UNITED STATES SECURITIES AND EXCHANGE COMMISSION

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)

> 2019 Stock Incentive Plan 2019 Employee Stock Purchase Plan (Full Title of the Plan)

Robert J. Gould, Ph.D. 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)

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 ⊠

Accelerated filer

Smaller reporting company

Emerging growth company \square

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.

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, par value \$0.001 per share	1,403,370(2)	\$13.66(3)	\$19,170,034.20(3)	\$2,092

(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 an additional (i) 1,122,696 shares issuable under the 2019 Stock Incentive Plan and (ii) 280,674 shares issuable under the 2019 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 Market on February 25, 2021.

47-4839948 (I.R.S. Employer Identification No.)

> 02139 (Zip Code)

STATEMENT OF INCORPORATION BY REFERENCE

This Registration Statement on Form S-8, relating to the 2019 Stock Incentive Plan of Fulcrum Therapeutics, Inc. (the "Registrant") and the 2019 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 relating to the 2019 Stock Incentive Plan and the 2019 Employee Stock Purchase Plan 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, <u>File No. 333-233452</u>, filed with the Securities and Exchange Commission on August 26, 2019 by the Registrant, relating to the Registrant's 2016 Stock Incentive Plan, as amended, 2019 Stock Incentive Plan and 2019 Employee Stock Purchase Plan and (ii) the Registration Statement on Form S-8, <u>File No. 333-236910</u>, filed with the Securities and Exchange Commission on March 5, 2020 by the Registrant, relating to the Registrant's 2019 Stock Incentive Plan and 2019 Employee Stock Purchase Plan and 2019 Employee Stock Purchase Plan and 2019 Stock Incentive Plan and 2019 Employee Stock Purchase Plan and (ii) the Registrant, relating to the Registrant's 2019 Stock Incentive Plan and 2019 Employee Stock Purchase Plan and (iii) the Registrant, relating to the Registrant's 2019 Stock Incentive Plan and 2019 Employee Stock Purchase Plan and (iii) the Registrant, relating to the Registrant's 2019 Stock Incentive Plan and 2019 Employee Stock Purchase Plan and, in each case, except for Item 8, Exhibits.

Item 8. Exhibits

Number	Description			
4.1	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Rep. Form 8-K (File No. 001-38978) filed with the Securities and Exchange Commission on July 22, 2019)			
4.2	<u>Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K</u> (File No. 001-38978) filed with the Securities and Exchange Commission on July 22, 2019)			
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP, counsel to the Registrant			
23.1*	Consent of Ernst & Young LLP, independent registered public accounting firm			
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)			
24.1*	Power of Attorney (included on the signature pages of this registration statement)			
99.1	2019 Stock Incentive Plan (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	2019 Employee Stock Purchase Plan (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)			

* Filed herewith

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 4th day of March, 2021.

FULCRUM THERAPEUTICS, INC.

By: /s/ Robert J. Gould

Robert J. Gould, Ph.D. President and Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Fulcrum Therapeutics, Inc., hereby severally constitute and appoint Robert J. Gould and Bryan Stuart, 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 Fulcrum Therapeutics, 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/ Robert J. Gould Robert J. Gould, Ph.D.	President and Chief Executive Officer, Director (Principal Executive Officer)	March 4, 2021
/s/ Bryan Stuart Bryan Stuart	Chief Operating Officer (Principal Financial Officer)	March 4, 2021
/s/ Peter Thomson Peter Thomson	Vice President, Finance & Accounting (Principal Accounting Officer)	March 4, 2021
/s/ Mark Levin Mark Levin	Chairman of the Board	March 4, 2021
/s/ James J. Collins James J. Collins, Ph.D.	Director	March 4, 2021
/s/ Katina Dorton Katina Dorton	Director	March 4, 2021

/s/ Alan Ezekowitz Alan Ezekowitz, MBChB, D. Phil	Director	March 4, 2021
/s/ James Geraghty James Geraghty	Director	March 4, 2021
/s/ Kate Haviland Kate Haviland	Director	March 4, 2021

Exhibit 5.1

WILMERHALE

March 4, 2021

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

RE: 2019 Stock Incentive Plan; 2019 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 1,403,370 shares of common stock, par value \$0.001 per share (the "Shares"), of Fulcrum Therapeutics, Inc., a Delaware corporation (the "Company"), issuable under the Company's 2019 Stock Incentive Plan and 2019 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 directors and stockholders of the Company, the Registration Statement 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 state laws of the Commonwealth of Massachusetts, the General Corporation Law of the State of Delaware and the federal laws of the United States of America.

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.

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

+1 617 526 6000 (t) +1 617 526 5000 (f) wilmerhale.com March 4, 2021 Page 2

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 Plans, the Shares will be validly issued, fully paid and nonassessable.

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/ Lia Der Marderosian Lia Der Marderosian, a Partner

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 and the 2019 Employee Stock Purchase Plan of Fulcrum Therapeutics, Inc. of our report dated March 4, 2021 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, 2020, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Boston, Massachusetts March 4, 2021