As filed with the Securities and Exchange Commission on August 7, 2026

Registration No. 333-

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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Precision BioSciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**20-4206017**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
302 East Pettigrew Street, Suite A-100 **Durham, North Carolina**	**27701**
(Address of Principal Executive Offices)	(Zip Code)

Precision BioSciences, Inc. 2019 Incentive Award Plan, as Amended and Restated
Precision BioSciences, Inc. 2019 Employee Stock Purchase Plan
(Full title of the plans)

Dario Scimeca
Chief Legal Officer & Corporate Secretary
Precision BioSciences, Inc.
302 East Pettigrew Street, Suite A-100
Durham, North Carolina 27701
(Name and address of agent for service)
(919) 314-5512
(Telephone number, including area code, of agent for service)

Copy to:
Peter N. Handrinos, Esq.
Nathan Ajiashvili, Esq.
Latham & Watkins LLP
200 Clarendon Street
Boston, Massachusetts 02116
(617) 948-6000

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	☐	Accelerated filer	☐
Non-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

This Registration Statement on Form S-8 (the “Registration Statement”) is being filed with the Securities and Exchange Commission (the “Commission”) for the purpose of registering an additional 4,900,000 shares of the Registrant’s common stock, $0.000005 par value per share (the “Common Stock”), consisting of (i) 4,400,000 shares of Common Stock under the Precision BioSciences, Inc. 2019 Incentive Award Plan, as Amended and Restated (the “2019 Plan”), which includes 3,800,000 shares of Common Stock available for issuance under the 2019 Plan and an additional 600,000 shares of Common Stock that may become issuable under the 2019 Plan pursuant to its terms, and (ii) 500,000 shares of Common Stock that became or may become issuable under the Precision BioSciences, Inc. 2019 Employee Stock Purchase Plan (the “ESPP”). The additional shares registered pursuant to the 2019 Plan and the ESPP are of the same class as other securities relating to the 2019 Plan and the ESPP for which the Registration Statements on Form S-8 (File Nos. 333-230671, 333-259369, 333-267079, 333-280618, and 333-292477) filed on April 1, 2019, September 7, 2021, August 26, 2022, July 1, 2024, and December 30, 2025 respectively, are effective.

Pursuant to Instruction E of Form S-8, the contents of the above referenced prior registration statements are incorporated by reference herein to the extent not modified or superseded hereby or by any subsequently filed document, which is incorporated by reference herein, except for Item 8, which is being updated by this Registration Statement.

Item 8. Exhibits.

		Incorporated by Reference				
Exhibit Number	**Exhibit Description**	**Form**	**File No.**	**Exhibit**	**Filing Date**	**Filed Herewith**
4.1	Amended and Restated Certificate of Incorporation of Precision BioSciences, Inc.	8-K	001-38841	3.1	04/01/2019	
4.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Precision BioSciences, Inc.	8-K	001-38841	3.1	02/13/2024	

4.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Precision BioSciences, Inc.	8-K	001-38841	3.1	05/26/2026	
4.4	Amended and Restated Bylaws of Precision BioSciences, Inc.	10-Q	001-38841	3.2	12/22/2023	
4.5	Specimen Common Stock Certificate	S-1/A	333-230034	4.1	03/18/2019	
5.1	Opinion of Latham & Watkins LLP					*
23.1	Consent of Deloitte & Touche LLP					*
23.2	Consent of Latham & Watkins LLP (included as part of Exhibit 5.1)					*
24.1	Power of Attorney (included on signature page)					*
99.1	2019 Incentive Award Plan, as Amended and Restated, and forms of award agreements thereunder	8-K	001-38841	10.1	05/26/2026	
99.2	2019 Employee Stock Purchase Plan	S-1/A	333-230034	10.11	03/18/2019	
107.1	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 Durham, State of North Carolina, on this 7th day of August, 2026.

PRECISION BIOSCIENCES, INC.

By: /s/ Dario Scimeca

Dario Scimeca
Chief Legal Officer &
Corporate Secretary

KNOW ALL MEN BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Michael Amoroso, John Alexander Kelly, and Dario Scimeca, and each of them, his true and lawful attorneys-in-fact and agents with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this

Registration Statement, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents 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 might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Name	**Title**	**Date**
/s/ Michael Amoroso Michael Amoroso	President and Chief Executive Officer and Director (*principal executive officer*)	August 7, 2026
/s/ Naresh Tanna Naresh Tanna	Chief Financial Officer *(principal financial officer)*	August 7, 2026
/s/ Mei Burris Mei Burris	Vice President of Finance and Chief Accounting Officer *(principal accounting officer)*	August 7, 2026
/s/ Melinda Brown Melinda Brown	Director	August 7, 2026
/s/ Kevin J. Buehler Kevin J. Buehler	Director	August 7, 2026
/s/ Stanley R. Frankel Stanley R. Frankel, M.D.	Director	August 7, 2026
/s/ Geno Germano Geno Germano	Director	August 7, 2026
/s/ Shari Lisa Piré Shari Lisa Piré	Director	August 7, 2026

