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

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**POST-EFFECTIVE AMENDMENT NO. 1  
TO  
FORM S-1  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

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**PRAXIS PRECISION MEDICINES, INC.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2836**  
(Primary Standard Industrial  
Classification Code Number)

**37-1657129**  
(I.R.S. Employer  
Identification Number)

**One Broadway, 16<sup>th</sup> Floor  
Cambridge, MA 02142  
617-300-8460**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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**Marcio Souza  
Chief Executive Officer  
One Broadway, 16<sup>th</sup> Floor  
Cambridge, MA 02142  
617-300-8460**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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*Copies to:*

**Richard A. Hoffman, Esq.  
Sarah Ashfaq, Esq.  
Goodwin Procter LLP  
100 Northern Avenue  
Boston, MA 02210  
(617) 570-1000**

**Jonathan L. Kravetz, Esq.  
John T. Rudy, Esq.  
Mintz, Levin, Cohn, Ferris, Glovsky &  
Popeo, P.C.  
One Financial Center  
Boston, MA 02111  
(617) 542-6000**

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Approximate date of commencement of proposed sale to the public:  
**As soon as practicable after the effective date of this registration statement.**

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.  (File No. 333-256005)

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

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 to Section 7(a)(2)(B) of the Securities Act.

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**The Registration Statement shall become effective upon filing in accordance with Rule 462(d) promulgated under the Securities Act of 1933, as amended.**

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## EXPLANATORY NOTE

This Post-Effective Amendment No. 1 (“Amendment No. 1”) to the Registration Statement on Form S-1 (“Registration Statement”) is being filed solely for the purpose of refiling Exhibit 5.1 with modifications. This Amendment No. 1 does not modify any provision of Part I or Part II of the Registration Statement other than Item 16(a) of Part II as set forth below.

### PART II

#### INFORMATION NOT REQUIRED IN PROSPECTUS

##### Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

| <u>Exhibit Number</u> | <u>Exhibit Description</u>  |
|-----------------------|---|
| 5.1                   | <a href="#">Opinion of Goodwin Procter LLP</a>  |
| 23.2                  | <a href="#">Consent of Goodwin Procter LLP (included in Exhibit 5.1).</a>   |
| 24.1                  | <a href="#">Power of Attorney (included on the signature page of the Registration Statement on Form S-1 (File No. 333-256005) filed with the SEC on May 11, 2021 and incorporated herein by reference).</a> |

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Cambridge, Massachusetts, on the 17th day of May, 2021.

**PRAXIS PRECISION MEDICINES, INC.**

/s/ Marcio Souza

Marcio Souza  
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

| <u>Signature</u>                                  | <u>Title</u>   | <u>Date</u>  |
|---|--|--------------|
| <u>/s/ Marcio Souza</u><br>Marcio Souza           | Chief Executive Officer and Director<br><i>(Principal Executive Officer)</i> | May 17, 2021 |
| <u>/s/ Lauren Mastrocola</u><br>Lauren Mastrocola | Principal Accounting Officer and Interim<br>Principal Financial Officer      | May 17, 2021 |
| <u>*</u><br>Dean Mitchell                         | Chairman of the Board  | May 17, 2021 |
| <u>*</u><br>Jeffrey Chodakewitz, M.D.             | Director   | May 17, 2021 |
| <u>*</u><br>Gregory Norden                        | Director   | May 17, 2021 |
| <u>*</u><br>Merit Cudkowicz, M.D.                 | Director   | May 17, 2021 |
| <u>*</u><br>Stefan Vitorovic                      | Director   | May 17, 2021 |
| <u>*</u><br>William Young                         | Director   | May 17, 2021 |

\*By: /s/ Marcio Souza  
Marcio Souza  
*Attorney-in-fact*

May 17, 2021

Praxis Precision Medicines, Inc.  
One Broadway, 16th Floor  
Cambridge, Massachusetts 02142

Re: Securities Registered under Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-1 (File No. 333-256005) (as amended or supplemented, the "Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of the offering by Praxis Precision Medicines, Inc., a Delaware corporation (the "Company") of up to 5,750,000 shares (the "Shares") of the Company's Common Stock, \$0.0001 par value per share, including Shares purchasable by the underwriters upon their exercise of an option to purchase additional shares granted to the underwriters by the Company. The Shares are being sold to the several underwriters named in, and pursuant to, an underwriting agreement among the Company and such underwriters (the "Underwriting Agreement").

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 opinions set forth below, on certificates of officers of the Company.

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

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 Underwriting Agreement, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement and to the references to our firm under the caption "Legal Matters" in 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