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

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

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**TRANSCODE THERAPEUTICS, INC.**  
(Exact name of registrant as specified in its charter)

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

**81-1065054**  
(I.R.S. Employer  
Identification Number)

**6 Liberty Square, #2382**  
**Boston, MA 02109**  
**(857) 837-3099**  
(Address of Principal Executive Offices)  
**TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan**  
**TransCode Therapeutics, Inc. 2021 Employee Stock Purchase Plan**  
(Full Title of the Plans)

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**R. Michael Dudley**  
**Chief Executive Officer**  
**6 Liberty Square, #2382**  
**Boston, MA 02109**  
**(857) 837-3099**  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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**Copies to:**  
**Michael Bison, Esq.**  
**Jacqueline R. Kaufman, 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

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.

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## EXPLANATORY NOTE

This Registration Statement on Form S-8 registers 735,228 additional shares of Common Stock under the following employee benefits plans for which a Registration Statement on Form S-8 was previously filed by the Registrant with the Securities and Exchange Commission (the “SEC” or the “Commission”): (i) the TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan (the “2021 Plan”), as a result of the operation of an automatic annual increase provision therein, which added an aggregate of 645,228 shares of Common Stock on January 1, 2022, and (ii) the TransCode Therapeutics, Inc. 2021 Employee Stock Purchase Plan (the “2021 ESPP”), as a result of the operation of an automatic annual increase provision therein, which added an aggregate of 90,000 shares of Common Stock on January 1, 2022. The 2021 Plan provides that additional shares will automatically be added to the shares authorized for issuance under the 2021 Plan on January 1 of each year. The number of shares added each year will be equal to the lesser of: (i) 5% of the outstanding shares on the immediately preceding December 31 or (ii) such lesser amount as determined by the compensation committee of the Company’s board of directors. The 2021 ESPP provides that additional shares will automatically be added to the shares authorized for issuance under the 2021 ESPP on January 1 of each year. The number of shares added each year will be equal to the least of: (i) 1% of the outstanding shares on the immediately preceding December 31, (ii) 90,000 shares of common stock, or (iii) such amount as determined by the 2021 ESPP plan administrator. The additional shares are of the same class as other securities relating to the 2021 Plan and the 2021 ESPP for which the Registrant’s Registration Statement filed on Form S-8 (Registration No. 333-257868) on July 13, 2021 is effective.

The information contained in the Registrant’s registration statement on [Form S-8 \(Registration No. 333-257868\)](#) is hereby incorporated by reference pursuant to General Instruction E.

### **PART I INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

The information called for in Part I of Form S-8 to be contained in the Section 10(a) prospectus is not being filed with or included in this Registration Statement (by incorporation by reference or otherwise) in accordance with the rules and regulations of the Commission. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the employee benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act of 1933, as amended (the “Securities Act”).

### **PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

The Registrant hereby incorporates by reference into this Registration Statement the following documents filed with the SEC:

- (a) [The contents of the Registrant’s Registration Statement on Form S-8 filed with the Commission on July 13, 2021 \(File No. 333-257868\);](#)
- (b) [The Registrant’s Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Commission on March 31, 2022;](#)
- (c) All other reports filed by the Registrant pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), since December 31, 2021; and
- (d) [The description of the Registrant’s common stock contained in the Registrant’s Registration Statement on Form 8-A \(File No. 001-40363\), filed by the Registrant with the Commission under Section 12\(b\) of the Exchange Act on April 26, 2021, including any amendments or reports filed for the purpose of updating such description.](#)

All documents that the Registrant subsequently files pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment to this Registration Statement which indicates that all of the shares of common stock offered have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference into this Registration Statement and to be a part hereof from the date of the filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

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**Item 8. Exhibits.**

See the Exhibit Index for a list of exhibits filed as part of this Registration Statement, which Exhibit Index is incorporated in this section by reference.

**EXHIBIT INDEX**

<b>Exhibit No.</b>	<b>Description</b>
<a href="#"><u>4.1</u></a>	<a href="#"><u>Amended and Restated Certificate of Incorporation of TransCode Therapeutics, Inc. (incorporated by reference to Exhibit 3.3 to the Registrant's Registration Statement on Form S-1, filed on February 26, 2021 (File No. 333-253599)).</u></a>
<a href="#"><u>4.2</u></a>	<a href="#"><u>Amended and Restated Bylaws of TransCode Therapeutics, Inc. (incorporated by reference to Exhibit 3.5 to the Registrant's Registration Statement on Form S-1, filed on February 26, 2021 (File No. 333-253599)).</u></a>
<a href="#"><u>5.1*</u></a>	<a href="#"><u>Opinion of Goodwin Procter LLP.</u></a>
<a href="#"><u>23.1*</u></a>	<a href="#"><u>Consent of WithumSmith+Brown, PC, Independent Registered Public Accounting Firm.</u></a>
<a href="#"><u>23.2*</u></a>	<a href="#"><u>Consent of Goodwin Procter LLP (included in Exhibit 5.1).</u></a>
<a href="#"><u>24.1*</u></a>	<a href="#"><u>Power of Attorney (included on signature page).</u></a>
<a href="#"><u>99.1</u></a>	<a href="#"><u>2021 Stock Option and Incentive Plan and forms of award agreements thereunder (incorporated by reference to Exhibit 10.2 to the Registrant's Registration Statement on Form S-1, filed on March 24, 2021 (File No. 333-253599)).</u></a>
<a href="#"><u>99.2</u></a>	<a href="#"><u>2020 Stock Option and Equity Incentive Plan and forms of award agreements thereunder (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form S-1, filed on February 26, 2021 (File No. 333-253599)).</u></a>
<a href="#"><u>99.3</u></a>	<a href="#"><u>2021 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.8 to the Registrant's Registration Statement on Form S-1, filed on March 24, 2021 (File No. 333-253599)).</u></a>
<a href="#"><u>107*</u></a>	<a href="#"><u>Filing Fee Table.</u></a>

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\* Filed herewith.

