

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G
(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS
FILED PURSUANT TO RULES 13D-1 (b)(c), AND (d)
AND AMENDMENTS THERETO FILED
PURSUANT TO 13d-2(b)

(Amendment No. 4)*

AVANT IMMUNOTHERAPEUTICS, INC.

(Name of Issuer)

Common Stock, \$.001 par value

(Title of Class of Securities)

053491106

(CUSIP Number)

* 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 the disclosures provided in a prior cover page.

The information required in 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).

(Continued on following page(s))
Page 1 of 17 Pages

CUSIP No. 053491106

13G

Page 2 of 19 Pages

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

HealthCare Ventures II, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5 SOLE VOTING POWER

6 SHARED VOTING POWER
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

127,395

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

127,395

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

127,395

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

|_ |

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

.23%

12 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

HealthCare Partners II, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

127,395

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

127,395

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

127,395

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

.23%

12 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

HealthCare Ventures III, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

2,046,908

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

2,046,908

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,046,908

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

3.72%

12 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

HealthCare Partners III, L.P.

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Delaware

5 SOLE VOTING POWER

6 SHARED VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

2,046,908

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

2,046,908

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,046,908

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

3.72%

12 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

HealthCare Ventures IV, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

601,099

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

601,099

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

601,099

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

1.09%

12 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

HealthCare Partners IV, L.P.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

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4 CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

601,099

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

601,099

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

601,099

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

1.09%

12 TYPE OF REPORTING PERSON*

PN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

James H. Cavanaugh, Ph.D.

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)

(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

2,775,402

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

2,775,402

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,775,402

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.04%

12 TYPE OF REPORTING PERSON*

IN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

Harold R. Werner

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

2,775,402

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

2,775,402

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,775,402

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.04%

12 TYPE OF REPORTING PERSON*

IN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

William Crouse

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

2,775,402

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

2,775,402

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,775,402

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.04%

12 TYPE OF REPORTING PERSON*

IN

*SEE INSTRUCTIONS BEFORE FILLING OUT

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

John W. Littlechild

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)

(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

United States

5 SOLE VOTING POWER

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

2,775,402

7 SOLE DISPOSITIVE POWER

8 SHARED DISPOSITIVE POWER

2,775,402

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,775,402

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.04%

12 TYPE OF REPORTING PERSON*

IN

*SEE INSTRUCTIONS BEFORE FILLING OUT

Item 1.

- (a) Name of Issuer:
Avant Immunotherapeutics, Inc.
- (b) Address of Issuer's Principal Executive Offices:
119 Fourth Avenue
Needham, Massachusetts 02494-2725

Item 2.

- (a) Name of Person Filing:
HealthCare Ventures II, L.P. ("HCV II"), HealthCare Partners II, L.P. ("HCP II"), HealthCare Ventures III, L.P. ("HCV III"), HealthCare Partners III, L.P. ("HCP III"), HealthCare Ventures IV, L.P. ("HCV IV"), HealthCare Partners IV, L.P. ("HCP IV"), Dr. Cavanaugh and Messrs. Werner, Littlechild and Crouse(1). See attached Exhibit A which is a copy of their agreement in writing to file this statement on behalf of each of them.
- (b) Address of Principal Business Office or, if none, Residence:
The business address for HCV II, HCP II, HCV III, HCP III, HCV IV, HCP IV and Dr. Cavanaugh and Messrs. Werner and Crouse is 44 Nassau Street, Princeton, New Jersey 08542. The business address for Messr. Littlechild is One Kendall Square, Building 300, Cambridge, Massachusetts 02139.
- (c) Citizenship:
HCV II, HCP II, HCV III, HCP III, HCV IV and HCP IV are limited partnerships organized under the laws of the State of Delaware. Dr. Cavanaugh and Messrs. Werner, Littlechild, and Crouse are each United States citizens.

- - - - -
(1) Dr. Cavanaugh and Messrs. Werner, Littlechild and Crouse are general partners of HCP II, HCP III and HCP IV, which are the general partners of HCV II, HCV III and HCV IV, respectively, the record holders of shares of the Issuer's securities reported hereto.

(d) Title of Class of Securities:

Common Stock, par value \$.001 (the "Shares").

(e) CUSIP Number:

053491106

Item 3. If this statement is filed pursuant to Rule 13d-1(b), or 13d-2(b), check whether the person filing is a:

Inapplicable.

Item 4. Ownership.

