

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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the  
Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement  
 Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))  
 Definitive Proxy Statement  
 Definitive Additional Materials  
 Soliciting Material Pursuant to §240.14a-12

**ENZON PHARMACEUTICALS, INC.**

(Name of Registrant as Specified in its Charter)

N/A

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.  
 Fee computed on table below per Exchange Act Rules 14a-6(I)(4) and 0-11.

(1) Title of each class of securities to which transaction applies:

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(2) Aggregate number of securities to which transaction applies:

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(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11: Set forth the amount on which the filing fee is calculated and state how it was determined.

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(4) Proposed maximum aggregate value of transaction:

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(5) Total fee paid.

- Check box if any part of the fee is offset as provided by Exchange Act rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid:

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(2) Form, Schedule or Registration Statement No.:

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(3) Filing Party:

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(4) Date Filed:

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**You May Vote Your Proxy When You View The  
Material On The Internet. You Will Be Asked  
To Follow The Prompts To Vote Your Shares.**

**ENZON  
PHARMACEUTICALS, INC.**  
c/o Continental Proxy Services – 8th Floor  
17 Battery Place, New York NY 10004-1123

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

**NOTICE OF ANNUAL MEETING  
OF STOCKHOLDERS**  
to be held on  
Tuesday, June 30, 2015

\*Stockholders are cordially invited to attend the 2015 Annual Meeting and vote in person.

Dear Stockholder,

The 2015 Annual Meeting of Stockholders (the “2015 Annual Meeting”) of Enzon Pharmaceuticals, Inc. (the “Company”) will be held at Club 101 on the Main Floor at 101 Park Avenue, New York, New York 10178 on Tuesday, June 30, 2015 at 11:00 a.m., local time.

Proposals to be considered at the 2015 Annual Meeting:

- (01) to elect three (3) directors, each for a one-year term expiring at the Company’s next annual meeting of stockholders and until such director’s successor is elected and qualified;
- (02) to ratify the adoption of the Company’s Section 382 rights agreement;
- (03) to ratify the appointment of EisnerAmper LLP as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2015;
- (04) to approve, on an advisory basis, the compensation of the Company’s named executive officers; and
- (05) to transact such other matters as may properly come before the 2015 Annual Meeting or any adjournment or postponement thereof.

The Company’s Board of Directors has proposed and recommends that stockholders vote “FOR” each of the nominees to the Board of Directors listed in Proposal No. 1 and “FOR” Proposals Nos. 2, 3 and 4.

Your electronic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated, and returned the proxy card.



***Vote Your Proxy on the Internet:***

Go to <http://www.cstproxyvote.com>  
Have your notice available when you access the above website.  
Follow the prompts to vote your shares.

**The Proxy Statement and our Annual Report on  
Form 10-K for the fiscal year ended December 31,  
2014 are available online at:**

<http://www.cstproxy.com/enzon/2015>

**COMPANY ID:**

**PROXY NUMBER:**

**ACCOUNT NUMBER:**

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

**Important Notice Regarding the Availability of Proxy Materials For the 2015 Stockholder Meeting to Be Held On Tuesday, June 30, 2015**

This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. We encourage you to access and review all of the important information contained in the proxy materials before voting.

If you would like to receive a paper or e-mail copy of these documents, *you must request one*. There is no charge for such documents to be mailed to you. Please make your request for a copy as instructed below on or before June 18, 2015 to facilitate a timely delivery.

The following Proxy Materials for the 2015 Annual Meeting are available to you to review at: <http://www.cstproxy.com/enzon/2015>

- the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014;
- the Company's Proxy Statement for the 2015 Annual Meeting;
- the Proxy Card for the 2015 Annual Meeting; and
- any amendments to the foregoing materials that are required to be furnished to stockholders.

You may contact the Company at (732) 980-4500 or through an e-mail request to [investor@enzon.com](mailto:investor@enzon.com) for directions to the 2015 Annual Meeting.

**ACCESSING YOUR PROXY MATERIALS ONLINE**

**Have this notice available when you request a paper copy of the proxy materials or to vote your proxy electronically. You must reference your company ID, proxy number, and account number.**

**REQUESTING A PAPER COPY OF THE PROXY MATERIALS**

**By telephone please call 1-888-221-0690,**

**or**

**By logging on to <http://www.cstproxy.com/enzon/2015>**

**or**

**By email at: [proxy@continentalstock.com](mailto:proxy@continentalstock.com)**

*Please include the company name and your account number in the subject line.*