UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 4

to

FORM S-1

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)

(Primary Standard Industrial Classification Code Number) 47-3923475 (I.R.S. Employer Identification No.)

399 Binney Street, 2nd Floor Cambridge, MA 02139 (617) 370-8837

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

Sanjiv K. Patel, M.D.
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 D. Collins, Esq. Gabriela Morales-Rivera, Esq. Goodwin Procter LLP 100 Northern Avenue Boston, Massachusetts 02210 (617) 570-1000 Brian R. Adams, Esq. General Counsel Relay Therapeutics, Inc. 399 Binney Street, 2nd Floor Cambridge, MA 02139 (617) 370-8837 Patrick O'Brien, Esq. Michael S. Pilo, Esq. Ropes & Gray LLP 800 Boylston Street Boston, MA 02199-3600 (617) 951-7000

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. \square

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.

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, 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
 ⋈

 Smaller reporting com

Accelerated filer

Smaller reporting company

Emerging growth 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. \Box

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(3)	Amount of Registration Fee(4)
Common Stock, par value \$0.001 per share	23,000,000	\$19.00	\$437,000,000	\$56,722.60

- (1) Includes 3,000,000 shares that the underwriters have the option to purchase.
- (2) Estimated solely for the purpose of computing the registration fee in accordance with Rule 457(a) under the Securities Act of 1933, as amended.
- 3) Includes the aggregate offering price of 3,000,000 shares that the underwriters have the option to purchase to cover over-allotments.
- (4) Previously paid.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant files a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

Relay Therapeutics, Inc. is filing this Amendment No. 4 to its Registration Statement on Form S-1 (File No. 333-239412), which was initially filed with the Securities and Exchange Commission on June 24, 2020 (the "Registration Statement"), solely for the purpose of filing Exhibit 5.1 to the Registration Statement and making corresponding updates to Item 16 and the Exhibit Index. Accordingly, this Amendment No. 4 consists only of the facing page, this explanatory note, Part II of the Registration Statement, the signature page to the Registration Statement, and the exhibits filed herewith. This Amendment No. 4 does not contain a copy of the prospectus that was included in the Registration Statement and is not intended to amend or delete any part of the prospectus.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, to be paid by us in connection with the sale of the shares of common stock being registered hereby. All amounts shown are estimates except for the SEC registration fee.

SEC registration fee	\$	56,723
FINRA filing fee		66,050
Nasdaq Global Market listing fee		295,000
Printing and mailing expenses		415,000
Legal fees and expenses	1	1,200,000
Accounting fees and expenses		950,000
Transfer agent and registrar fees and expenses		10,000
Miscellaneous		7,227
Total	\$ 3	3,000,000

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our fourth certificate of incorporation to be in effect upon the closing of this offering and amended and restated by-laws to be in effect upon the effectiveness of this registration statement that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

In addition, the by-laws to be in effect upon the effectiveness of this registration statement provide that:

• we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and

we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our
officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited
exceptions.

We have entered into indemnification agreements with each of our directors and intend to enter into such agreements with our executive officers. These agreements provide that we will indemnify each of our directors, our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us or in furtherance of our rights. Additionally, certain of our directors or officers may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's or officer's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that our obligations to those same directors or officers are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended, or the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification of us and our directors and officers by the underwriters against certain liabilities under the Securities Act and the Securities Exchange Act of 1934.

Item 15. Recent Sales of Unregistered Securities.

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

(a) Issuances of Capital Stock

Set forth below is information regarding securities we have issued within the past three years that were not registered under the Securities Act.

In December 2017, we issued and sold an aggregate of 31,188,115 Series B preferred shares at a price per share of \$2.02 for aggregate cash consideration of approximately \$63.0 million.

In December 2018, we issued and sold an aggregate of 46,121,245 Series C preferred shares and 78,508,757 Series C-1 preferred shares at a price per share of \$3.2095 for aggregate cash consideration of approximately \$400.0 million.

No underwriters were involved in the foregoing sales of securities. Unless otherwise stated, the sales of securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, as transactions by an issuer not involving a public offering. All of the purchasers in these transactions represented to us in connection with their purchase that they were acquiring the securities for investment and not distribution, that they could bear the risks of the investment and could hold the securities for an indefinite period of time. Such purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration or an available exemption from such registration. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

(b) Grants and Exercises of Stock Options

Through June 30, 2020, we have granted stock options to purchase an aggregate of 8,648,154 shares of our common stock, with an exercise price of \$1.38 to \$14.06 per share, to employees, directors and consultants pursuant to the 2016 Plan. From 2016 through June 30, 2020, 567,860 shares of common stock have been issued upon the exercise of stock options pursuant to the 2016 Plan.

