

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

-----  
FORM S-8  
REGISTRATION STATEMENT  
Under  
THE SECURITIES ACT OF 1933  
-----

ENZON PHARMACEUTICALS, INC.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction  
of incorporation or organization)

22-2372868  
(I.R.S. Employer  
Identification No.)

685 Route 202/206  
Bridgewater, New Jersey 08807  
(Address, including zip code,  
of registrant's principal executive offices)

-----  
Enzon Pharmaceuticals, Inc. 2001 Incentive Stock Plan  
(Full title of the plan)  
-----

Kenneth J. Zuerblis  
Chief Financial Officer  
Enzon Pharmaceuticals, Inc.  
685 Route 202/206  
Bridgewater, New Jersey 08807  
(908) 541-8600  
(Name, address and telephone number,  
including area code, of agent for service of process)

-----  
Copy to:  
Kevin T. Collins, Esq.  
Dorsey & Whitney LLP  
250 Park Avenue  
New York, NY 10177  
(212) 415-9200  
-----

CALCULATION OF REGISTRATION FEE

Title of securities to be registered(1)	Amount to be registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$0.01 par value per share	4,000,000 (2)	\$14.74 (3)	\$58,960,000	\$6,940
Total				\$6,940

(1) One preferred stock purchase right will attach to and trade with each share of common stock sold in the offering. These rights are also covered by this registration statement and the value attributable to them, if any,

is reflected in the market price of the common stock.

- (2) This Registration Statement covers the additional 4,000,000 shares of common stock approved by the stockholders of Enzon Pharmaceuticals, Inc. on December 2, 2003, that are issuable pursuant to Enzon Pharmaceuticals, Inc.'s 2001 Incentive Stock Plan, plus an indeterminate number of additional shares which may be offered and issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (3) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(h) and Rule 457(c) under the Securities Act of 1933, as amended, based upon the average of the high and low prices of the registrant's Common Stock on the Nasdaq National Market on December 14, 2004.

=====

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed with the Securities and Exchange Commission (the "Commission") by Enzon Pharmaceuticals, Inc. (the "Company"), are incorporated by reference in this Registration Statement, as of their respective dates:

- (a) the Company's Annual Report on Form 10-K/A for the fiscal year ended June 30, 2004;
- (b) the Company's Quarterly Reports on Form 10-Q and Form 10-Q/A for the quarter ended September 30, 2004 and the Company's Current Reports on Form 8-K filed on August 3, 2004, August 13, 2004, August 17, 2004, September 16, 2004, September 22, 2004, September 29, 2004, October 22, 2004, October 29, 2004, November 4, 2004, November 5, 2004, November 15, 2004, November 29, 2004, December 1, 2004, December 2, 2004 and December 15, 2004;
- (c) the description of the Company's Common Stock, par value \$.01 per share, as contained in a registration statement on Form 8-A filed on October 29, 1984, as amended by Form 8-A/A filed on October 15, 1990, including any amendment or report filed for the purpose of updating such description; and
- (d) the description of the Company's Series B Preferred Stock Purchase Rights as contained in a registration statement on Form 8-A filed on May 22, 2002, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 subsequent to the date hereof and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities remaining unsold shall be deemed to be incorporated by reference herein and to be a part hereof from the respective dates of 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.

Section 145 of the Delaware General Corporation Law (the "DGCL") empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that he

or she is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

## II-2

Section 145 also empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection with the defense or settlement of such action or suit if he or she acted under similar standards, except that no indemnification may be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless, and only to the extent that, the Delaware Court of Chancery or the court in which such action was brought shall determine that despite the adjudication of liability such person is fairly and reasonably entitled to indemnity, for such expenses which the Delaware Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director, officer, employee or agent of a corporation has been successful in the defense of any action, suit or proceeding referred to above or in the defense of any claim, issue or matter therein, he or she shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by him or her in connection therewith, that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and that the corporation is empowered to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation against any liability asserted against him or her in any such capacity or arising out of his or her status as such, whether or not the corporation would have the power to indemnify him or her against such liability under Section 145.

Section 102(b)(7) of the DGCL enables a corporation in its certificate of incorporation to limit the personal liability of members of its board of directors for violation of a director's fiduciary duty of care. Article 10 of the Company's certificate of incorporation, as authorized by Section 102(b)(7), provides that a director shall not be liable to the Company for breach of a fiduciary duty, except for liability:

- o for any breach of the director's duty of loyalty to the Company or the Company's stockholders;
- o for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- o under section 174 of the DGCL providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions;
- o for any transaction from which a director derived an improper benefit; or
- o for any act or omission occurring prior to the date when Article 10 became effective.

Section 8.1 of the Company's bylaws provides for the indemnification, to the fullest extent authorized by law, of any person made, or threatened to be made, a party to an action or proceeding, whether criminal, civil, administrative or investigative, against expenses, judgments, fines, and amounts paid in settlement incurred in connection with such action or proceeding, by reason of the fact that such person is or was a director or officer of the Company. The Company's Directors' and Officers' Liability Insurance, which is provided for under Section 8.3 of the Company's bylaws, insures directors and officers against any liability arising out of such person's status as a director

or officer, and insures the Company against its obligations to indemnify its directors and officers.

