MOMENTA PHARMACEUTICALS INC Form SC 13G/A February 12, 2007

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

Momenta Pharmaceuticals, Inc.
(Name of Issuer)
Common Stock, \$0.0001 par value
(Title of Class of Securities)
60877T100
(CUSIP Number)
December 31, 2006
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- o Rule 13d-1(b)
- o Rule 13d-1(c)
- þ Rule 13d-1(d)

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).

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^{*} 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.

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CUSIP No.
             60877T100
                                                                  Page
                                                                              of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Fund V, L.P.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Delaware
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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CUSIP No.
             60877T100
                                                                  Page
                                                                              of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Parallel Fund V-A, C.V.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        The Netherlands
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
                6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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CUSIP No. 60877T100 Page of 19 Pages NAMES OF REPORTING PERSONS: 1 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY): Atlas Venture Entrepreneurs Fund V, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS): 2 (a) o (b) o SEC USE ONLY: 3 CITIZENSHIP OR PLACE OF ORGANIZATION: 4 Delaware **SOLE VOTING POWER:** 5 NUMBER OF 0 shares **SHARES** SHARED VOTING POWER: 6 BENEFICIALLY OWNED BY 2,459,100 shares **EACH** SOLE DISPOSITIVE POWER: 7 **REPORTING PERSON** 0 shares WITH: SHARED DISPOSITIVE POWER: 8 2,459,100 shares AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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9

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CUSIP No.
             60877T100
                                                                  Page
                                                                              of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Fund VI, L.P.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Delaware
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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9

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CUSIP No.
             60877T100
                                                                  Page
                                                                              of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Entrepreneurs Fund VI, L.P.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Delaware
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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9

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CUSIP No.
             60877T100
                                                                  Page
                                                                             of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Fund VI GmbH & Co. KG
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Germany
                    SOLE VOTING POWER:
               5
 NUMBER OF
                   0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                   2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
               7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
               8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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9

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CUSIP No.
             60877T100
                                                                  Page
                                                                              of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Associates V, L.P.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Delaware
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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9

CUSIP No. 60877T100 Page of 19 Pages NAMES OF REPORTING PERSONS: 1 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY): Atlas Venture Associates VI, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS): 2 (a) o (b) o SEC USE ONLY: 3 CITIZENSHIP OR PLACE OF ORGANIZATION: 4 Delaware **SOLE VOTING POWER:** 5 NUMBER OF 0 shares **SHARES** SHARED VOTING POWER: 6 **BENEFICIALLY** OWNED BY 2,459,100 shares **EACH** SOLE DISPOSITIVE POWER: 7 REPORTING **PERSON** 0 shares WITH: SHARED DISPOSITIVE POWER: 8 2,459,100 shares AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

PN

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CUSIP No.
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        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Associates V, Inc.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Delaware
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

CO

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CUSIP No.
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                                                                         11
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Atlas Venture Associates VI, Inc.
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Delaware
                    SOLE VOTING POWER:
                5
 NUMBER OF
                    0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

CO

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9

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CUSIP No.
             60877T100
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                                                                        12
                                                                             of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Axel Bichara
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        Germany
                    SOLE VOTING POWER:
               5
 NUMBER OF
                   0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
               7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
               8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

IN

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9

```
CUSIP No.
             60877T100
                                                                 Page
                                                                              of 19 Pages
                                                                        13
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Jean-Francois Formela
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        France
                    SOLE VOTING POWER:
                5
 NUMBER OF
                   0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                    2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

IN

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9

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CUSIP No.
             60877T100
                                                                 Page
                                                                        14
                                                                              of 19 Pages
        NAMES OF REPORTING PERSONS:
  1
        I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY):
        Christopher Spray
        CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS):
  2
        (a) o
        (b) o
        SEC USE ONLY:
  3
        CITIZENSHIP OR PLACE OF ORGANIZATION:
  4
        United Kingdom
                    SOLE VOTING POWER:
                5
 NUMBER OF
                   0 shares
   SHARES
                    SHARED VOTING POWER:
               6
BENEFICIALLY
  OWNED BY
                   2,459,100 shares
    EACH
                    SOLE DISPOSITIVE POWER:
                7
 REPORTING
   PERSON
                    0 shares
    WITH:
                    SHARED DISPOSITIVE POWER:
                8
                    2,459,100 shares
        AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON:
```

