

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

**SCHEDULE 13G**

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

**Momenta Pharmaceuticals, Inc.**

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(Name of Issuer)

**Common Stock, \$0.0001 par value per share**

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(Title of Class of Securities)

**60877T 10 0**

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(CUSIP Number)

**December 31, 2004**

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(Date of Event Which Requires Filing of this Statement)

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

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

\*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).

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
CHP II, L.P.

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

---

3. SEC Use Only

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4. Citizenship or Place of Organization  
Delaware

---

5. Sole Voting Power

—

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power  
2,170,286

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7. Sole Dispositive Power

—

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8. Shared Dispositive Power  
2,170,286

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,170,286

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

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11. Percent of Class Represented by Amount in Row (9)  
8.5%

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12. Type of Reporting Person (See Instructions)  
PN

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
CHP II Management LLC

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(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  
2,170,286

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7. Sole Dispositive Power  
—

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8. Shared Dispositive Power  
2,170,286

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,170,286

---

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

---

11. Percent of Class Represented by Amount in Row (9)  
8.5%

---

12. Type of Reporting Person (See Instructions)  
OO

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
John K. Clarke

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

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(b)

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3. SEC Use Only

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4. Citizenship or Place of Organization  
United States Citizen

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5. Sole Voting Power  
—

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power  
2,170,286

---

7. Sole Dispositive Power  
—

---

8. Shared Dispositive Power  
2,170,286

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,170,286

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

---

11. Percent of Class Represented by Amount in Row (9)  
8.5%

---

12. Type of Reporting Person (See Instructions)  
IN

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
Brandon H. Hull

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

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(b)

---

3. SEC Use Only

---

4. Citizenship or Place of Organization  
United States Citizen

---

5. Sole Voting Power  
—

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power  
2,170,286

---

7. Sole Dispositive Power  
—

---

8. Shared Dispositive Power  
2,170,286

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,170,286

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

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11. Percent of Class Represented by Amount in Row (9)  
8.5%

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12. Type of Reporting Person (See Instructions)  
IN

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
John J. Park

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

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(b)

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3. SEC Use Only

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4. Citizenship or Place of Organization  
United States Citizen

---

5. Sole Voting Power  
—

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power  
2,170,286

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7. Sole Dispositive Power  
—

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8. Shared Dispositive Power  
2,170,286

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9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,170,286

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

---

11. Percent of Class Represented by Amount in Row (9)  
8.5%

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12. Type of Reporting Person (See Instructions)  
IN

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1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only)  
Lisa M. Skeete Tatum

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2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

---

3. SEC Use Only

---

4. Citizenship or Place of Organization  
United States Citizen

---

5. Sole Voting Power  
—

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

6. Shared Voting Power  
2,170,286

---

7. Sole Dispositive Power  
—

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8. Shared Dispositive Power  
2,170,286

---

9. Aggregate Amount Beneficially Owned by Each Reporting Person  
2,170,286

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10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

---

11. Percent of Class Represented by Amount in Row (9)  
8.5%

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12. Type of Reporting Person (See Instructions)  
IN

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**Item 1.**

- (a) Name of Issuer  
Momenta Pharmaceuticals, Inc.
- 
- (b) Address of Issuer's Principal Executive Offices  
675 West Kendall Street  
Cambridge, MA 02142
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**Item 2.**

- (a) Name of Person Filing  
(1) CHP II, L.P. ("CHP Partnership"); (2) CHP II Management LLC, general partner of CHP Partnership ("CHP LLC"); (3) John K. Clarke, managing member of CHP LLC; (4) Brandon H. Hull, managing member of CHP LLC; (5) John J. Park, managing member of CHP LLC; and (6) Lisa M. Skeete Tatum, managing member of CHP LLC. The persons and entities named in this Item 2(a) are referred to individually as a "Filing Person" and collectively as the "Filing Persons."
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- (b) Address of Principal Business Office or, if none, Residence  
The address of each of the reporting persons is:  
  
c/o Cardinal Partners  
221 Nassau Street  
Princeton, NJ 08542
- 
- (c) Citizenship  
CHP Partnership is a limited partnership organized under the laws of the State of Delaware. CHP LLC is a limited liability company organized under the laws of the State of Delaware. Each of Mr. Clarke, Mr. Hull, Mr. Park and Ms. Tatum is a citizen of the United States.
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- (d) Title of Class of Securities  
Common Stock, par value \$0.0001 per share (the "Common Stock").
- 
- (e) CUSIP Number  
60877T 10 0
- 

**Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:**

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with §240.13d-1(b)(1)(ii)(J).

Not applicable.

**Item 4. Ownership**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

- (a) Amount beneficially owned:  
CHP Partnership is the record holder of 2,170,286 shares of Common Stock; CHP LLC, as general partner of CHP Partnership, may be deemed to beneficially own 2,170,286 shares of Common Stock; Mr. Clarke, as managing member of CHP LLC, may be deemed

to beneficially own 2,170,286 shares of Common Stock; Mr. Hull, as managing member of CHP LLC, may be deemed to beneficially own 2,170,286 shares of Common Stock; Mr. Park, as managing member of CHP LLC, may be deemed to beneficially own 2,170,286 shares of Common Stock; and Ms. Tatum, as managing member of CHP LLC, may be deemed to beneficially own 2,170,286 shares of Common Stock. Each Filing Person disclaims beneficial ownership of such shares of Common Stock except for such shares of Common Stock, if any, such Filing Person holds of record.

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(b) Percent of class:

CHP Partnership:	8.5%
CHP LLC:	8.5%
Mr. Clarke:	8.5%
Mr. Hull:	8.5%
Mr. Park:	8.5%
Ms. Tatum:	8.5%

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

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(i) Sole power to vote or to direct the vote

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(ii) Shared power to vote or to direct the vote  
2,170,286 shares of Common Stock for each Filing Person.

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(iii) Sole power to dispose or to direct the disposition of

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(iv) Shared power to dispose or to direct the disposition of  
2,170,286 shares of Common Stock for each Filing Person.

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

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

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

Not applicable.

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person**

Not applicable.

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

Not applicable.

**Item 9. Notice of Dissolution of Group**

Not applicable.

**Item 10. Certification**  
Not applicable.

**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 14, 2005.

**CHP II, L.P.**

By: CHP II Management LLC,  
Its Sole General Partner

/s/ John J. Park

By: John J. Park  
Its: Managing Member

**CHP II MANAGEMENT LLC**

/s/ John J. Park

By: John J. Park  
Its: Managing Member

/s/ John K. Clarke

John K. Clarke

/s/ Brandon H. Hull

Brandon H. Hull

/s/ John J. Park

John J. Park

/s/ Lisa M. Skeete Tatum

Lisa M. Skeete Tatum

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, 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 the shares of Common Stock of Momenta Pharmaceuticals, Inc.

EXECUTED as a sealed instrument this 14 day of February, 2005.

**CHP II, L.P.**

By: CHP II Management LLC,  
Its Sole General Partner

/s/ John J. Park

By: John J. Park  
Its: Managing Member

**CHP II MANAGEMENT LLC**

/s/ John J. Park

By: John J. Park  
Its: Managing Member

/s/ John K. Clarke

John K. Clarke

/s/ Brandon H. Hull

Brandon H. Hull

/s/ John J. Park

John J. Park

/s/ Lisa M. Skeete Tatum

Lisa M. Skeete Tatum