The Company's officers and directors have executed indemnity agreements which supplement the protections provided by the Company's certificate of incorporation and bylaws. These agreements require the Company to pay for any damages, judgments, settlements, costs and expenses for the defense of legal actions, claims, proceedings and appeals due to any actual or alleged breach of duty, neglect, error, misstatement, misleading statement, omission or other act done, suffered or wrongfully attempted by the officer or director. If the Company does not pay such costs and expenses within 90 days after it receives a written claim, such officers or directors may bring a suit against the Company to recover the unpaid amount of the claim. If such officer or director is successful, the Company will be required to pay for the expenses incurred relating to the claim.

II-3

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number -----	Description -----
4.1	Rights Agreement dated as of May 17, 2002 ("Rights Agreement") between the Company and Continental Stock Transfer & Trust Company, as Rights Agent (incorporated by reference to exhibit 4.2 to the Company's Form 8-A (File No. 000-12957) filed with the Commission on May 22, 2002).
5.1	Opinion of Dorsey & Whitney LLP.
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Dorsey & Whitney LLP (contained in Exhibit 5.1 to this Registration Statement).
24.1	Power of Attorney (included on signature page).

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales 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 of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the 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 the 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% 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 the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) above 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 registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the 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

II-4

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 registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act that is incorporated by reference in the 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 registrant pursuant to the foregoing provisions, or otherwise, the registrant 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 registrant of expenses incurred or paid by a director, officer or other controlling person of the registrant 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 registrant 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.

II-5

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 the City of Piscataway, State of New Jersey, on December 20, 2004.

ENZON PHARMACEUTICALS, INC.

By /s/ Kenneth J. Zuerblis

-----  
Name: Kenneth J. Zuerblis  
Title: Executive Vice President, Finance  
Chief Financial Officer  
(Acting Principal Executive  
Officer)

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Kenneth J. Zuerblis, his or her true and lawful attorney-in-fact and agent, with full powers 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 and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all

exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorney-in-fact and agent 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 such attorney-in-fact and agent, or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on December 20, 2004.

/s/ Kenneth J. Zuerblis ----- Kenneth J. Zuerblis	Executive Vice President, Finance, Chief Financial Officer and Corporate Secretary (principal executive officer, principal financial and accounting officer)
/s/ Jeffrey H. Buchalter ----- Jeffrey H. Buchalter	Chairman of the Board
/s/ Goran Ando ----- Goran Ando, M.D.	Director
/s/ Rolf A. Classon ----- Rolf A. Classon	Director
/s/ Rosina B. Dixon ----- Rosina B. Dixon, M.D.	Director
/s/ Robert LeBuhn ----- Robert LeBuhn	Director
/s/ Victor P. Micati ----- Victor P. Micati	Director

II-6

EXHIBIT INDEX TO  
FORM S-8

Enzon Pharmaceuticals, Inc.

Exhibit Number -----	Description -----
5.1	Opinion of Dorsey & Whitney LLP.
23.1	Consent of Independent Registered Public Accounting Firm

[LETTERHEAD OF DORSEY & WHITNEY LLP]

December 20, 2004

Enzon Pharmaceuticals, Inc.  
20 Kingsbridge Road  
Piscataway, NJ 08854

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to Enzon Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the registration under the Securities Act of 1933, as amended, on a registration statement on Form S-8 (the "Registration Statement") of an aggregate of 4,000,000 shares of the Company's common stock, \$0.01 par value per share (the "Shares"), which are to be offered and sold under the Company's 2001 Incentive Stock Plan (the "Plan"). This opinion is being delivered at your request.

We have examined such documents and reviewed such questions of law as we have considered necessary and appropriate for the purposes of our opinion. In conducting such examination, we have assumed (i) that all signatures are genuine, (ii) that all documents and instruments submitted to us as copies conform with the originals and (iii) the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. As to any facts material to this opinion, we have relied upon statements and representations of officers and other representatives of the Company and certificates of public officials and have not independently verified such facts.

Members of our firm are admitted to the Bar of the State of New York, and we do not express any opinion as to the laws of any jurisdiction other than the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance, delivery and payment therefor in accordance with the terms of the Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. The foregoing opinion is being furnished to you solely for your benefit and may not be relied upon by, nor may copies be delivered to, any other person without our prior written consent.

Very truly yours,

/s/ Dorsey & Whitney LLP

KTC

Consent of Independent Registered Public Accounting Firm

The Board of Directors  
Enzon Pharmaceuticals, Inc.:

We consent to the use of our report dated August 17, 2004, except as to note 2 of the notes to consolidated financial statements, which is as of November 10, 2004, with respect to the consolidated balance sheets of Enzon Pharmaceuticals, Inc. and subsidiaries as of June 30, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended June 30, 2004, and the related consolidated financial statement schedule incorporated herein by reference.

Our report refers to the Company's restatement of its consolidated financial statements for the year ended June 30, 2004, as discussed in note 2 of the notes to consolidated financial statements.

/s/ KPMG LLP

Short Hills, New Jersey  
December 16, 2004