Calculation of Filing Fee Tables

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PRECISION BIOSCIENCES INC

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
1	Equity	Common Stock, par value $0.000005 per share	Other	4,400,000	$ 6.99	$ 30,756,000.00	0.0001381	$ 4,247.40
2	Equity	Common Stock, par value $0.000005 per share	Other	500,000	$ 6.99	$ 3,495,000.00	0.0001381	$ 482.66
			Total Offering Amounts:			$ 34,251,000.00		$ 4,730.06
			Total Fee Offsets:					$ 0.00
			Net Fee Due:					$ 4,730.06

Offering Note

1

1a. Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement on Form S-8 also covers such additional shares of common stock, $0.000005 par value per share ("Common Stock"), of Precision BioSciences, Inc. (the "Registrant"), as may be issued to prevent dilution of the shares of Common Stock covered hereby resulting from stock splits, stock dividends or similar transactions.

2a. Represents an additional 4,400,000 shares of Common Stock under the Registrant's 2019 Incentive Award Plan, as Amended and Restated (the "2019 Plan"), which includes 3,800,000 shares of Common Stock available for issuance under the 2019 Plan and an additional 600,000 shares of Common Stock that may become issuable under the 2019 Plan pursuant to its terms.

3a. Represents an additional 500,000 shares of Common Stock under the Registrant's 2019 Employee Stock Purchase Plan (the "ESPP").

4a. Estimated in accordance with the provisions of Rule 457(h) and Rule 457(c) promulgated under the Securities Act solely for the purpose of calculating the registration fee and calculated based on $6.99 per share, which represents the average high and low prices of the Registrant's Common Stock reported on The Nasdaq Capital Market on July 31, 2026.

5a. The Registrant does not have any fee offsets.

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1b. Same as above.
2b. Same as above
3b. Same as above
4b. Same as above
5b. Same as above.

Table 2: Fee Offset Claims and Sources ☑Not Applicable

	Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee	Security Title Associated with Fee	Unsold Securities Associated with Fee	Unsold Aggregate Offering Amount	Fee Paid with Fee

							Offset Claimed	Offset Claimed	Offset Claimed	Associated with Fee Offset Claimed	Offset Source
					Rule 457(p)						
Fee Offset Claims											
Fee Offset Sources											

Exhibit 5.1

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New York, New York 10020-1401
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www.lw.com

LATHAM & WATKINS LLP

Precision BioSciences, Inc.
302 East Pettigrew Street, Suite A-100
Durham, North Carolina 27701

August 7, 2026

Re: Registration Statement on Form S-8 with respect to 4,900,000 shares of common stock, par value $0.000005 per share, of Precision BioSciences, Inc.

To the addressee set forth above:

We have acted as special counsel to Precision BioSciences, Inc., a Delaware corporation (the "***Company***"), in connection with the proposed issuance by the Company of up to 4,900,000 shares of common stock of the Company, par value $0.000005 per share (the "***Common Stock***"), composed of up to 4,400,000 shares of Common Stock (the "***Plan Shares***") issuable under the Company's 2019 Incentive Award Plan (as amended and restated, the "***2019 Plan***"), and up to 500,000 shares of Common Stock (together with the Plan Shares, the "***Shares***") issuable under the Company's 2019 Employee Stock Purchase Plan (the "***ESPP***"). The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "***Act***"), filed with the Securities and Exchange Commission (the "***Commission***") on August 7, 2026 (the "***Registration Statement***"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or prospectuses forming a part thereof, other than as expressly stated herein with respect to the issuance of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein only as to the General Corporation Law of the State of Delaware (the "***DGCL***"), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer

LATHAM & WATKINS LLP

agent and registrar therefor in the name or on behalf of the recipients thereof, and have been issued by the Company for legal consideration in excess of par value in the circumstances contemplated by the 2019 Plan and the ESPP, as applicable, and assuming in each case that the individual issuances, grants or awards under the 2019 Plan and the ESPP, as applicable, are duly authorized by all necessary corporate action and duly issued, granted or awarded and exercised in accordance with the requirements of law and the 2019 Plan and the ESPP (and the agreements and awards duly adopted thereunder and in accordance therewith), as applicable, the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and such Shares will be validly issued, fully paid and non-assessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Sincerely,

/s/ Latham & Watkins LLP

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 12, 2026, relating to the financial statements of Precision BioSciences, Inc. appearing in the Annual Report on Form 10-K of Precision BioSciences, Inc. for the year ended December 31, 2025.

/s/ Deloitte & Touche LLP

Raleigh, North Carolina

August 7, 2026