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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NPS PHARMACEUTICALS, INC.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

87-0439579 (I.R.S. Employer Identification No.)

550 Hills Drive, 3rd Fl.

Bedminster, New Jersey 07921
(Address of Principal Executive Offices)

NPS Pharmaceuticals, Inc. 2010 Employee Stock Purchase Plan

(Full title of the plan)

Edward Stratemeier, Senior Vice President, Legal Affairs and General Counsel
NPS Pharmaceuticals, Inc.
550 Hills Drive, 3rd Fl.
Bedminster, New Jersey 07921
Telephone: (908) 450-5300

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

Lawrence Goodman, Esq.
Curtis, Mallet-Prevost, Colt & Mosle LLP
101 Park Avenue
New York, New York 10178
(212) 696-6000

(Counsel to the Registrant)

| Indicate by check mark whether the registrant | s a large accelerated file | er, an accelerated filer, a no | on-accelerated filer, o | r a smaller reportin | ig company. |
|---|----------------------------|--------------------------------|-------------------------|----------------------|--------------|
| See the definitions of "large accelerated filer," | "accelerated filer," and | "smaller reporting compar | y" in Rule 12b-2 of t | he Exchange Act. (| (Check one): |

Large accelerated filer ☐ Accelerated filer ☑

Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company □

CALCULATION OF REGISTRATION FEE

| Title of securities to be registered | Amount to be registered (1) | Proposed maximum offering price per share (2) | Proposed maximum aggregate offering price (2) | Amount of registration fee (2) |
|---|-----------------------------|--|--|--------------------------------|
| Common Stock, \$0.001 par value per share | 500,000 | \$ 6.67 | \$ 3,335,000 | \$ 237.79 |

⁽¹⁾ Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also includes additional securities that may be offered or issued as part of any stock split, stock dividend or similar transaction.

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⁽²⁾ Calculated using the average of the high and low sales price of the Registrant's Common Stock on the NASDAQ Global Market on July 28, 2010 pursuant to paragraph (c) and (h) of Rule 457 under the Securities Act.

INTRODUCTORY STATEMENT

This Registration Statement on Form S-8 is being filed by NPS Pharmaceuticals, Inc. (the "<u>Company</u>") to register 500,000 shares of the Company's Common Stock to be issued pursuant to the NPS Pharmaceuticals, Inc. 2010 Employee Stock Purchase Plan.

PART II.

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Company hereby incorporates by reference the following documents filed with the Commission:

- (a) The Company's Annual Report on Form 10-K filed for the fiscal year ended December 31, 2009, filed on March 11, 2010;
 - (b) The Company's Quarterly Reports on Form 10-Q filed on May 5, 2010 and August 4, 2010;
- (c) The Company's Current Reports on Form 8-K filed on January 22, 2010, March 2, 2010, April 16, 2010 (other than portions of such document deemed not to be filed), April 21, 2010, May 24, 2010 and July 22, 2010;
- (d) The description of the Company's Common Stock contained in the Company's Registration Statement on Form 8-A filed with the Commission on May 23, 1994, including any amendment or report filed with the Commission for the purpose of updating such description.

In addition, all documents filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (other than portions of such documents deemed not to be filed) after the date of this Registration Statement and prior to the filing of a post-effective amendment which indicates that all securities registered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of the filing of such documents.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Under Section 145 of the Delaware General Corporation Law, the Company has broad powers to indemnify its directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act of 1933, as amended (the "Securities Act"). The Company's Bylaws also provide that it will indemnify its directors and executive officers and may indemnify its other officers, employees and other agents to the fullest extent not prohibited by Delaware law.