2,459,100 shares

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS):

o

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

11

6.82%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS):

12

IN

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Schedule 13G

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Item 1(a). Name of Issuer: Momenta Pharmaceuticals, Inc.

Item 1(b). Address of Issuer s Principal Executive Offices

Item 2(a). Name of Person Filing

Item 2(b). Address of Principal Business Office or, if None, Residence

Item 2(c). Citizenship

Item 2(d). Title of Class of Securities

Item 2(e). CUSIP Number: 60877T100

Item 3. If This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the

Person Filing is a

Item 4. Ownership.

Item 5. Ownership of Five Percent or Less of a Class.

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

Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported

on By the Parent Holding Company

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

Item 9. Notice of Dissolution of Group.

Item 10. Certification.

SIGNATURE

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Item 1(a). Name of Issuer: Momenta Pharmaceuticals, Inc.

Item 1(b). Address of Issuer s Principal Executive Offices:

675 West Kendall Street, Cambridge, MA 02142

Item 2(a). Name of Person Filing:

Atlas Venture Fund V, L.P. (Atlas V), Atlas Venture Parallel Fund V-A, C.V. (Atlas V-A), Atlas Venture Entrepreneurs Fund V, L.P. (AVE V and together with Atlas V and Atlas V-A, the Atlas V Funds), Atlas Venture Fund VI, L.P. (Atlas VI), Atlas Venture Fund VI GmbH & Co. KG (Atlas VI GmbH), Atlas Venture Entrepreneurs Fund VI, L.P. (AVE VI), Atlas Venture Associates V, L.P. (AVA V LP), Atlas Venture Associates VI, L.P. (AVA VI LP), Atlas Venture Associates VI, Inc. (AVA VI Inc.), Axel Bichara (Bichara), Jean-Francois Formela (Formela) and Christopher Spray (Spray). Atlas V, Atlas V-A, AVE V, Atlas VI, Atlas VI GmbH and AVE VI are referred to individually herein as a Fund and collectively as the Funds . The persons and entities named in this Item 2(a) are referred to individually herein as a Filing Person and collectively as the Filing Persons

AVA V Inc. is the sole general partner of AVA V LP. AVA V LP is the sole general partner of the Atlas V Funds. Messrs. Bichara, Formela and Spray are directors of AVA V Inc.

AVA VI Inc. is the sole general partner of AVA VI LP. AVA VI LP is the sole general partner of Atlas VI and AVE VI and the managing limited partner of Atlas VI GmbH. Messrs. Bichara, Formela and Spray are directors of AVA VI Inc.

Item 2(b). Address of Principal Business Office or, if None, Residence:

The principal business office of each of the Filing Persons is:

890 Winter Street, Suite 320

Waltham, MA 02451

Item 2(c). <u>Citizenship</u>: Atlas V, AVE V, Atlas VI, AVE VI, AVA V LP and AVA VI LP is each a limited partnership formed under the laws of the state of Delaware. AVA V Inc. and AVA VI Inc. is each a corporation formed under the laws of the state of Delaware. Atlas V-A is a limited partnership formed under the laws of The Netherlands. Atlas VI GmbH is a limited partnership formed under the laws of Germany. Mr. Bichara is a citizen of Germany. Mr. Formela is a citizen of France. Mr. Spray is a citizen of the United Kingdom.

Item 2(d). Title of Class of Securities: Common Stock, \$0.0001 par value per share (the Common Stock).

