

As filed with the Securities and Exchange Commission on July 22, 2021

Registration No. 333-240210
 Registration No. 333-205379
 Registration No. 333-153612
 Registration No. 333-146319
 Registration No. 333-139600
 Registration No. 333-123212
 Registration No. 333-217905
 Registration No. 333-204426
 Registration No. 333- 119749
 Registration No. 333-106854
 Registration No. 333-69478
 Registration No. 333-52856
 Registration No. 333-71985
 Registration No. 333-71879
 Registration No. 333-24863

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

POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-240210)
 POST-EFFECTIVE AMENDMENT NO. 2 TO REGISTRATION STATEMENT ON FORM S-8, AS AMENDED BY POST-EFFECTIVE
 AMENDMENT NO. 1 (REGISTRATION NO. 333-205379)
 POST-EFFECTIVE AMENDMENT NO. 2 TO REGISTRATION STATEMENT ON FORM S-8, AS AMENDED BY POST-EFFECTIVE
 AMENDMENT NO. 1 (REGISTRATION NO. 333-153612)
 POST-EFFECTIVE AMENDMENT NO. 2 TO REGISTRATION STATEMENT ON FORM S-8, AS AMENDED BY POST-EFFECTIVE
 AMENDMENT NO. 1 (REGISTRATION NO. 333-146319)
 POST-EFFECTIVE AMENDMENT NO. 2 TO REGISTRATION STATEMENT ON FORM S-8, AS AMENDED BY POST-EFFECTIVE
 AMENDMENT NO. 1 (REGISTRATION NO. 333-139600)
 POST-EFFECTIVE AMENDMENT NO. 2 TO REGISTRATION STATEMENT ON FORM S-8, AS AMENDED BY POST-EFFECTIVE
 AMENDMENT NO. 1 (REGISTRATION NO. 333-123212)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-217905)
 POST-EFFECTIVE AMENDMENT NO. 2 TO REGISTRATION STATEMENT ON FORM S-4, AS AMENDED BY POST-EFFECTIVE
 AMENDMENT NO. 1 ON FORM S-8 (REGISTRATION NO. 333-204426)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-119749)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-106854)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATON STATEMENT ON FORM S-8 (REGISTRATION NO. 333-69478)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-52856)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-71985)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-71879)
 POST-EFFECTIVE AMENDMENT NO. 1 TO REGISTRATION STATEMENT ON FORM S-8 (REGISTRATION NO. 333-24863)

UNDER THE SECURITIES ACT OF 1933

ALEXION PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
 (State or other jurisdiction of
 incorporation or organization)

85-4136092
 (I.R.S. Employer
 Identification No.)

120 Seaport Boulevard Boston,
Massachusetts 02210
 (Address of principal executive offices)

Alexion Pharmaceuticals, Inc. 2017 Incentive Plan
Alexion Pharmaceuticals, Inc. 2015 Employee Stock Purchase Plan
Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan
Alexion Pharmaceuticals, Inc. 2004 Incentive Plan
Alexion Pharmaceuticals, Inc. 2000 Stock Option Plan
Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors
Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan
Portola Pharmaceutical, Inc. Amended and Restated Inducement Plan
Portola Pharmaceutical, Inc. 2013 Equity Incentive Plan
Synageva BioPharma Corp. 2014 Equity Incentive Plan
Prolifarian, Inc. 1999 Long Term Incentive and Stock Option Plan
 (Full titles of the plans)

David E. White
Treasurer
Alexion Pharmaceuticals, Inc.
1800 Concord Pike
Wilmington, DE 19850
(Name and address of agent for service)

(302) 886-6994
(Telephone number, including area code, of agent for service)

With copies to:

Sebastian L. Fain
Freshfields Bruckhaus Deringer US LLP
601 Lexington Avenue, 31st Floor
New York, New York 10022
1-212-277-4000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

DEREGISTRATION OF COMMON STOCK

This Post-Effective Amendment (the “**Post-Effective Amendment**”), filed by Alexion Pharmaceuticals, Inc., a Delaware corporation (f/k/a AstraZeneca Rare Disease Holdings Inc., f/k/a Delta Omega Sub Holdings Inc.) (the “**Registrant**”) and successor in interest to Alexion Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), relates to the following registration statements on Form S-8 (each as amended, the “**Registration Statements**”) (including one registration statement on Form S-4 amended by post-effective amendment no. 1 thereto on Form S-8) of the Company, previously filed with the Securities and Exchange Commission (the “**Commission**”):