(a) Amount Beneficially Owned:

As of December 31, 2000: HCV II and HCP II beneficially owned 127,395 Shares, all of which are immediately exercisable warrants to purchase the same number of Shares of the Issuer's Common Stock; HCV III and HCP III beneficially owned 2,046,908 Shares, consisting of 1,753,971 Shares of the Issuer's Common Stock and immediately exercisable warrants to purchase 292,937 Shares of the Issuer's Common Stock; HCV IV and HCP IV beneficially owned 601,099 Shares, consisting of 515,074 Shares of the Issuer's Common Stock and immediately exercisable warrants to purchase 86,025 Shares of the Issuer's Common Stock; Dr. Cavanaugh and Messrs. Werner, Littlechild and Crouse beneficially owned 2,775,402 Shares, consisting of 2,269,045 Shares of the Issuer's Common Stock and immediately exercisable warrants to purchase 506,357 Shares of the Issuer's Common Stock.

(b) Percent of Class:

As of December 31, 2000: the 127,395 immediately exercisable warrants to purchase the same number of Shares of the Issuer's Common Stock beneficially owned by HCV II and HCP II constitute .23% of Issuer's Shares outstanding; the 2,046,908 Shares, which includes the warrants to purchase the Shares of the Issuer's Common Stock, beneficially owned by HCV III and HCP III constitute 3.72% of the Issuer's Shares outstanding; the 601,099 Shares, which includes the warrants to purchase the Shares of the Issuer's Common Stock, beneficially owned by HCV IV and HCP IV constitute 1.09% of the Issuer's Shares outstanding; the 2,775,402 Shares, which includes the warrants to purchase the Shares of the Issuer's Common Stock, beneficially owned by Dr. Cavanaugh and Messrs. Werner, Littlechild and Crouse constitute 5.04% of the Issuer's Shares outstanding.

(c) Number of shares as to which such person has:

(i) sole power to vote or to direct the vote:

Not applicable.

(ii) shared power to vote or to direct the vote:

HCV II, HCP II, Dr. Cavanaugh and Messrs. Werner, Littlechild, and Crouse share the power to vote or direct the vote of those Shares owned by HCV II.

HCV III, HCP III, Dr. Cavanaugh and Messrs. Werner, Littlechild, and Crouse share the power to vote or direct the vote of those Shares owned by HCV III.

HCV IV, HCP IV, Dr. Cavanaugh and Messrs. Werner, Littlechild, and Crouse share the power to vote or direct the vote of those Shares owned by HCV IV.

(iii) sole power to dispose or to direct the disposition of:

Not applicable.

(iv) shared power to dispose of or to direct the disposition of:

HCV II, HCP II, Dr. Cavanaugh and Messrs. Werner and Littlechild share the power to dispose of or direct the disposition of those Shares owned by HCV II.

HCV III, HCP III, Dr. Cavanaugh and Messrs. Werner, Littlechild and Crouse share the power to dispose of or direct the disposition of those Shares owned by HCV III.

HCV IV, HCP IV, Dr. Cavanaugh and Messrs. Werner, Littlechild and Crouse share the power to dispose of or direct the disposition of those Shares owned by HCV IV.

Item 5. Ownership of Five Percent or less of a Class:

Inapplicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person:

Inapplicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company:

Inapplicable.

Item 8. Identification and Classification of Members of the Group:

Inapplicable.

Item 9. Notice of Dissolution of Group:

Inapplicable.

Item 10. Certification:

Inapplicable.

SIGNATURES

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.

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Ventures II, L.P.,
by its General Partner, HealthCare Partners II, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Partners II, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Ventures III, L.P.,
by its General Partner, HealthCare Partners III, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Partners III, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Ventures IV, L.P.,
by its General Partner, HealthCare Partners IV, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Partners IV, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

James H. Cavanaugh, Ph.D.

Dated: February 2, 2001
Princeton, New Jersey

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

Harold R. Werner

Dated: February 2, 2001
Cambridge, Massachusetts

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

John W. Littlechild

Dated: February 2, 2001
Princeton, New Jersey

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

William Crouse

EXHIBIT A

AGREEMENT

JOINT FILING OF SCHEDULE 13G

The undersigned hereby agree to jointly prepare and file with regulatory authorities a Schedule 13G and any future amendments thereto reporting each of the undersigned's ownership of securities of Avant Immunotherapeutics, Inc. and hereby affirm that such Schedule 13G is being filed on behalf of each of the undersigned.

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Ventures II, L.P.,
by its General Partner, HealthCare
Partners II, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Partners II, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Ventures III, L.P.,
by its General Partner, HealthCare
Partners III, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Partners III, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Ventures IV, L.P.,
by its General Partner, HealthCare
Partners IV, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

HealthCare Partners IV, L.P.

By: /s/ Jeffrey Steinberg

Administrative Partner

Dated: February 2, 2001
Princeton, New Jersey

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

James H. Cavanaugh, Ph.D.

Dated: February 2, 2001
Princeton, New Jersey

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

Harold R. Werner

Dated: February 2, 2001
Cambridge, Massachusetts

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

John W. Littlechild

Dated: February 2, 2001
Princeton, New Jersey

By: /s/ Jeffrey Steinberg, Attorney-in-Fact

William Crouse