FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| OMB APPROVAL           |     |  |  |  |  |
|------------------------|-----|--|--|--|--|
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Name and Address of Reporting Person*     Renfro Phillip M   |  |  |   | EN                      | 2. Issuer Name and Ticker or Trading Symbol ENZON PHARMACEUTICALS INC ENZN ] |   |                              |                     |  |                                       |  |   |   |                | olicable)   | g Person(s) to   |  |
|--|--|--|---|-------------------------|--|---|------------------------------|---------------------|--|---------------------------------------|--|---|---|----------------|---|--|--|
| (Last)   | `  | rst) (                                     | Middle)   | 3. Da                   | 3. Date of Earliest Transaction (Month/Day/Year) 07/01/2005                  |   |                              |                     |  |                                       |  |   |   | Offic<br>belo  | er (give title<br>w)  | Other<br>below   | (specify   |
| 685 ROUTE 202/206  |  |  |   | 4. If                   | 4. If Amendment, Date of Original Filed (Month/Day/Year)                     |   |                              |                     |  |                                       |  |   | 6. Individual or Joint/Group Filing (Check Applicable Line) |                |   |  |  |
| (Stroot)   |  |  |   |                         |  |   |                              |                     |  |                                       |  |   | X   | Form           | filed by One  | Reporting Per  | son  |
| (Street) BRIDGEWATER NJ 08807  |  |  |   |                         |  |   |                              |                     |  |                                       |  | Form filed by More than One Reporting<br>Person                   |   |                |   |  |  |
| (City)   | (Si  | tate) (                                    | Zip)  |                         |  |   |                              |                     |  |                                       |  |   |   |                |   |  |  |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned   |  |  |   |                         |  |   |                              |                     |  |                                       |  |   |   |                |   |  |  |
| 1. Title of  | Title of Security (Instr. 3)  2. Transaction Date Date (Month/Day/Year)  (Month/Day/Year)  2. Transaction Execution Date, if any (Month/Day/Year)  (Month/Day/Year)  2. Transaction Execution Date, if any (Month/Day/Year)  2. Transaction Date Execution Date, if any (Month/Day/Year) |  |   |                         |  |   |                              |                     |  |                                       | 6. Ownership<br>Form: Direct<br>(D) or<br>Indirect (I)<br>(Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |   |                |   |  |  |
|  |  |  |   |                         |  |   |                              | Code                | V Amount (A) or (D)  |                                       |  |   | rice  | Repoi<br>Trans |   | (msu. 4)   | (msu. 4)   |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |  |   |                         |  |   |                              |                     |  |                                       |  |   |   |                |   |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)  | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security  | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Yea | 4.<br>Transa<br>Code (I |  | 5.<br>Numb<br>of<br>Deriva<br>Secur<br>Acqui<br>(A) or<br>Dispo<br>of (D)<br>(Instr.<br>4 and | ative<br>ities<br>red<br>sed | Expiration [        | Date Exercisable and piration Date onth/Day/Year)  Onth/Day/Year)  Orderlying Derivative Security (Instrand 4) |                                       |  | of<br>s<br>ng<br>e  | 8. Price<br>of<br>Derivative<br>Security<br>(Instr. 5)      |                | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s<br>(Instr. 4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|  |  |  |   | Code                    | v  | (A)   | (D)                          | Date<br>Exercisable | Title  | Amous<br>or<br>Number<br>of<br>Shares | er   |   |   |                |   |  |  |
| Restricted<br>Stock<br>Units <sup>(1)</sup>  | \$0  | 07/01/2005                                 |   | A                       |  | 3,765   |                              | (2)                 |  | (2)                                   | Common<br>Stock  | 3,76  | 5   | \$0            | 3,765   | D  |  |

## Explanation of Responses:

- 1. Annual restricted stock units granted by Enzon Pharmaceuticals, Inc. ("Enzon") pursuant to Enzon's 2001 Incentive Stock Plan and qualified under Rule 16b-3(d).
- 2. Of the 3,765 units granted, 1,255 will vest on July 1, 2006, 1,255 will vest on July 1, 2007 and the remaining 1,255 will vest on July 1, 2008.

/s/ Lawrence R. Miller (Attorney-in-fact) 09/08/2005

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

## POWER OF ATTORNEY

Know all by these presents, that the undersigned hereby constitutes and appoints each of Craig A. Tooman and Lawrence R. Miller, signing singly, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer and/or director of Enzon Pharmaceuticals, Inc. (the "Company"), Forms 4 and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934 and the rules thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned which may be necessary or desirable to complete and execute any such Form 4 or 5 and timely file such form with the United States Securities and Exchange Commission and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this Power of Attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact. All previous powers of attorney with respect to the subject matter hereof, including Forms 4 and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934, are hereby revoked.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 7th day of September, 2005.

| /s/ Phillip Renfro |
|--------------------|
| Signature          |
|                    |
| Phillip Renfro     |
| Print Name         |