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

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

RayzeBio, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2834
(Primary Standard Industrial
Classification Code Number)

84-4388509
(I.R.S. Employer
Identification No.)

RayzeBio, Inc.
5505 Morehouse Drive, Suite 300
San Diego, CA 92121
(619) 937-2754

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

Ken Song, M.D.
President and Chief Executive Officer
RayzeBio, Inc.
5505 Morehouse Drive, Suite 300
San Diego, CA 92121
(619) 937-2754

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

Copies to:

Carlos Ramirez, Esq.
Charles S. Kim, Esq.
Marya Postner, Esq.
Terren J. O'Connor, Esq.
Cooley LLP
10265 Science Center Drive
San Diego, CA 92121
(858) 550-6000

Alan F. Denenberg, Esq.
Emily Roberts, Esq.
Davis Polk & Wardwell LLP
1600 El Camino Real
Menlo Park, CA 94025
(650) 752-2000

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

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 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, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. (333-274193)

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 statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 pursuant to Section 7(a)(2)(B) of the Securities Act.

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

EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

This Registration Statement is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the “**Securities Act**”) by RayzeBio, Inc. (the “**Registrant**”), for the sole purpose of increasing the aggregate number of shares of common stock offered and registered by the Earlier Registration Statement (as defined below) by 3,311,540 shares, 431,940 of which are subject to purchase upon exercise of the underwriters’ option to purchase additional shares of the Registrant’s common stock. The contents of the Registration Statement on Form S-1, as amended (File No. 333-274193), including all exhibits thereto (the “**Earlier Registration Statement**”), filed by the Registrant with the Securities and Exchange Commission (the “**Commission**”) pursuant to the Securities Act, which was declared effective by the Commission on September 14, 2023, are incorporated by reference into this Registration Statement. The additional shares of common stock that are being registered for issuance and sale pursuant to this Registration Statement are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in Exhibit 107 of the Earlier Registration Statement.

The required opinion and consents are listed on an Exhibit Index attached hereto and filed herewith.

EXHIBIT INDEX

Exhibit No.	Exhibit Index
5.1	Opinion of Cooley LLP.
23.1	Consent of Independent Registered Public Accounting Firm.
23.4	Consent of Cooley LLP (included in Exhibit 5.1).
24.1*	Power of Attorney.
107	Filing Fee Table.

* Previously filed on the signature page to the Registrant’s Registration Statement on Form S-1 (File No. 333-274193), originally filed with the Securities and Exchange Commission on August 24, 2023 and incorporated by reference herein.

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 San Diego, California on this 14th day of September 2023.

RAYZEBIO, INC.

By: /s/ Ken Song
Ken Song, M.D.
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-1 has been signed by the following persons in the capacities held on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Ken Song</u> Ken Song, M.D.	President, Chief Executive Officer and Member of the Board of Directors <i>(Principal Executive Officer)</i>	September 14, 2023
<u>/s/ Arvind Kush</u> Arvind Kush	Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	September 14, 2023
<u>*</u> Richard Heyman, Ph.D.	Chairman of the Board of Directors	September 14, 2023
<u>*</u> Maha Katabi, Ph.D.	Member of the Board of Directors	September 14, 2023
<u>*</u> Yi Larson	Member of the Board of Directors	September 14, 2023
<u>*</u> Christy Oliger	Member of the Board of Directors	September 14, 2023
<u>*</u> Aaron Royston, M.D.	Member of the Board of Directors	September 14, 2023
<u>*</u> Mary Tagliaferri, M.D.	Member of the Board of Directors	September 14, 2023
<u>*</u> Angie You, Ph.D.	Member of the Board of Directors	September 14, 2023
<u>*By: /s/ Ken Song</u> Ken Song, M.D. Attorney-in-Fact		



Carlos Ramirez
T: (858) 550-6157
cramirez@cooley.com

EXHIBIT 5.1

September 14, 2023

RayzeBio, Inc.
5505 Morehouse Drive, Suite 300
San Diego, California 92121

Ladies and Gentlemen:

