As filed with the Securities and Exchange Commission on February 23, 2023

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

Agios Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)

88 Sidney Street Cambridge, MA (Address of Principal Executive Offices) 26-0662915 (I.R.S. Employer Identification No.)

> 02139 (Zip Code)

2013 Stock Incentive Plan 2013 Employee Stock Purchase Plan (Full Title of the Plan)

Brian Goff Chief Executive Officer Agios Pharmaceuticals, Inc. 88 Sidney Street Cambridge, MA 02139 (Name and Address of Agent For Service)

(617) 649-8600 (Telephone Number, Including Area Code, of Agent For Service)

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

Non-accelerated filer \Box

Accelerated filer□Smaller reporting company□Emerging growth company□

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.

Statement of Incorporation by Reference

This Registration Statement on Form S-8, relating to the 2013 Stock Incentive Plan of Agios Pharmaceuticals, Inc. (the "Registrant") and the 2013 Employee Stock Purchase Plan of the Registrant, is being filed for the purpose of registering additional securities of the same class as other securities for which a Registration Statement on Form S-8 has previously been filed and is effective. Accordingly, this Registration Statement incorporates by reference the contents of (i) the Registration Statement on Form S-8, File No. 333-190101, filed with the Securities and Exchange Commission on July 24, 2013 by the Registrant, relating to the Registrant's 2007 Stock Incentive Plan, 2013 Stock Incentive Plan and 2013 Employee Stock Purchase Plan, (ii) the Registration Statement on Form S-8, File No. 333-193802, filed with the Securities and Exchange Commission on February 7, 2014, relating to the Registrant's 2013 Stock Incentive Plan, (iii) the Registration Statement on Form S-8, File No. 333-201796, filed with the Securities and Exchange Commission on January 30, 2015, relating to the Registrant's 2013 Stock Incentive Plan, (iv) the Registration Statement on Form S-8, File No. 333-209755, filed with the Securities and Exchange Commission on February 26, 2016, relating to the Registrant's 2013 Stock Incentive Plan, (v) the Registration Statement on Form S-8, File No. 333-216106, filed with the Securities and Exchange Commission on February 16, 2017, relating to the Registrant's 2013 Stock Incentive Plan, (vii) the Registration Statement on Form S-8, File No. 333-223031, filed with the Securities and Exchange Commission on February 14, 2018, relating to the Registrant's 2013 Stock Incentive Plan, (viii) the Registration Statement on Form S-8, File No. 333-229669, filed with the Securities and Exchange Commission on February 14, 2019 relating to the Registrant's 2013 Stock Incentive Plan, (ix) the Registration Statement on Form S-8, File No. 333-236523, filed with the Securities and Exchange Commission on February 19, 2020 relating to the Registrant's 2013 Stock Incentive Plan and the Registrant's 2013 Employee Stock Purchase Plan, (x) the Registration Statement on Form S-8, File No. 333-253498, filed with the Securities and Exchange Commission on February 25, 2021 relating to the Registrant's 2013 Stock Incentive Plan and Registrant's 2013 Employee Stock Purchase Plan, and (xi) the Registration Statement on Form S-8, File No. 333-262956, filed with the Securities and Exchange Commission on February 24, 2022 relating to the Registrant's 2013 Stock Incentive Plan and Registrant's 2013 Employee Stock Purchase Plan, in each case except for Item 8, Exhibits.

Item 8. Exhibits

		Incorporated by Reference				
Exhibit <u>Number</u>	Description of Exhibit	Form	File Number	Date of Filing	Exhibit <u>Number</u>	Filed <u>Herewith</u>
4.1	Restated Certificate of Incorporation of the Registrant	8-K	001-36014	July 30, 2013	3.1	
4.2	Second Amended and Restated By-Laws of the Registrant	8-K	001-36014	December 19, 2018	3.1	
5.1	<u>Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant</u>					Х
23.1	<u>Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in</u> <u>Exhibit 5.1)</u>					х
23.2	Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm					х
24.1	<u>Power of attorney (included on the signature pages of this registration</u> <u>statement)</u>					Х
99.1	2013 Stock Incentive Plan	S-1	333-189216	June 24, 2013	10.4	
99.2	2013 Employee Stock Purchase Plan	S-1	333-189216	June 24, 2013	10.7	
107	Calculation of Filing Fee Tables					Х

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 Cambridge, Commonwealth of Massachusetts, on this 23rd day of February, 2023.

