuant to General Instruction C.

	<u>Medarex, Inc.</u>
<b>Beneficial Ownership</b>	5,312,539
<b>Percentage of Class</b>	35.6
<b>Sole Voting Power</b>	5,312,539
<b>Shared Voting Power</b>	-0-

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<b>Sole Dispositive Power</b>	5,312,539
<b>Shared Dispositive Power</b>	-0-

Except as noted in the above table, none of the individuals listed on [Appendix A](#) hereto beneficially own any securities of AVANT.

Medarex may be deemed to have sole voting power and the sole power to dispose of the Common Stock acquired by Medarex in the Merger. To the extent that each of Medarex’s directors may be deemed to share the power to vote (and direct the vote of) or dispose of (or direct the disposition of) the shares of Common Stock owned of record by Medarex, each such director disclaims beneficial ownership of the shares of Common Stock owned by Medarex.

(c) Except as otherwise described in this Schedule 13D, there have been no transactions in the Common Stock of AVANT by the Reporting Person or any of its executive officers or directors in the sixty days prior to the date of filing this Schedule 13D.

(d) Not applicable.

(e) Not applicable.

#### **Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer**

##### *Lock-up Agreements*

Under the terms of the Merger Agreement, Medarex and each continuing executive officer and director of AVANT and Celldex were required to deliver to AVANT a “lock-up” agreement (each, a “Lock-up Agreement”). Pursuant to Medarex’s Lock-up Agreement, a portion of the shares of Common Stock issued to Medarex in the Merger may not be, directly or indirectly, sold for a period of three months following completion of the Merger and the balance of the shares may not be, directly or indirectly, sold for a period of twelve months following the closing of the Merger. Mr. Schaller may not, directly or indirectly, sell any shares of Common Stock, including any shares of Common Stock issuable upon exercise of his option, during the six month period following the closing of the Merger. The description contained in this Schedule 13D of each Lock-up Agreement is qualified in its entirety by reference to the full text of each Lock-up Agreement, a copy of which is incorporated by reference in this Schedule 13D — See Exhibits 2 and 3.

##### *Board Representative*

Pursuant to the Merger Agreement, Mr. Schaller was designated as a member of AVANT’s board of directors simultaneous with the closing of the Merger. Mr. Schaller is also a member of the board of directors of Medarex.

#### **Item 7. Material to be Filed as Exhibits**

<u>Exhibit Number</u>	<u>Exhibit Description</u>
1†	Agreement and Plan of Merger dated as of October 19, 2007 by and among AVANT Immunotherapeutics, Inc., Callisto Merger Corporation and Celldex Therapeutics, Inc.
2	Lock-up Agreement between Medarex, Inc. and AVANT Immunotherapeutics, Inc.

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3 Lock-up Agreement between Charles R. Schaller and AVANT Immunotherapeutics, Inc.

†Incorporated by reference to Annex A of the Registration Statement on Form S-4 (File No. 333-148291), filed by AVANT Immunotherapeutics, Inc. with the SEC on December 12, 2007.

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## Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

**MEDAREX, INC.**

Date: March 17, 2008

/s/ Howard H. Pien

Howard H. Pien,  
President and Chief Executive Officer

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## APPENDIX A

### LIST OF EXECUTIVE OFFICERS AND DIRECTORS OF THE REPORTING PERSON

#### Directors of Medarex, Inc.

##### **Patricia M. Danzon**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Celia Moh Professor, Health Care Systems, Insurance and Risk Management at the Wharton School of the University of Pennsylvania.

##### **Robert C. Dinerstein**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Mr. Dinerstein has served as the Global Co-Chair and New York Chair of the Financial Institutions Practice at Greenberg Traurig, LLP, an international law firm, where he focuses on banking and securities regulation, new product development and international capital markets issues.

##### **Abhijeet J. Lele**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Managing Member of EGS Healthcare Capital Partners, a venture capital firm that focuses on investments in biopharmaceutical, specialty pharmaceutical and medical device companies.

##### **Irwin Lerner** (Chairman)

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Independent consultant.

##### **Marc Rubin**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: President and Chief Executive Officer of Titan Pharmaceutical, Inc., a biopharmaceutical company publicly traded on the American Stock Exchange.

##### **Ronald J. Saldarini**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Associate at Naimark & Associates, a healthcare consulting firm.

##### **Charles R. Schaller**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Chemical industry management consultant.

##### **Julius A. Vida**

Address: 707 State Road, Princeton, NJ 08540

Principal Employment: Pharmaceutical consultant with VIDA International Pharmaceutical Consultants.

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#### Executive Officers of Medarex, Inc.†

##### **Ursula B. Bartels**

Senior Vice President, General Counsel and Secretary

##### **Nils Lonberg**

Senior Vice President and Scientific Director

##### **W. Bradford Middlekauff**

Senior Vice President, Strategic Planning

##### **Geoffrey M. Nichol**

Senior Vice President, Product Development

##### **Ronald A. Pepin**

Senior Vice President, Business Development

**Howard H. Pien**‡

President and Chief Executive Officer

**Christian S. Schade**

Senior Vice President, Finance and Administration, and Chief Financial Officer

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† The principal employment of each executive officer is with Medarex, Inc. The business address of each executive officer with Medarex is: Medarex, Inc. 707 State Road, Princeton, NJ 08540.