Item 2(e). CUSIP Number: 60877T100

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Item 3. <u>If This Statement is Filed Pursuant to Rule 13d-1(b)</u>, or 13d-2(b) or (c), Check Whether the Person Filing is a: Not Applicable.

Item 4. Ownership.

Amount Beneficially Owned: Atlas V is the record holder of 778,743 shares of Common Stock as of (a) December 31, 2006 (the Atlas V Shares). Atlas V-A is the record holder of 193,840 shares of Common Stock as of December 31, 2006 (the Atlas V-A Shares). AVE V is the record holder of 12,919 shares of Common Stock as of December 31, 2006 (the AVE V Shares). Atlas VI is the record holder of 1,404,928 shares of Common Stock as of December 31, 2006 (the Atlas VI Shares). Atlas VI GmbH is the record holder of 25,725 shares of Common Stock as of December 31, 2006 (the Atlas VI GmbH Shares). AVE VI is the record holder of 42,945 shares of Common Stock as of December 31, 2006 (the AVE VI Shares). By virtue of their relationship as affiliated limited partnerships, each Fund may be deemed to share the power to direct the disposition and vote the Atlas V Shares, the Atlas V-A Shares, the AVE V Shares, the Atlas VI Shares, the Atlas VI GmbH Shares and the AVE VI Shares, for an aggregate of 2,459,100 shares of Common Stock (the Record Shares). As general partner or managing limited partner, as the case may be, of certain of the Funds, and by virtue of the Funds relationship as affiliated limited partnerships, each of AVA V LP and AVA VI LP may also be deemed to beneficially own the Record Shares. As the general partner of AVA V LP and AVA VI LP respectively, AVA V Inc. and AVA VI Inc. may also be deemed to beneficially own the Record Shares. In their capacities as directors of AVA V Inc. and AVA VI Inc. each of Messrs. Bichara, Formela and Spray may be deemed to beneficially own the Record Shares.

Each Filing Person disclaims beneficial ownership of the Record Shares except for such shares, if any, such Filing Person holds of record.

(b) Percent of Class:

Each Filing Person: 6.82%

- (c) Number of shares as to which the person has:
 - (i) sole power to vote or to direct the vote:

0

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

2,459,100 for each Filing Person

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

0

(iv) shared power to dispose or direct the disposition of: Page 16 of 19 pages

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2,459,100 for each Filing Person

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable.

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

Not Applicable.

Item 7. <u>Identification and Classification of the Subsidiary which Acquired the Security Being Reported on By the Parent Holding Company.</u>

Not Applicable.

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

Not Applicable. The Filing Persons expressly disclaim membership in a group as used in Rule 13d-5(b)(1).

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certification.

Not Applicable. This statement on Schedule 13G is not filed pursuant to Rule 13d-1(b) or Rule 13d-1(c).

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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.

Dated: February 12, 2007 *

Axel Bichara

*

Jean-François Formela

*

Christopher Spray

its general partner

Atlas Venture Fund VI, L.P.
Atlas Venture Entrepreneurs Fund VI, L.P.
By: Atlas Venture Associates VI, L.P.
their general partner
By: Atlas Venture Associates VI, Inc.

By: *

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Fund VI GmbH & Co. KG By: Atlas Venture Associates VI, L.P. its managing limited partner By: Atlas Venture Associates VI, Inc. its general partner

By: *

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates VI, L.P. By: Atlas Venture Associates VI, Inc. its general partner

By: *

Name: Jeanne Larkin Henry

Title: Vice-President

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By:

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Atlas Venture Associates VI, Inc.

By: *

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Fund V, L.P.
Atlas Venture Entrepreneurs Fund V, L.P.
Atlas Venture Parallel Fund V-A, C.V.
By: Atlas Venture Associates V, L.P.
their general partner
By: Atlas Venture Associates V, Inc.

its general partner

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates V, L.P. By: Atlas Venture Associates V, Inc. its general partner

By: *

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates V, Inc.