The issuances of the securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act or Rule 701 promulgated under the Securities Act as transactions pursuant to compensatory benefit plans. The shares of common stock issued upon the exercise of options are deemed to be restricted securities for purposes of the Securities Act.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits.

Exhibit Number	Description
1.1*	Form of Underwriting Agreement
3.1*	Third Certificate of Incorporation of Registrant, as amended and currently in effect.
3.2*	Form of Fourth Amended and Restated Certificate of Incorporation of Registrant, to be in effect upon completion of this offering.
3.3*	Bylaws of Registrant, as currently in effect.
3.4*	Form of Amended and Restated Bylaws of Registrant, to be in effect upon the effectiveness of this registration statement.
4.1*	Specimen Common Stock Certificate.
4.2*	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.
5.1	Opinion of Goodwin Procter LLP.
10.1#*	2016 Stock Option and Grant Plan, and form of award agreements thereunder.
10.2#*	2020 Stock Option and Grant Plan, and form of award agreements thereunder.
10.3#*	2020 Employee Stock Purchase Plan.
10.4#*	Senior Executive Cash Bonus Plan
10.5#*	Non-Employee Director Compensation Policy
10.6#*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.
10.7*	Lease Agreement between the Registrant and ARE-MA REGION NO. 58, LLC, dated as of January 10, 2018
10.8#*	Form of Amended and Restated Employment Agreement.
10.9#*	Amended and Restated Employment Agreement, by and between the Registrant and Sanjiv K. Patel dated March 25, 2020.
10.10†*	Amended and Restated Collaboration and License Agreement, by and between the Registrant and D. E. Shaw Research, LLC dated June 15, 2020.

Exhibit Number	Description
21.1*	List of Subsidiaries of Registrant.
23.1*	Consent of Ernst & Young, independent registered public accounting firm.
23.2	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included on signature page).

- * Previously Filed
- † Portions of this exhibit (indicated by asterisks) will be omitted in accordance with the rules of the Securities and Exchange Commission.
- # Indicates a management contract or any compensatory plan, contract or arrangement.
 - (b) Financial Statement Schedules.

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Act, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes that:

- (a) The Registrant will provide to the underwriter at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.
- (b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.
- (c) For the purpose of determining any liability under the Securities Act of 1933, as amended, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, Relay Therapeutics, Inc. has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on the 15th day of July, 2020.

Relay Therapeutics, Inc.

/s/ Sanjiv K. Patel

Name: Sanjiv K. Patel

Title: President and Chief Executive Officer

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
/s/ Sanjiv K. Patel Sanjiv K. Patel, M.D.	President, Chief Executive Officer and Director (Principal Executive Officer)	July 15, 2020
/s/ Thomas Catinazzo Thomas Catinazzo	Vice President, Finance (Principal Accounting Officer and Principal Financial Officer)	July 15, 2020
* Alexis Borisy	Director	July 15, 2020
* Linda A. Hill, Ph.D.	Director	July 15, 2020
* Douglas S. Ingram	Director	July 15, 2020
* Christoph Lengauer, Ph.D.	Director	July 15, 2020
* Mark Murcko, Ph.D.	Director	July 15, 2020
* Dipchand (Deep) Nishar	Director	July 15, 2020
* Jami Rubin	Director	July 15, 2020
* Laura Shawver, Ph.D.	Director	July 15, 2020
*By: /s/ Sanjiv K. Patel	_	

Sanjiv K. Patel, M.D. Attorney-in-Fact

Relay Therapeutics, Inc. 399 Binney St., 2nd Floor Cambridge, MA 02139

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

We have acted as counsel to you in connection with your filing of a Registration Statement on Form S-1 (File No. 333-239412) (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 Relay Therapeutics, Inc., a Delaware corporation (the "Company") of up to 23,000,000 shares (the "Shares") of the Company's Common Stock, \$0.001 par value per share, including 3,000,000 Shares purchasable by the underwriters upon their exercise of an over-allotment option 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