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## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, 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 Boston, Commonwealth of Massachusetts, on the 9th day of June.

### TRANSCODE THERAPEUTICS, INC.

By: /s/ Robert Michael Dudley  
Robert Michael Dudley  
*Chief Executive Officer*

### POWER OF ATTORNEY AND SIGNATURES

KNOW ALL BY THESE PRESENTS, that each individual whose signature appears below hereby constitutes and appoints Robert Michael Dudley and Thomas A. Fitzgerald as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent 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 such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Robert Michael Dudley</u> Robert Michael Dudley	Director and Chief Executive Officer <i>(Principal Executive Officer)</i>	June 9, 2022
<u>/s/ Thomas A. Fitzgerald</u> Thomas A. Fitzgerald, MBA	Director and Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	June 9, 2022
<u>/s/ Philippe P. Calais</u> Philippe P. Calais, PhD	Director	June 9, 2022
<u>/s/ Erik Manting</u> Erik Manting, PhD	Director	June 9, 2022
<u>/s/ Magda Marquet</u> Magda Marquet, PhD	Director	June 9, 2022



Goodwin Procter LLP  
100 Northern Avenue,  
Boston, MA 02219  
goodwinlaw.com  
617-570-1000

June 9, 2022

TransCode Therapeutics, Inc.  
6 Liberty Square, #2382  
Boston, MA 02109

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 735,228 shares (the "Shares") of Common Stock, \$0.0001 par value per share ("Common Stock"), of TransCode Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan and the TransCode Therapeutics, Inc. 2021 Employee Stock Purchase Plan (collectively, 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

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement of our report dated March 31, 2022, which includes an explanatory paragraph relating to TransCode Therapeutics, Inc.'s ability to continue as a going concern, relating to the financial statements of TransCode Therapeutics, Inc. appearing in the entity's Annual Report on Form 10-K for the year ended December 31, 2021.

/s/ WithumSmith+Brown, PC

East Brunswick, New Jersey  
June 9, 2022

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## CALCULATION OF FILING FEE TABLES

Form S-8  
(Form Type)TransCode Therapeutics, Inc.  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.0001 par value per share, TransCode Therapeutics, Inc. 2021 Stock Option and Incentive Plan	Other – 457(c) and 457(h)	645,228 shares(2)	\$ 1.82(3)	\$ 1,174,314.96	\$ 0.0000927	\$ 108.86
Equity	Common Stock, \$0.0001 par value per share, TransCode Therapeutics, Inc. 2021 Employee Stock Purchase Plan	Other – 457(c) and 457(h)	90,000 shares(4)	\$ 1.55(5)	\$ 139,500.00	\$ 0.0000927	\$ 12.93
<b>Total Offering Amounts</b>					\$ 1,313,814.96		\$ 121.79
<b>Total Fee Offsets</b>							-
<b>Net Fee Due</b>							\$ 121.79

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, this Registration Statement shall also cover any additional shares of common stock which become issuable under the above-named plans 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 Registrant's outstanding shares of common stock. Pursuant to Rule 416(c) under the Securities Act, this Registration Statement shall also cover an indeterminate amount of interests to be offered or sold pursuant to the employee benefit plans described herein.

(2) Represents an increase in the number of shares available for issuance under the Registrant's 2021 Stock Option and Incentive Plan (the "2021 Plan"), effective as of January 1, 2022. The 2021 Plan provides that on January 1 of each year additional shares will automatically be added to the shares authorized for issuance under the 2021 Plan. The number of shares added each year will be equal to the lesser of: (i) 5% of the outstanding shares on the immediately preceding December 31 or (ii) such lesser amount as determined by the compensation committee of the Company's board of directors. Shares available for issuance under the 2021 Plan were previously registered on Form S-8 filed with the Securities and Exchange Commission on July 13, 2021 (Registration No. 333-257868).

(3) Estimated in accordance with Rule 457(c) and (h) solely for the purpose of calculating the registration fee and based on \$1.82, the average of the high and low sale prices of the Registrant's common stock as reported on the Nasdaq Capital Market on June 8, 2022.

(4) Represents an increase in the number of shares available for issuance under the Registrant's 2021 Employee Stock Purchase Plan (the "2021 ESPP"), effective as of January 1, 2022. The 2021 ESPP provides that on January 1 of each year additional shares will automatically be added to the shares authorized for issuance under the 2021 ESPP. The number of shares added each year will be equal to the least of: (i) 1% of the outstanding shares on the immediately preceding December 31, (ii) 90,000 shares of common stock, or (iii) such amount as determined by the 2021 ESPP plan administrator. Shares available for issuance under the 2021 ESPP were previously registered on Form S-8 filed with the Securities and Exchange Commission on July 13, 2021 (Registration No. 333-257868).

(5) Estimated in accordance with Rule 457(c) and (h) solely for the purpose of calculating the registration fee and based on \$1.82, the average of the high and low prices of the Registrant's common stock as reported on the Nasdaq Capital Market on June 8, 2022, multiplied by 85.0%, which is the percentage of the price per share applicable to purchases under the 2021 ESPP. Pursuant to the 2021 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.