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

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

FULCRUM THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

26 Landsdowne Street Cambridge, Massachusetts (Address of Principal Executive Offices) 47-4839948 (I.R.S. Employer Identification No.)

> 02139 (Zip Code)

2019 Stock Incentive Plan 2019 Employee Stock Purchase Plan 2022 Inducement Stock Incentive Plan Inducement Stock Option Awards (August 2023 – December 2023) (Full title of the plan)

> Alex C. Sapir President and Chief Executive Officer Fulcrum Therapeutics, Inc. 26 Landsdowne Street Cambridge, Massachusetts 02139 (Name and address of agent for service)

(617) 651-8851 (Telephone number, including area code, of agent for service)

Copies to:

Mitchell Bloom, Esq. Marianne Sarrazin, Esq. Goodwin Procter LLP 100 Northern Avenue Boston, MA 02210 (617) 570-1000 Curtis Oltmans, Esq. Chief Legal Officer Fulcrum Therapeutics, Inc. 26 Landsdowne Street Cambridge, Massachusetts 02139 (617) 651-8851

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 \Box

Non-accelerated filer

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.

EXPLANATORY NOTE

Fulcrum Therapeutics, Inc. ("Fulcrum") is filing this Registration Statement on Form S-8 for the purpose of registering an additional (i) 2,000,000 shares of its common stock, \$0.001 par value per share (the "Common Stock") under Fulcrum's 2019 Stock Incentive Plan (the "2019 Plan"), (ii) 428,571 shares of Common Stock under Fulcrum's 2019 Employee Stock Purchase Plan (the "ESPP"), in the case of (i) and (ii) pursuant to the provisions for each plan that provide for annual automatic increases in the number of shares of Common Stock reserved for issuance under each plan, (iii) 724,080 shares of Common Stock issuable under new hire inducement stock option awards granted between August 2023 and December 2023 under Fulcrum's 2022 Inducement Stock Incentive Plan, as amended (the "Inducement Plan" and, together with the ESPP and the 2019 Plan, the "Plans") to certain employees of Fulcrum as inducement material to entry into employment with Fulcrum in accordance with Nasdaq Listing Rule 5635(c)(4), and (iv) 675,920 shares of Common Stock reserved for issuance under the Inducement Plan. In each case, the additional shares are of the same class as other securities for which a registration statement relating to the Plans has previously been filed and is effective. Accordingly, this registration statement incorporates by reference the contents of the registration statements on Form S-8 (File No. <u>333-233452</u>) filed on August 26, 2019, Form S-8 (File No. <u>333-236910</u>) filed on March 5, 2020, Form S-8 (File No. <u>333-233452</u>) filed on March 4, 2021, Form S-8 (File No. <u>333-270385</u>) filed on March 9, 2023, pursuant to General Instruction E, except with respect to Item 8. Exhibits thereof.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit	
No.	Description
4.1	Restated Certificate of Incorporation of the registrant (incorporated by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 22, 2019)
4.2	Certificate of Amendment of the Restated Certificate of Incorporation of the registrant (incorporated by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 9, 2023)
4.3	Amended and Restated Bylaws of the registrant (incorporated by reference to Exhibit 3.2 to the registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 22, 2019)
5.1*	Opinion of Goodwin Procter LLP
23.1*	Consent of Ernst & Young LLP
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page)
99.1	2019 Stock Incentive Plan of the registrant (incorporated by reference to Exhibit 10.6 to Amendment No. 1 to the registrant's Registration Statement on Form S-1 (File No. 333-232260) filed with the Securities and Exchange Commission on July 8, 2019)
99.2	Form of Stock Option Agreement under the 2019 Stock Incentive Plan (incorporated by reference to Exhibit 10.7 to Amendment No. 1 to the registrant's Registration Statement on Form S-1 (File No. 333-232260) filed with the Securities and Exchange Commission on July 8, 2019)
99.3	Form of Restricted Stock Unit Agreement under the 2019 Stock Incentive Plan (incorporated by reference to Exhibit 10.10 to the registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 3, 2022)
99.4	2019 Employee Stock Purchase Plan of the registrant (incorporated by reference to Exhibit 10.8 to Amendment No. 1 to the registrant's Registration Statement on Form S-1 (File No. 333-232260) filed with the Securities and Exchange Commission on July 8, 2019)
99.5	2022 Inducement Stock Incentive Plan (incorporated by reference to Exhibit 10.12 to the Registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 3, 2022)
99.6	First Amendment to 2022 Inducement Stock Incentive Plan (incorporated by reference to Exhibit 10.13 to the Registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 8, 2023)
99.7	Second Amendment to 2022 Inducement Stock Incentive Plan (incorporated by reference to Exhibit 10.12 to the Registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 27, 2024)
99.8	Form of Non-Statutory Stock Option Agreement under the 2022 Inducement Stock Incentive Plan (incorporated by reference to Exhibit 10.13 to the registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 3, 2022)
99.9	Form of Restricted Stock Unit Agreement under the 2022 Inducement Stock Incentive Plan (incorporated by reference to Exhibit 10.14 to the registrant's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 3, 2022)
107*	Filing Fee Table

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 the 27th day of February, 2024.

Fulcrum Therapeutics, Inc.