- Registration Statement on Form S-8 (Registration No. 333-240210) filed on July 30, 2020 for the registration of 1,673,406 shares of common stock, par value \$0.0001 per share, of the Company that may be issued and sold upon the exercise of options or pursuant to awards issued under the Portola Pharmaceuticals, Inc. 2013 Equity Incentive Plan and Portola Pharmaceuticals, Inc. Amended and Restated Inducement Plan following the acquisition of Portola Pharmaceuticals, Inc. by the Company.
 - Registration Statements on Form S-8 (Registration Nos. 333-205379, 333-153612, 333-146319, 333-139600 and Registration No. 333-123212), each as amended by Post-Effective Amendment No. 1 filed on May 12, 2017, which reflects that the Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan was replaced by the Alexion Pharmaceuticals, Inc. 2017 Incentive Plan effective as of May 10, 2017 and rolled over to the 2017 Plan shares of the Company’s common stock, par value \$0.0001 per share, registered under the Registration Statements that were subject to awards outstanding under the 2004 Plan on or after March 14, 2017 and that may become available again for awards under the 2017 Plan.
 - Registration Statement on Form S-8 (Registration No. 333-217905) filed on May 11, 2017 for the registration of 18,152,884 shares of the common stock, par value \$0.0001 per share, of the Company that may be issued and sold pursuant to future awards issued under the Alexion Pharmaceuticals, Inc. 2017 Incentive Plan.
 - Registration Statement on Form S-8 (Registration No. 333-205379) filed on June 30, 2015 for the registration of (i) 1,000,000 shares of common stock, par value \$0.0001 per share, of the Registrant that may be issued and sold under the Alexion Pharmaceuticals, Inc. 2015 Employee Stock Purchase Plan, (ii) 5,792,438 additional shares of common stock, par value \$0.0001 per share, of the Company issuable upon the exercise of options to purchase shares of common stock and (iii) 10,800,000 shares of common stock, par value \$0.0001 per share, of the Company reserved for issuance pursuant to future awards under the Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan.
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- Registration Statement on Form S-4, as amended by Post-Effective Amendment No. 1 thereto on Form S-8 filed on June 23, 2015 (Registration No. 333-204426), relating to an aggregate of 265,759 shares of common stock, par value \$0.0001 per share, of the Company that may be issued in respect of certain restricted stock unit awards granted by Synageva BioPharma Corp. following the acquisition of Synageva by the Company.
 - Registration Statement on Form S-8 (Registration No. 333-153612) filed on September 22, 2008 for the registration of 4,800,000 additional shares of common stock, par value \$0.0001 per share, of the Company (along with the attached Junior Participating Cumulative Preferred Stock purchase rights) that may be issued and sold under the Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan.
 - Registration Statement on Form S-8 (Registration No. 333-146319) filed on September 26, 2007 for the registration of 1,200,000 additional shares of common stock, par value \$0.0001 per share, of the Company (along with the attached Junior Participating Cumulative Preferred Stock purchase rights) that may be issued and sold under the Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan.
 - Registration Statement on Form S-8 (Registration No. 333-139600) filed on December 22, 2006 for the registration of 775,000 additional shares of common stock, par value \$0.0001 per share, of the Company (along with the attached Junior Participating Cumulative Preferred Stock purchase rights) that may be issued and sold under the Alexion Pharmaceuticals, Inc. Amended and Restated 2004 Incentive Plan.
 - Registration Statement on Form S-8 (Registration No. 333-123212) filed on March 9, 2005 for the registration of 3,093,519 shares of common stock, par value \$0.0001 per share, of the Company (along with the attached Junior Participating Cumulative Preferred Stock purchase rights) that may be issued and sold under the Alexion Pharmaceuticals, Inc. 2004 Incentive Plan.
 - Registration Statement on Form S-8 (No. 333-119749) filed on October 14, 2004 for (i) the registration of the offer and sale of shares of common stock issuable upon the exercise of options granted under the Alexion Pharmaceuticals, Inc. 2000 Stock Option Plan and the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors and (ii) the reoffer and resale of up to 3,400,000 shares of the Company's common stock by certain selling stockholders (which shall be deemed a post-effective amendment to the Company's Registration Statement on Form S-8 (Registration No. 333-69478 and Registration No. 333-106854)).
 - Registration Statement on Form S-8 (Registration No. 333-106854) filed on July 7, 2003 for the registration of (i) 900,000 additional shares of common stock, \$0.0001 par value per share, of the Company for issuance pursuant to the Alexion Pharmaceuticals, Inc. 2000 Stock Option Plan, and (ii) 350,000 additional shares of common stock, \$0.0001 par value per share, of the Company for issuance pursuant to the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors.
 - Registration Statement on Form S-8 (Registration No. 333-69478) filed on September 14, 2001 for the registration of 1,500,000 shares of common stock, \$0.0001 par value per share, of the Company for issuance under the Alexion Pharmaceuticals, Inc. 2000 Stock Option Plan.
 - Registration Statement on Form S-8 (Registration No. 333-52856) filed on December 28, 2000 for the registration of 44,292 shares of common stock, \$0.0001 par value per share, of the Company for issuance upon the exercise of options granted under the Prolifarion, Inc. 1999 Long Term Incentive and Stock Option Plan following the acquisition of Prolifarion Inc. by the Company.
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- Registration Statement on Form S-8 (Registration No. 333-71985) filed on February 8, 1999 for the registration of 200,000 shares of common stock, \$0.0001 par value per share, of the Company for issuance under the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan for Outside Directors.
- Registration Statement on Form S-8 (Registration No. 333-71879) filed on February 5, 1999 for the registration of 1,300,000 shares of common stock, \$0.0001 par value per share of the Company, for issuance under the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan.
- Registration Statement on Form S-8 (Registration No. 333-24863) filed on April 9, 1997 for the registration of 1,800,000 shares of common stock, \$0.0001 par value per share of the Company, for issuance under the Alexion Pharmaceuticals, Inc. 1992 Stock Option Plan.

