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

FORM S-8 REGISTRATION STATEMENT UNDER

THE SECURITIES ACT OF 1933

TSCAN THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

830 Winter Street Waltham, Massachusetts (Address of Principal Executive Offices) 82-5282075 (I.R.S. Employer Identification No.)

> 02451 (Zip Code)

TSCAN THERAPEUTICS, INC. 2021 EQUITY INCENTIVE PLAN TSCAN THERAPEUTICS, INC. 2021 EMPLOYEE STOCK PURCHASE PLAN (Full title of the plan)

> David Southwell Chief Executive Officer TScan Therapeutics, Inc. 830 Winter Street Waltham, Massachusetts 02451 (Name and address of agent for service)

(857) 399-9500 (Telephone number, including area code, of agent for service)

> *Copies to:* William D. Collins, 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 \Box

 \times

Non-accelerated filer

Accelerated filer

Smaller reporting company \square

Emerging growth company \square

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 registers (i) 969,038 additional shares of the Registrant's common stock, \$0.0001 par value per share ("Common Stock"), under the TScan Therapeutics, Inc. 2021 Equity Incentive Plan (the "2021 Plan") and (ii) 242,259 additional shares of Common Stock under the TScan Therapeutics, Inc. 2021 Employee Stock Purchase Plan (the "2021 ESPP"). The number of shares of Common Stock reserved and available for issuance under the 2021 Plan is subject to an automatic annual increase on each January 1, beginning in 2022, by an amount equal to four percent of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31 or such lesser number of shares of Common Stock as determined by the Administrator (as defined in the 2021 Plan). Accordingly, on January 1, 2023, the number of shares of Common Stock reserved and available for issuance under the 2021 Plan increased by 969,038. The additional shares are of the same class as other securities relating to the 2021 Plan for which the Registrant's registration statement filed on Form S-8 (Registration No. 333-257941) on July 16, 2021 and registration statement filed on Form S-8 (Registration No. 333-263380), filed on March 9, 2022, are effective. The number of shares of Common Stock reserved and available for issuance under the 2021 ESPP is subject to an automatic annual increase on each January 1, beginning in 2022, by an amount equal to the least of (i) one percent of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31 or (ii) such number of shares of Common Stock as determined by the Administrator (as defined in the 2021 ESPP). Accordingly, on January 1, 2023, the number of shares of Common Stock reserved and available for issuance under the 2021 ESPP increased by 242,259. The additional shares are of the same class as other securities relating to the 2021 ESPP for which the Registrant's registration statement filed on Form S-8 (Registration No. 333-257941) on July 16, 2021 and registration statement filed on Form S-8 (Registration No. 333-263380), filed on March 9, 2022, are effective. The information contained in the Registrant's registration statements on Form S-8 (Registration No. 333-257941 and No. 333-263380) is hereby incorporated by reference pursuant to General Instruction E.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.

Exhibit <u>No.</u>	Description					
4.1	Amended and Restated Certificate of Incorporation of the Registrant (Incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (File No. 001-40603) filed with the Securities and Exchange Commission on July 20, 2021).					
4.2	Amended and Restated By-laws of the Registrant (Incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K (File No. 001-40603) filed with the Securities and Exchange Commission on July 20, 2021).					
4.4	Fourth Amended and Restated Investors' Rights Agreement by and among the Registrant and the other parties thereto, dated January 15, 2021(Incorporated by reference to Exhibit 4.2 to the Registrant's Registration Statement on Form S-1 (File No. 333-255491) filed with the Securities and Exchange Commission on April 23, 2021).					
5.1*	Opinion of Goodwin Procter LLP.					
23.1*	Consent of Deloitte & Touche LLP, 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).					
99.1	2021 Equity Incentive Plan and forms of agreements thereunder (Incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-1/A (File No. 333-255491) filed with the Securities and Exchange Commission on May 5, 2021).					

99.2 2021 Employee Stock Purchase Plan (Incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form S-1/A (File No. 333-255491) filed with the Securities and Exchange Commission on April 30, 2021).

* Filed herewith.

^{107.1* &}lt;u>Filing Fee Table.</u>

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 Waltham, Commonwealth of Massachusetts, on March 8, 2023.

TScan Therapeutics, Inc.

