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

FORM 8-A/A

Amendment No. 2

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR (g) OF THE **SECURITIES EXCHANGE ACT OF 1934**

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.)

07016

(Zip Code)

20 Commerce Drive (Suite 135), Cranford, New Jersey

(Address of principal executive offices)

Securities to be registered pursuant to Section 12(b) of the Act: None.

Title of each class	Name of each exchange on which
to be so registered	each class is to be registered
N/A	N/A

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c) or (e), check the following box. \Box

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d) or (e), check the following box. \boxtimes

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box.

Securities Act registration statement or Regulation A offering statement file number to which this form relates: Not applicable.

Securities to be registered pursuant to Section 12(g) of the Act:

Series A-1 Junior Participating Preferred Stock Purchase Rights (Title of Class)

EXPLANATORY NOTE

This Amendment No. 2 to Form 8-A is filed to amend and supplement Items 1 and 2 of the Registration Statement on Form 8-A filed by Enzon Pharmaceuticals, Inc., a Delaware corporation (the "*Company*"), with the U.S. Securities and Exchange Commission (the "*SEC*") on August 14, 2020, as amended by Amendment No. 1 to Form 8-A filed with the SEC on June 8, 2021.

Item 1. Description of Registrant's Securities to be Registered.

On May 16, 2024, the Company entered into the Second Amendment to the Section 382 Rights Agreement (the "Second Amendment"), which amends the Section 382 Rights Agreement, dated as of August 14, 2020 (the "*Rights Agreement*"), by and between the Company and Continental Stock Transfer & Trust Company, as rights agent. Effective June 2, 2021, the Company amended the Rights Agreement (the "*First Amendment*") to extend the Final Expiration Date (as defined in the Rights Agreement) of the rights issued pursuant to the Rights Agreement from the close of business on August 13, 2021 to the close of business on June 2, 2024. The Second Amendment further extends the Final Expiration Date to the close of business on March 31, 2025. Except for the extension of the Final Expiration Date, the Rights Agreement otherwise remains unmodified.

The foregoing description does not purport to be complete and is qualified in its entirety by reference to the complete text of the Rights Agreement, which was filed as Exhibit 4.1 to the Company's Registration Statement on Form 8-A filed with the SEC on August 14, 2020, the First Amendment, which was filed with the SEC as Exhibit 4.1 to the Current Report on Form 8-K filed on June 8, 2021, and the Second Amendment, which was filed with the SEC as Exhibit 4.1 to the Current Report on Form 8-K filed on May 22, 2024. The Rights Agreement, the First Amendment, and the Second Amendment are incorporated herein by reference.

Item 2. Exhibits.

Exhibit No.	Description
<u>3.1</u>	<u>Certificate of Designation of Series A-1 Junior Participating Preferred Stock of Enzon Pharmaceuticals, Inc. filed with the Secretary of State of the State of Delaware on August 14, 2020 (incorporated herein by reference to Exhibit 3.1 of the Company's Registration Statement on Form 8-A filed with the SEC on August 14, 2020).</u>
<u>4.1</u>	Section 382 Rights Agreement, dated as of August 14, 2020, by and between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company, which includes the Form of Certificate of Designation as Exhibit A, Form of Rights Certificate as Exhibit B and the Form of Summary of Rights as Exhibit C (incorporated herein by reference to Exhibit 4.1 of the Company's Registration Statement on Form 8-A filed with the SEC on August 14, 2020).
<u>4.2</u>	First Amendment to the Section 382 Rights Agreement, dated as of June 4, 2021 and effective as of June 2, 2021, by and between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed with the SEC on June 8, 2021).
<u>4.3</u>	Second Amendment to the Section 382 Rights Agreement, dated as of May 16, 2024, by and between Enzon Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company (incorporated herein by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed with the SEC on May 22, 2024).

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SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Dated: May 22, 2024

ENZON PHARMACEUTICALS, INC.

(Registrant)

By: /s/ Richard L. Feinstein

Name:Richard L. FeinsteinTitle:Chief Executive Officer, Chief Financial Officer and Secretary