By: *

Name: Jeanne Larkin Henry Title: Vice-President

* By: /s/ Jeanne Larkin Henry

By Jeanne Larkin Henry in her individual capacity and as Attorney-in-Fact

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Exhibit 1

AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities and Exchange Act of 1934, each of the undersigned hereby agree that only one statement containing the information required by Schedule 13G need be filed with respect to the ownership by each of the undersigned of shares of stock of Momenta Pharmaceuticals, Inc. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

Dated: February 12, 2007

*

Axel Bichara

*

Jean-Francois Formela

*

Christopher Spray

Atlas Venture Fund VI, L.P.
Atlas Venture Entrepreneurs Fund VI, L.P.
By: Atlas Venture Associates VI, L.P.
their general partner
By: Atlas Venture Associates VI, Inc.
its general partner

By:

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Fund VI GmbH & Co. KG By: Atlas Venture Associates VI, L.P. its managing limited partner By: Atlas Venture Associates VI, Inc. its general partner

By: *

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates VI, L.P. By: Atlas Venture Associates VI, Inc. its general partner

By:

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates VI, Inc.

By:

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Fund V, L.P.

Atlas Venture Entrepreneurs Fund V, L.P. Atlas Venture Parallel Fund V-A, C.V. By: Atlas Venture Associates V, L.P. their general partner

By: Atlas Venture Associates V, Inc.

its general partner

By:

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates V. L.P. By: Atlas Venture Associates V, Inc. its general partner

* By:

Name: Jeanne Larkin Henry Title: Vice-President

Atlas Venture Associates V, Inc.

By:

Name: Jeanne Larkin Henry Title: Vice-President

* By: /s/ Jeanne Larkin Henry

By Jeanne Larkin Henry in her individual capacity and as Attorney-in-Fact

Exhibit 2

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints each and any of Christopher J. Spray and Jeanne Larkin Henry his true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities (until revoked in writing) to sign any and all instruments, certificates and documents required to be executed on behalf of himself individually or on behalf of each or any of Atlas Venture Fund II, L.P., Atlas Venture Associates II, L.P., Atlas Venture Fund III, L.P., Atlas Venture Entrepreneurs Fund III, L.P., Atlas Venture Associates III, L.P., Atlas Venture Associates III, Inc., Atlas Venture Fund IV, L.P., Atlas Venture Entrepreneurs Fund IV, L.P., Atlas Venture Parallel Fund IV-A, C.V., Atlas Venture Parallel Fund IV-B, C.V., Atlas Venture Associates IV, L.P., Atlas Venture Associates IV, Inc., Atlas Venture Fund V, L.P., Atlas Venture Entrepreneurs Fund V, L.P., Atlas Venture Parallel Fund V-A, C.V., Atlas Venture Parallel Fund V-B, C.V., Atlas Venture Associates V, L.P., Atlas Venture Associates V, Inc., Atlas Venture Fund VI, L.P., Atlas Venture Entrepreneurs Fund VI, L.P., Atlas Venture Fund VI GmbH & Co. KG, Atlas Venture Associates VI, L.P. and Atlas Venture Associates VI, Inc. pursuant to sections 13 and 16 of the Securities Exchange Act of 1934, as amended (the Exchange Act), and any and all regulations promulgated thereunder, and to file the same, with all exhibits thereto, and any other documents in connection therewith, with the Securities and Exchange Commission, and with any other entity when and if such is mandated by the Exchange Act or by the By-laws of the National Association of Securities Dealers, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary fully to all intents and purposes as he might or could do in person thereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, this Power of Attorney has been signed as of the 8th day of February, 2005.

/s/ Axel Bichara

Axel Bichara

/s/ Jean-François Formela

Jean-Francois Formela

/s/ Christopher Spray

Christopher Spray