

---

---

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

---

**FORM S-8  
REGISTRATION STATEMENT**  
*Under  
The Securities Act of 1933*

---

**Relay Therapeutics, Inc.**  
(Exact name of registrant as specified in its charter)

---

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

**47-3923475**  
(I.R.S. Employer  
Identification Number)

**399 Binney Street, 2nd Floor  
Cambridge, MA 02139  
(617) 370-8837**  
(Address of Principal Executive Offices)

**Relay Therapeutics, Inc. 2020 Stock Option and Incentive Plan  
Relay Therapeutics, Inc. 2020 Employee Stock Purchase Plan**  
(Full Title of the Plans)

---

**Sanjiv K. Patel**  
**President and Chief Executive Officer**  
**Relay Therapeutics, Inc.**  
**399 Binney Street, 2nd Floor**  
**Cambridge, MA 02139**  
**(617) 370-8837**  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

---

*Copies to:*  
**Mitchell S. Bloom, Esq.**  
**William Collins, Esq.**  
**Gabriela Morales-Rivera, Esq.**  
**Goodwin Procter LLP**  
**100 Northern Avenue**  
**Boston, Massachusetts 02210**  
**(617) 570-1000**

---

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 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 <sup>(1)</sup>	Proposed Maximum Offering Price per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share	4,495,341 shares <sup>(2)</sup>	\$35.85 <sup>(3)</sup>	\$161,157,974.85 <sup>(3)</sup>	\$17,582.34
Common Stock, \$0.001 par value per share	899,068 shares <sup>(4)</sup>	\$30.47 <sup>(5)</sup>	\$27,394,601.96 <sup>(3)</sup>	\$2,988.76
Total	5,394,409 shares		\$188,552,576.81 <sup>(3)</sup>	\$20,571.10

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “Securities Act”), this registration statement shall also be deemed to cover any additional shares of common stock, \$0.001 par value per share (“Common Stock”) which become issuable under the Registrant’s 2020 Stock Option and Incentive Plan (the “2020 Plan”) and the Registrant’s 2020 Employee Stock Purchase Plan (the “2020 ESPP”), by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without the receipt of consideration which results in an increase in the number of the Registrant’s outstanding shares of Common Stock.
- (2) Represents shares of Common Stock that were added to the shares authorized for issuance under the 2020 Plan, effective as of January 1, 2021 pursuant to an “evergreen” provision contained in the 2020 Plan. Pursuant to such provision, an additional number of shares will automatically be added to the shares authorized for issuance under the 2020 Plan on January 1 of each year.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457 (c) and 457(h) of the Securities Act, and based upon the average of the high and low prices reported for the Common Stock on the Nasdaq Global Market on March 24, 2021.
- (4) Represents shares of Common Stock that were added to the shares authorized for issuance under the 2020 ESPP, effective as of January 1, 2021 pursuant to an “evergreen” provision contained in the 2020 ESPP. Pursuant to such provision, an additional number of shares will automatically be added to the shares authorized for issuance under the 2020 ESPP on January 1 of each year.
- (5) The price of \$30.47 per share, which is 85% of the average of the high and low sale prices of the Common Stock of the Registrant as quoted on the Nasdaq Global Market on March 24, 2021, is set forth solely for purposes of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act of 1933, as amended, and has been used as these shares are without a fixed price. Pursuant to the 2020 ESPP, the purchase price of the shares of Common Stock reserved for issuance thereunder will be 85% of the fair market value of a share of Common Stock on the first trading day of the offering period or on the exercise date, whichever is less.

**PART I**

**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

This Registration Statement on Form S-8 is being filed for the purpose of registering (i) an additional 4,495,341 shares of common stock, par value \$0.001 per share (“Common Stock”) of Relay Therapeutics, Inc. (the “Registrant”) to be issued under the Registrant’s 2020 Stock Option and Incentive Plan, as amended (the “2020 Plan”) and (ii) an additional 899,068 shares of Common Stock of the Registrant to be issued under the Registrant’s 2020 Employee Stock Purchase Plan (the “2020 ESPP”), for which a Registration Statement on Form S-8 (File No. 333-239912) relating to the same employee benefit plans is effective.

These additional shares are of the same class as other securities relating to the 2020 Plan and 2020 ESPP for which the Registrant’s Registration Statement on Form S-8 (File No. 333-239912) filed with the Commission on July 17, 2020 is effective.

Pursuant to General Instruction E to Form S-8, the contents of the Registration Statement on Form S-8 (File No. 333-239912) filed with the Commission on July 17, 2020 is incorporated by reference except to the extent supplemented, amended or superseded by the information set forth herein. Only those items of Form S-8 containing new information not contained in the earlier registration statement is presented herein.

**Part II**  
**INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

**Item 8. Exhibits.**

The exhibits to this Registration Statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

**EXHIBIT INDEX**

<u>Exhibit No.</u>	<u>Description</u>
4.1	<a href="#"><u>Fourth Amended and Restated Certificate of Incorporation of Relay Therapeutics, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Form 8-K (File No. 001-39385) filed on July 21, 2020).</u></a>
4.2	<a href="#"><u>Amended and Restated Bylaws of Relay Therapeutics, Inc. (incorporated by reference to Exhibit 3.2 to the Registrant's Form 8-K (File No. 001-39385) filed on July 21, 2020).</u></a>
4.3	<a href="#"><u>Specimen stock certificate evidencing the shares of common stock (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-1/A (File No. 333-239412) filed on July 9, 2020).</u></a>
4.4	<a href="#"><u>Second Amended and Restated Investors' Rights Agreement, among the Registrant and certain of its stockholders, effective as of December 19, 2018, as amended on June 26, 2020 (incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1/A (File No. 333-239412) filed on July 9, 2020).</u></a>
5.1*	<a href="#"><u>Opinion of Goodwin Procter LLP</u></a>
23.1*	<a href="#"><u>Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm</u></a>
23.2*	<a href="#"><u>Consent of Goodwin Procter LLP (included in Exhibit 5.1)</u></a>
24.1*	<a href="#"><u>Power of Attorney (included on signature page)</u></a>
99.1	<a href="#"><u>Relay Therapeutics, Inc. 2020 Stock Option and Incentive Plan, and form of award agreements thereunder (incorporated by reference to Exhibit 10.2 of the Registrant's Registration Statement on Form S-1/A (File No. 333-239412) filed on July 9, 2020).</u></a>
99.2	<a href="#"><u>Relay Therapeutics, Inc. 2020 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3 of the Registrant's Registration Statement on Form S-1/A (File No. 333-239412) filed on July 9, 2020).</u></a>

\* Filed herewith.



March 25, 2021

Relay Therapeutics, Inc.  
399 Binney St., 2nd Floor  
Cambridge, MA 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 5,394,409 shares (the "Shares") of Common Stock, \$0.001 par value per share ("Common Stock"), of Relay Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2020 Stock Option and Incentive Plan (the "2020 Plan") and the Company's 2020 Employee Stock Purchase Plan (the "2020 ESPP", and together with the 2020 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.

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 2020 Stock Option and Incentive Plan and 2020 Employee Stock Purchase Plan of Relay Therapeutics, Inc. of our report dated March 25, 2021, with respect to the consolidated financial statements of Relay 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 25, 2021