‡ Mr. Pien is also a member of the Board of Directors of Medarex, Inc.

October 19, 2007

Avant Immunotherapeutics, Inc.  
 119 Fourth Avenue  
 Needham, MA 02194

Re: Lockup Agreement (the "Agreement")

Ladies and Gentlemen:

1. The undersigned stockholder of Celldex Therapeutics, Inc., Delaware corporation ("**Celldex**"), understands that Avant Immunotherapeutics, Inc., a Delaware corporation ("**Avant**"), and Callisto Merger Corporation, a Delaware corporation and a wholly-owned subsidiary of Avant (the "**Merger Sub**"), have entered into an Agreement and Plan of Merger, dated as of October 19, 2007 (as the same may be amended and restated from time to time, the "**Merger Agreement**"), with Celldex, pursuant to which the Merger Sub will merge with and into Celldex, and, in connection therewith, holders of the outstanding shares of capital stock of Celldex (the "**Shares**") will receive the right to receive shares of common stock of the Avant (the "**Avant Common Stock**") and, at the Effective Time (as defined in the Merger Agreement), options (the "**Celldex Options**") to purchase Celldex common stock outstanding will be assumed by Avant. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Merger Agreement.

2. In order to facilitate the transactions contemplated by the Merger Agreement, the undersigned agrees that the undersigned will not, during the applicable Restriction Period (as defined below), offer, sell, contract to sell, transfer, pledge, make any short sale, hypothecate or otherwise dispose of, or reduce the undersigned's interest in or risk relating to (each, a "**Transfer**") any shares of Avant Common Stock: (i) issued to the undersigned in connection with the Merger in accordance with the terms of the Merger Agreement; (ii) issued to the undersigned upon the exercise of any Celldex Options assumed by Avant in accordance with the terms of the Merger Agreement; or (iii) otherwise acquired or beneficially owned by the undersigned as a result of the transactions contemplated by the Merger Agreement (collectively, the "**Restricted Shares**"). For purposes of this Agreement, the term "**Restriction Period**" shall mean (i) with respect to the Restricted Shares received by the undersigned pursuant to that certain Settlement Agreement, dated as of October 19, 2007 by and between the undersigned and Celldex (the "**Carve-Out Shares**"), three months after the Closing Date and (ii) with respect to the remaining Restricted Shares, the first anniversary of the Closing Date. The undersigned will not have any restrictions under this Agreement regarding the Transfer of the undersigned's Restricted Shares after the expiration of the applicable Restriction Period; provided, however, that the undersigned shall comply with all applicable laws, including Rule 144 promulgated

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under the Securities Act of 1933, in connection with any Transfer of Carve-Out Shares prior to the first anniversary of the Closing Date.

The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or reasonably expected to lead to, or result in, a sale or disposition of the Shares even if such shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale (whether or not against the box) or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such shares. Notwithstanding the foregoing, nothing in this agreement shall prohibit (i) any grant or exercise of options to purchase Common Stock pursuant to Avant's option plans or (ii) the conversion of any equity security held by the undersigned into Common Stock.

3. Notwithstanding the foregoing, the restrictions on Transfer set forth in this Agreement shall not apply to (i) transactions relating to shares of Avant Common Stock or other securities acquired in open market transactions after the Closing Date, or (ii) the following Transfers: (A) *bona fide* gifts to family members (or trusts for the direct or indirect benefit of family members); (B) *bona fide* charitable contributions of Restricted Shares made by the holder of such Restricted Shares; or (C) Transfers to "affiliates", limited partners, members or stockholders of the undersigned; provided that in the case of any Transfer pursuant to clause (A), (B) or (C), each transferee agrees in writing as a condition precedent to such Transfer to be bound by the terms hereof. The term "affiliate" shall have the meaning given such term in Rule 144 under the Securities Act of 1933, as amended.

4. The undersigned also agrees and consents to Avant entering stop transfer instructions with its transfer agent and registrar against the Transfer of the Shares except in compliance with the foregoing restrictions.

5. The undersigned further represents and agrees that the undersigned has not taken and will not take, directly or indirectly, any action which is designed to or which has constituted or which would reasonably be expected to cause or result in stabilization or manipulation of the price of any security of Avant to facilitate the sale or resale of the Shares, or which has otherwise constituted or will constitute any prohibited bid for or purchase of the Shares or any related securities.

6. It is understood that if the Merger Agreement shall be terminated in accordance with the provisions thereof at any time prior to the Closing Date, this Agreement shall terminate.

7. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware. This Agreement may not be amended, modified, revoked or terminated

in any respect without the written consent of the undersigned and Avant. This Agreement shall be binding upon the undersigned and the undersigned's heirs, successors and assigns.