By:	/s/ Alex C. Sapir	
Name:	Alex C. Sapir	

Title: President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints each of Alex C. Sapir and Alan Musso, acting alone or together with another attorney-in-fact, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in his or her name, place and stead, in any and all capacities, to sign any or all further amendments (including post-effective amendments) to this registration statement (and any additional registration statement related hereto permitted by Rule 462(b) promulgated under the Securities Act, (and all further amendments, including post-effective amendments, thereto)), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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.

Name	Title	Date
/s/ Alex C. Sapir Alex C. Sapir	President and Chief Executive Officer, Director (Principal Executive Officer)	February 27, 2024
/s/ Alan Musso Alan Musso	Chief Financial Officer (Principal Financial Officer)	February 27, 2024
/s/ Gregory Tourangeau Gregory Tourangeau	Vice President, Finance (Principal Accounting Officer)	February 27, 2024
/s/ Kate Haviland Kate Haviland	Chairman of the Board	February 27, 2024
/s/ Robert J. Gould Robert J. Gould	Director	February 27, 2024
/s/ Sonja L. Banks Sonja L. Banks	Director	February 27, 2024
/s/ James J. Collins James J. Collins	Director	February 27, 2024
/s/ Katina Dorton Katina Dorton	Director	February 27, 2024
/s/ Alan Ezekowitz Alan Ezekowitz	Director	February 27, 2024
/s/ James Geraghty James Geraghty	Director	February 27, 2024



Goodwin Procter LLP Three Embarcadero Center, Suite 2800 San Francisco, CA 94111

goodwinlaw.com +1 415 733 6000

February 27, 2024

Fulcrum Therapeutics, Inc. 26 Landsdowne Street Cambridge, Massachusetts 02139

Re: Securities Being Registered under Registration Statement on Form S-8

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-8 (the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of 3,828,571 shares (the "Shares") of Common Stock, \$0.001 par value per share ("Common Stock"), of Fulcrum Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2019 Stock Incentive Plan (the "2019 Plan"), the Company's 2019 Employee Stock Purchase Plan (the "ESPP") and the Company's 2022 Inducement Stock Incentive Plan (the "Inducement Plan" and, together with the ESPP and the 2019 Plan, the "Plans").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

For purposes of the opinion set forth below, we have assumed that no event occurs that causes the number of authorized shares of Common Stock available for issuance by the Company to be less than the number of then unissued Shares.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plans, will be validly issued, fully paid and nonassessable.

This opinion letter and the opinion it contains shall be interpreted in accordance with the Core Opinion Principles as published in 74 *Business Lawyer* 815 (Summer 2019).

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not 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 thereunder.

Very truly yours,

/S/ Goodwin Procter LLP

GOODWIN PROCTER LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2019 Stock Incentive Plan, the 2019 Employee Stock Purchase Plan, the 2022 Inducement Stock Incentive Plan, as amended, and Inducement Stock Option Awards (August 2023 – December 2023) of Fulcrum Therapeutics, Inc. of our report dated February 27, 2024 with respect to the consolidated financial statements of Fulcrum Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2023, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts February 27, 2024

Calculation of Filing Fee Tables

Form S-8 (Form Type)

Fulcrum Therapeutics, Inc. (Exact Name of Registrant as Specified in its Charter)

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered (1)	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock,	457(c)					
	\$0.001 par value	and					
	per share	457(h)(1)	2,000,000 (2)	\$9.42 (3)	\$18,840,000.00	\$0.00014760	\$2,780.79
Equity	Common Stock,	457(c)					
	\$0.001 par value	and					
	per share	457(h)(1)	428,571 (4)	\$8.01 (5)	\$3,432,853.71	\$0.00014760	\$506.69
Equity	Common Stock,						
	\$0.001 par value						
	per share	457(h)(1)	724,080 (6)	\$4.38 (7)	\$3,171,470.40	\$0.00014760	\$468.11
Equity	Common Stock,	457(c)					
	\$0.001 par value	and					
	per share	457(h)(1)	675,920 (8)	\$9.42 (3)	\$6,367,166.40	\$0.00014760	\$939.80
Total Offering Amounts					\$31,811,490.51		\$4,695.39
Total Fee Offsets							\$0
	Net Fee I	Due					\$4,695.39

Table 1: Newly Registered Securities

(1) In accordance with Rule 416 under the Securities Act of 1933, as amended (the "Act"), 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. Pursuant to Rule 416(c) under the Act, this registration statement shall also cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plans described herein.

- (2) Consists of 2,000,000 shares issuable under the registrant's 2019 Stock Incentive Plan.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h)(1) of the Act, and based on \$9.42, the average of the high and low sale prices of the registrant's common stock as reported on the Nasdaq Global Market on February 21, 2024.
- (4) Consists of 428,571 shares issuable under the registrant's 2019 Employee Stock Purchase Plan.
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h)(1) of the Securities Act, and based on 85% of \$9.42, the average of the high and low sale prices of the registrant's common stock as reported on the Nasdaq Global Market on February 21, 2024.
- (6) Consists of shares issuable under new hire inducement stock option awards granted between August 2023 and December 2023 under the registrant's 2022 Inducement Stock Incentive Plan, as amended (the "Inducement Plan") to certain employees of the registrant as inducement material to entry into employment with the registrant in accordance with Nasdaq Rule 5635(c)(4).
- (7) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h)(1) of the Act, and based on \$4.38, the weighted average exercise price (rounded to the nearest cent) of the options outstanding under the applicable inducement stock option awards.
- (8) Consists of shares issuable under the registrant's Inducement Plan.