On December 12, 2020, AstraZeneca PLC (“**AstraZeneca**”), the Registrant, the Company, Delta Omega Sub Holdings Inc. 1, a direct, wholly owned subsidiary of the Registrant (“**Merger Sub I**”) and Alexion Rare Disease LLC (f/k/a Delta Omega Sub Holdings LLC 2), a direct, wholly owned subsidiary of the Registrant (“**Merger Sub II**”), entered into an Agreement and Plan of Merger (the “**Merger Agreement**”) that provided for the acquisition of the Company by AstraZeneca. On the terms and subject to the conditions set forth in the Merger Agreement, on July 21, 2021 (1) Merger Sub I merged with and into the Company (the “**First Merger**”) with the Company surviving the First Merger as a wholly owned subsidiary of the Registrant, and (2) immediately following the effective time of the First Merger, the Company merged with and into Merger Sub II (the “**Second Merger**”) with Merger Sub II surviving the Second Merger as a direct wholly owned subsidiary of the Registrant and an indirect wholly owned subsidiary of AstraZeneca. Effective on July 22, 2021, Merger Sub II merged with and into the Registrant, at which point the Registrant’s name was changed from AstraZeneca Rare Disease Holdings Inc. to Alexion Pharmaceuticals, Inc. (such merger, together with the First Merger and the Second Merger, the “**Mergers**”).

As a result of the Mergers, any offering pursuant to the Registration Statements has been terminated and the Registrant hereby terminates the effectiveness of the Registration Statements. In accordance with an undertaking made by the Company in the Registration Statements to remove from registration, by means of a post-effective amendment, any of the securities registered under each Registration Statement that remain unsold at the termination of the offerings, the Registrant hereby removes from registration the securities registered but unsold under the Registration Statements, if any.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, and Rule 478 thereunder, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing this Post-Effective Amendment to the Registration Statements and has duly caused this Post-Effective Amendment to the Registration Statements to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Wilmington, State of Delaware, on the 22nd day of July, 2021.

ALEXION PHARMACEUTICALS, INC.

By: /s/ David E. White

Name: David E. White

Title: Treasurer