By: /s/ David Southwell

David Southwell Chief Executive Officer (Principal Executive Officer)

POWER OF ATTORNEY AND SIGNATURES

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David Southwell and Brian Silver, and each of them, as such person's true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them, for such person in such person's, place and stead, in any and all capacities, to sign for us and in our names in the capacities indicated below the Registration Statement on Form S-8 of TScan Therapeutics, Inc., and any or all amendments (including post-effective amendments), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in connection therewith 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 any of them, 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, as amended, this Registration Statement on Form S-8 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ David Southwell David Southwell	President,. Chief Executive Officer and Director (Principal Executive Officer)	March 8, 2023
/s/ Brian Silver Brian Silver	Chief Financial Officer (Principal Financial and Accounting Officer)	March 8, 2023
/s/ Stephen Biggar Stephen Biggar M.D., Ph.D.	Director	March 8, 2023
/s/ Ittai Harel Ittai Harel	Director	March 8, 2023
/s/ Timothy Barberich Timothy Barberich	Director	March 8, 2023
/s/ Gabriela Gruia Gabriela Gruia, M.D.	Director	March 8, 2023
/s/ Katina Dorton Katina Dorton, J.D., M.B.A	Director	March 8, 2023



Goodwin Procter LLP The New York Times Building 620 Eighth Avenue New York, NY 10018

goodwinlaw.com +1 212 813 8800

March 8, 2023

TScan Therapeutics, Inc. 830 Winter Street Waltham, Massachusetts 02451

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 1,211,297 shares (the "Shares") of Common Stock, \$0.0001 par value per share ("Common Stock"), of TScan Therapeutics, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 2021 Equity Incentive Plan and 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.

This opinion letter and the opinion it contains shall be interpreted in accordance with the Core Opinion Principles as published in 74 *Business Lawyer* 815 (Summer 2019).

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.

TScan Therapeutics, Inc. March 8, 2023 Page 2

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 this Registration Statement on Form S-8 of our report dated March 8, 2023, relating to the financial statements of TScan Therapeutics, Inc. appearing in the Annual Report on Form 10-K of TScan Therapeutics, Inc. for the year ended December 31, 2022.

/s/ Deloitte & Touche LLP

Boston, Massachusetts March 8, 2023

Calculation of Filing Fee Tables

Form S-8

(Form Type)

TScan Therapeutics, Inc.

(Exact Name of Registrant as Specified in its Charter)

<u>ruble 1. realistered Securites</u>										
Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee			
	Common									
	Stock,									
	\$0.0001									
	par value		969,038							
Equity	per share	Other(2)	shares(3)	\$3.04(2)	\$2,945,875.52(2)	\$0.0001102	\$324.64			
	Common									
	Stock,									
	\$0.0001									
	par value		242,259							
Equity	per share	Other(4)	shares(5)	\$2.58(4)	\$625,028.22(4)	\$0.0001102	\$68.88			
Total Offering Amounts					\$3,570,903.74		\$393.52			
Total Fee Offsets							\$0			
Net Fee Due							\$393.52			
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Table 1: Newly Registered Securities

(1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of common stock, \$0.0001 par value per share (the "Common Stock"), which become issuable under the TScan Therapeutics, Inc. 2021 Equity Incentive Plan (the "2021 Plan") and the TScan Therapeutics, Inc. 2021 Employee Stock Purchase Plan (the "2021 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) The price of \$3.04 per share, which is the average of the high and low sale prices of the Registrant's Common Stock on the Nasdaq Global Market on March 6, 2023, is set forth solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act.

(3) Represents an automatic increase of 969,038 shares of Common Stock to the number of shares available for issuance under the 2021 Plan, effective January 1, 2023. Shares available for issuance under the 2021 Plan were previously registered on registration statements on Form S-8 filed with the Securities and Exchange Commission on July 16, 2021 (Registration No. 333-257941) and March 9, 2022 (Registration No. 333-263380).

(4) The price of \$2.58 per share, which is 85% of the average of the high and low sale prices of the Registrant's Common Stock the Nasdaq Global Market on March 6, 2023, is set forth solely for purposes of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act. 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 purchase date, whichever is less.

(5) Represents an automatic increase 242,259 shares of Common Stock to the number of shares available under the 2021 ESPP, effective January 1, 2023. Shares available for issuance under the 2021 ESPP were previously registered on registration statements on Form S-8 filed with the Securities and Exchange Commission on July 16, 2021 (Registration No. 333-257941) and March 9, 2022 (Registration No. 333-263380).