This agreement is executed as of the date first set forth above.

Very truly yours,

MEDAREX, INC.

By: /s/ Howard H. Pien  
Name: Howard H. Pien  
Title: President and CEO  
(if applicable)

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October 19, 2007

AVANT Immunotherapeutics, Inc.  
119 Fourth Avenue  
Needham, MA 02194

Re: Lockup Agreement (the "Agreement")

Ladies and Gentlemen:

1. The undersigned stockholder of Celldex Therapeutics, Inc., Delaware corporation ("Celldex"), understands that AVANT Immunotherapeutics, Inc., a Delaware corporation ("AVANT"), and Callisto Merger Corporation., a Delaware corporation and a wholly-owned subsidiary of AVANT (the "**Merger Sub**"), have entered into an Agreement and Plan of Merger, dated as of October 19, 2007 (as the same may be amended and restated from time to time, the "**Merger Agreement**"), with Celldex, pursuant to which the Merger Sub will merge with and into Celldex, and, in connection therewith, holders of the outstanding shares of capital stock of Celldex (the "**Shares**") will receive the right to receive shares of common stock of the AVANT (the "**AVANT Common Stock**") and, at the Effective Time (as defined in the Merger Agreement), options (the "**Celldex Options**") to purchase Celldex common stock outstanding will be assumed by AVANT. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Merger Agreement.

2. In order to facilitate the transactions contemplated by the Merger Agreement, the undersigned agrees that the undersigned will not, until the six-month anniversary of the Closing Date (the "**Restriction Period**"), offer, sell, contract to sell, transfer, pledge, make any short sale, hypothecate or otherwise dispose of, or reduce the undersigned's interest in or risk relating to (each, a "**Transfer**") any shares of AVANT Common Stock: (i) issued to the undersigned in connection with the Merger in accordance with the terms of the Merger Agreement; (ii) issued to the undersigned upon the exercise of any Celldex Options assumed by AVANT in accordance with the terms of the Merger Agreement; or (iii) otherwise acquired or beneficially owned by the undersigned as a result of the transactions contemplated by the Merger Agreement (collectively, the "**Restricted Shares**"). The undersigned will not have any restrictions under this Agreement regarding the Transfer of the undersigned's Restricted Shares after the expiration of the Restriction Period.

The foregoing restriction is expressly agreed to preclude the undersigned from engaging in any hedging or other transaction which is designed to or reasonably expected to lead to, or result in, a sale or disposition of the Shares even if such shares would be disposed of by someone other than the undersigned. Such prohibited hedging or other transactions would include without limitation any short sale (whether or not against the box) or any purchase, sale or grant of any right (including without limitation any put or call option) with respect to any of the Shares or with respect to any security that includes, relates to, or derives any significant part of its value from such shares. Notwithstanding the foregoing, nothing in this agreement shall prohibit (i) any grant or exercise of options to purchase Common Stock pursuant to AVANT's option plans or (ii) the conversion of any equity security held by the undersigned into Common Stock.

3. Notwithstanding the foregoing, the restrictions on Transfer set forth in this Agreement shall not apply to (i) transactions relating to shares of AVANT Common Stock or other securities acquired in open market transactions after the Closing Date, or (ii) the following Transfers: (A) *bona fide* gifts to family members (or trusts for the direct or indirect benefit of family members); (B) *bona fide* charitable contributions of Restricted Shares made by the holder of such Restricted Shares; or (C) Transfers to "affiliates", limited partners, members or stockholders of the undersigned; provided that in the case of any Transfer pursuant to clause (A), (B) or (C), each transferee agrees in writing as a condition precedent to such Transfer to be bound by the terms hereof. The term "affiliate" shall have the meaning given such term in Rule 144 under the Securities Act of 1933, as amended.

4. The undersigned also agrees and consents to AVANT entering stop transfer instructions with its transfer agent and registrar against the Transfer of the Shares except in compliance with the foregoing restrictions.

5. The undersigned further represents and agrees that the undersigned has not taken and will not take, directly or indirectly, any action which is designed to or which has constituted or which would reasonably be expected to cause or result in stabilization or manipulation of the price of any security of AVANT to facilitate the sale or resale of the Shares, or which has otherwise constituted or will constitute any prohibited bid for or purchase of the Shares or any related securities.

6. It is understood that if the Merger Agreement shall be terminated in accordance with the provisions thereof at any time prior to the Closing Date, this Agreement shall terminate.

7. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware. This Agreement may not be amended, modified, revoked or terminated in any respect without the written consent of the undersigned and AVANT. This Agreement shall be binding upon the undersigned and the undersigned's heirs, successors and assigns.

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This agreement is executed as of the date first set forth above.

Very truly yours,

CHARLES R. SCHALLER  
\_\_\_\_\_  
(print name of stockholder above)

By: /s/ Charles R. Schaller  
\_\_\_\_\_  
Name: CHARLES R. SCHALLER