We have acted as counsel to RayzeBio, Inc., a Delaware corporation (the "**Company**"), in connection with the filing by the Company of a Registration Statement on Form S-1 (the "**Registration Statement**") with the Securities and Exchange Commission (the "**Commission**") pursuant to Rule 462(b) promulgated under the Securities Act of 1933, as amended, covering an underwritten public offering of up to 3,311,540 shares of the Company's common stock, par value \$0.0001 per share ("**Shares**"). The Registration Statement incorporates by reference the registration statement on Form S-1 (No. 333-274193), which was declared effective on September 14, 2023 (the "**Prior Registration Statement**"), including the prospectus that is part of the Prior Registration Statement (the "**Prospectus**").

In connection with this opinion, we have examined and relied upon (a) the Registration Statement, the Prior Registration Statement and the Prospectus, (b) the Company's certificate of incorporation and bylaws, each as currently in effect, (c) the Company's Amended and Restated Certificate of Incorporation, filed as Exhibit 3.2 to the Prior Registration Statement, and the Company's Amended and Restated Bylaws, filed as Exhibit 3.4 to the Prior Registration Statement, each of which is to be in effect in connection with the closing of the offering contemplated by the Prior Registration Statement and (d) such other records, documents, certificates, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below.

We have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to originals of all documents submitted to us as copies, the accuracy, completeness and authenticity of certificates of public officials and the due authorization, execution and delivery of all documents by all persons other than the Company where authorization, execution and delivery are prerequisites to the effectiveness thereof. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

Our opinion is expressed only with respect to the General Corporation Law of the State of Delaware. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when sold and issued against payment therefor as described in the Registration Statement and the Prospectus, will be validly issued, fully paid and non-assessable.

Cooley LLP 10265 Science Center Drive San Diego, CA 92121
t: (858) 550-6000 f: (858) 550-6420 cooley.com



RayzeBio, Inc.
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This opinion is limited to the matters expressly set forth in this letter, and no opinion should be implied, or may be inferred, beyond the matters expressly stated. This opinion speaks only as to law and facts in effect or existing as of the date hereof and we undertake no obligation or responsibility to update or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur.

We consent to the reference to our firm under the caption "Legal Matters" in the Prospectus included in the Prior Registration Statement and to the filing of 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 Securities Act of 1933, as amended, or the rules and regulations of the Commission thereunder.

Sincerely,

Cooley LLP

By: /s/ Carlos Ramirez
Carlos Ramirez

Cooley LLP 10265 Science Center Drive San Diego, CA 92121
t: (858) 550-6000 f: (858) 550-6420 cooley.com

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement on Form S-1 filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption “Experts” and to the incorporation by reference of our report dated June 23, 2023, except for the changes to Note 8, as to which the date is September 11, 2023, with respect to the financial statements of RayzeBio, Inc. included in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-274193) and related Prospectus of RayzeBio, Inc. for the registration of its common stock.

/s/ Ernst & Young LLP

San Diego, California
September 14, 2023

Calculation of Filing Fee Tables

Form S-1
(Form Type)

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

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit ⁽²⁾	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity	Common Stock, \$0.0001 par value per share	457(a)	3,311,540	\$18.00	\$59,607,720.00	0.00011020	\$6,569
	Total Offering Amounts					\$59,607,720.00		\$6,569
	Total Fees Previously Paid							—
	Total Fee Offsets							—
	Net Fee Due							\$6,569 ⁽³⁾

- (1) Represents only the additional number of shares being registered and includes 431,940 shares of common stock issuable upon exercise of the underwriters' option to purchase additional shares. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1 (File No. 333-274193), as amended (the "Earlier Registration Statement").
- (2) Based on the public offering price.
- (3) The registration fee is calculated in accordance with Rule 457(a) under the Securities Act of 1933, as amended, based on the proposed maximum aggregate offering price. The registrant previously registered securities on the Earlier Registration Statement having a proposed maximum aggregate offering price of \$298,038,600, which was declared effective by the Securities and Exchange Commission on September 14, 2023. In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of \$59,607,720 is hereby registered, which includes shares issuable upon the exercise of the underwriters' option to purchase additional shares.