AGIOS PHARMACEUTICALS, INC.

By: /s/ Brian Goff

Brian Goff Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Agios Pharmaceuticals, Inc., hereby severally constitute and appoint Brian Goff and Cecilia Jones, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the registration statement on Form S-8 filed herewith and any and all subsequent amendments to said registration statement, and generally to do all such things in our names and on our behalf in our capacities as officers and directors to enable Agios Pharmaceuticals, Inc. to comply with the provisions of the Securities Act of 1933, as amended, and all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by our said attorneys, or any of them, to said registration statement and any and all amendments thereto.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Brian Goff	Chief Executive Officer and Director	February 23, 2023
Brian Goff	(Principal executive officer)	
/s/ Cecilia Jones Cecilia Jones	Chief Financial Officer (Principal financial officer)	February 23, 2023
/s/ T.J. Washburn T.J. Washburn	Vice President, Controller (Principal accounting officer)	February 23, 2023
/s/ Jacqualyn A. Fouse Jacqualyn A. Fouse	_ Chair of the Board of Directors	February 23, 2023
/s/ Rahul Ballal Rahul Ballal, Ph.D.	Director	February 23, 2023
/s/ Paul J. Clancy Paul J. Clancy	_ Director	February 23, 2023
/s/ Kaye Foster Kaye Foster	Director	February 23, 2023
/s/ Maykin Ho Maykin Ho, Ph.D.	Director	February 23, 2023

/s/ John M. Maraganore John M. Maraganore, Ph.D.	Director	February 23, 2023
/s/ David Scadden David Scadden, M.D.	Director	February 23, 2023
/s/ David P. Schenkein David P. Schenkein, M.D.	Director	February 23, 2023
/s/ Cynthia Smith Cynthia Smith	Director	February 23, 2023

WILMERHALE

+1 617 526 6000 (t) +1 617 526 5000 (f) wilmerhale.com

February 23, 2023

Agios Pharmaceuticals, Inc. 88 Sidney Street Cambridge, MA 02139

Re: Registration Statement on Form S-8: 2013 Stock Incentive Plan and 2013 Employee Stock Purchase Plan

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to an aggregate of 2,509,091 shares of common stock, \$0.001 par value per share (the "Shares"), of Agios Pharmaceuticals, Inc., a Delaware corporation (the "Company"), issuable under the Company's 2013 Stock Incentive Plan and 2013 Employee Stock Purchase Plan (collectively, the "Plans").

We have examined the Certificate of Incorporation and By-Laws of the Company, each as amended and restated to date, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the board of directors and stockholders of the Company, the Registration Statement, the Plans and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or other copies, the authenticity of the originals of any such documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the Shares in accordance with the Plans, to register and qualify the Shares for sale under all applicable state securities or "blue sky" laws.

We express no opinion herein as to the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the applicable Plan, the Shares will be validly issued, fully paid and nonassessable.

Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109 Beijing Berlin Boston Brussels Denver Frankfurt London Los Angeles New York Palo Alto San Francisco Washington February 23, 2023 Page 2

We hereby consent to the filing of this opinion with the Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

WILMER CUTLER PICKERING HALE AND DORR LLP

By: /s/ Wilmer Cutler Pickering Hale and Dorr LLP Wilmer Cutler Pickering Hale and Dorr LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Agios Pharmaceuticals, Inc. of our report dated February 23, 2023 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in Agios Pharmaceuticals, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022.

/s/ PricewaterhouseCoopers LLP Boston, Massachusetts February 23, 2023

Calculation of Filing Fee Tables

Form S-8 (Form Type)

Agios Pharmaceuticals, Inc. (Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock,						
	\$0.001 par value		2,509,091			\$110.20 per	
	per share	Other	shares (2)	\$26.66 (3)	\$66,892,366.06 (3)	\$1,000,000	\$7,372.00
Total Offering Amounts				\$66,892,366.06		\$7,372.00	
Total Fee Offsets						\$0	
Net Fee Due						\$7,372.00	

(1) In accordance with Rule 416 under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover any additional securities that may from time to time be offered or issued to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Consists of (i) 2,000,000 additional shares issuable under the 2013 Stock Incentive Plan and (ii) 509,091 additional shares issuable under the 2013 Employee Stock Purchase Plan.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low sale prices of the Registrant's Common Stock as reported on the Nasdaq Global Select Market on February 21, 2023.