The Company's Amended Certificate of Incorporation provides for the elimination of liability for monetary damages for breach of the directors' fiduciary duty of care to the Company and its stockholders. These provisions do not eliminate the directors' duty of care and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of loyalty to the Company, for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for any transaction from which the director derived an improper personal benefit and for payment of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provision does not affect a director's responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

The Company entered into agreements with its directors and executive officers that require it to indemnify such persons against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred, including expenses of a derivative action in connection with any proceeding, whether actual or threatened, to which any such person may be made a party by reason of the fact that such person is or was a director or officer of the Company or a director or officer of one of its affiliated enterprises, provided such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the Company's best interests and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification thereunder.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

| | | Incorporated by Reference | | | | _ |
|----------------|--|---------------------------|-----------|----------------|----------------|-------------------|
| Exhibit No. | Exhibit | Form | File No. | Filing Date | Exhibit No. | Filed Herewith |
| 4.1A | Amended and Restated Certificate of Incorporation of the Registrant. | 10-K | 000-23272 | 03/08/2005 | 3.1A | |
| 4.1B | Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Registrant, dated December 16, 1999. | S-3 | 333-45274 | 09/06/2000 | 3.3 | |
| 4.1C | Certificate of Amendment of the Amended and Restated Certificate of Incorporation of the Registrant, dated September 30, 2003. | 10-K | 000-23272 | 02/10/2004 | 3.1E | |
| 4.2A | Amended and Restated Bylaws of the Registrant. | 10-K | 000-23272 | 03/08/2005 | 3.1A | |
| 4.2B | Certificate of Adoption of Amendments to the Amended and Restated Bylaws of the Registrant, dated February 19, 2003. | 10-K | 000-23272 | 03/21/2003 | 3.2B | |
| 4.3 | Specimen Common Stock Certificate. | S-1 | 333-74318 | 01/21/1994 | 4.1 | |
| 5.1 | Opinion of Curtis, Mallet-Prevost, Colt & Mosle LLP as to the legality of the shares being registered. | | | | | X |
| 23.1 | Consent of Curtis, Mallet-Prevost, Colt & Mosle LLP (included in Exhibit 5.1). | | | | | X |
| 23.2 | Consent of KPMG LLP, Independent Registered Public Accounting Firm. | | | | | X |
| 24.1 | Power of Attorney (included on the signature page to this Registration Statement on Form S-8). | | | | | X |
| 99.1 | NPS Pharmaceuticals, Inc. 2010 Employee Stock Purchase Plan | 8-K | 000-23272 | 05/24/2010 | 10.1 | |

Item 9. Undertakings.

The undersigned Company hereby undertakes:

- (a) (1) To file, during any period in which offers or sales of the securities registered hereby are being made, a post-effective amendment to this Registration Statement:
 - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b), if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and
 - (iii) to include any material information with respect to the plan of distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement; provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Company pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.
 - (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
 - (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned Company hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Company's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in this Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Company of expenses incurred or paid by a director, officer or controlling person of the Company in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Bedminster, New Jersey, on this 4th day of August, 2010.

NPS Pharmaceuticals, Inc.

By: /s/ Francois Nader

Name: François Nader

Title: President and Chief Executive Officer

POWER OF ATTORNEY

KNOW BY ALL THESE PRESENTS, that each person whose signature appears below constitutes and appoints Edward Stratemeier and Luke M. Beshar, and each of them acting individually, as his or her true and lawful attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place, and stead, in any and all capacities, to sign any or all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all the exhibits thereto, and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact, each acting alone, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises as fully, to all intents and purposes, as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, each acting alone, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof. This Power of Attorney may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original and such counterparts shall together constitute one and the same instrument. Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---|--|----------------|
| /s/ Francois Nader Francois Nader | Director, President and Chief Executive Officer (principal executive officer) | August 4, 2010 |
| /s/ Luke M. Beshar Luke M. Beshar | Senior Vice President and Chief Financial Officer (principal financial and accounting officer) | August 4, 2010 |
| /s/ Michael W. Bonney Michael W. Bonney | Director | August 4, 2010 |
| /s/ Colin Broom Colin Broom | Director | August 4, 2010 |
| /s/ James G. Groninger James G. Groninger | Director | August 4, 2010 |

| /s/ Donald E. Kuhla Donald E. Kuhla | Director | August 4, 2010 |
|---|------------------------------------|----------------|
| /s/ Rachel R. Selisker Rachel R. Selisker | Director | August 4, 2010 |
| /s/ Peter G. Tombros Peter G. Tombros | Chairman of the Board of Directors | August 4, 2010 |

EXHIBIT INDEX

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