UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

Under The Securities Act of 1933

SOLENO THERAPEUTICS, INC.

(Exact name of Registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

77-0523891 (I.R.S. Employer Identification Number)

203 Redwood Shores Pkwy, Suite 500
Redwood City, CA 94065
(Address of principal executive offices, including zip code)

Amended and Restated 2014 Equity Incentive Plan 2020 Inducement Equity Incentive Plan (Full title of the plan)

> Anish Bhatnagar Chief Executive Officer Soleno Therapeutics, Inc. 203 Redwood Shores Pkwy, Suite 500 Redwood City, CA 94065 (Name and address of agent for service)

> > (650) 213-8444

(Telephone number, including area code, of agent for service)

Copies to:

Elton Satusky Jesse Schumaker Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304 (650) 493-9300

J	hether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated fileccelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the	, , , , , ,	See
Large accelerated filer		Accelerated filer	
Non-accelerated filer		Smaller reporting company	\times
		Emerging growth company	
	mpany, indicate by check mark if the registrant has elected not to use the extended transfection $\Gamma(a)(2)(B)$ of the Securities Act. \square	tion period for complying with any	,

EXPLANATORY NOTE

This Registration Statement on Form S-8 (the "Registration Statement") registers shares of Common Stock ("Shares") of Soleno Therapeutics, Inc. (the "Registrant") reserved for issuance under the Registrant's Amended and Restated 2014 Equity Incentive Plan (the "2014 Plan") and 2020 Inducement Equity Incentive Plan (the "Inducement Plan"). The number of Shares available for grant and issuance under the 2014 Plan is subject to an annual increase on the first day of each fiscal year, by an amount equal to the least of (i) 238,329 Shares, (ii) four percent (4%) of the outstanding shares of all classes of the Registrant's common stock on the last day of the immediately preceding fiscal year and (iii) such number of Shares determined by the Registrant's board of directors. The number of Shares available for grant and issuance under the Inducement Plan has been determined by the Registrant's board of directors.

This Registration Statement registers (i) 238,329 Shares available for grant and issuance under the 2014 Plan, all of which became available for grant and issuance under the 2014 Plan on January 1, 2023 and (ii) 500,000 Shares available for issuance under the Inducement Plan, all of which became available for grant and issuance under the Inducement Plan on February 17, 2023.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the "Securities Act"), and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the "Commission"):

- (1) The Registrant's Annual Report on Form 10-K for the year ended December 31, 2022 (the "Annual Report"), as filed with the Commission on March 22, 2023 pursuant to Sections 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act");
- (2) All other reports filed with the Commission pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Annual Report; and
- (3) The description of the Registrant's common stock contained in the <u>Exhibit 4.29</u> to the Registrant's Annual Report, filed with the Commission on March 22, 2023.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; *provided*, *however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also 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 furnished 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.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, the Registrant's amended and restated certificate of incorporation includes provisions that eliminate the personal liability of its directors for monetary damages for breach of their fiduciary duty as directors, excluding liability for any breach of the duty of loyalty.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, the amended and restated certificate of incorporation and amended and restated bylaws of the Registrant provide that:

- The Registrant shall indemnify its directors and officers for serving the Registrant in those capacities or for serving other business enterprises at the Registrant's request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- The Registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law.
- The Registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- The Registrant will not be obligated pursuant to the amended and restated bylaws to indemnify a person with respect to proceedings initiated by that person, except with respect to proceedings authorized by the Registrant's board of directors or brought to enforce a right to indemnification.
- The rights conferred in the amended and restated certificate of incorporation and amended and restated bylaws are not exclusive, and the Registrant is authorized to enter into indemnification agreements with its directors, officers, employees and agents and to obtain insurance to indemnify such persons.
- The Registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees and agents.

The Registrant has entered into separate indemnification agreements with each of its directors and officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the Delaware General Corporation Law and also to provide for certain additional procedural protections. The Registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements entered into between the Registrant and its officers and directors may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

See also the undertakings set out in response to Item 9 herein.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

		Incorporated by Reference			
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
4.1	Form of the Registrant's common stock certificate	S-1/A	333-196635	4.1	08/05/2014
4.2	Amended and Restated 2014 Equity Incentive Plan and forms of agreement thereunder	S-8	333-239496	4.2	06/26/2020
4.3	2020 Inducement Equity Incentive Plan, as amended, and forms of agreement thereunder	8-K	001-36593	10.1	2/24/2023

		Incorporated by Reference			
Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation (contained in Exhibit 5.1 hereto)				
23.1	Consent of Marcum LLP, Independent Registered Public Accounting Firm (contained in Exhibit 23.1 hereto)				
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (contained in Exhibit 5.1 hereto)				
24.1	Power of Attorney (contained on signature page hereto)				
107.1	Calculation of Filing Fees Table				
10/.1	Catediation of Fining Fees Table				

Item 9. Undertakings.

- A. The undersigned Registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement.

Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

Provided, however, that paragraphs (A)(1)(i) and (A)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment 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.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- B. The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement 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.

C. Insofar as indemnification for liabilities arising under the Securities 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 Commission such indemnification is against public policy as expressed in the Securities 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 Securities Act and will be governed by the final adjudication of such issue.

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 Redwood City, California, on the 23rd day of March, 2023.

SOLENO THERAPEUTICS, INC.

By: /s/ Anish Bhatnagar
Anish Bhatnagar
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Anish Bhatnagar as his true and lawful attorney-in-fact and agent with full power of substitution, for him in any and all capacities, to sign any and all amendments to this registration statement on Form S-8 (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 attorney-in-fact, proxy and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, 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/ Anish Bhatnagar Anish Bhatnagar	President, Chief Executive Officer and Director (Principal Executive Officer)	March 23, 2023
/s/ James Mackaness James Mackaness	Chief Financial Officer (Principal Financial and Accounting Officer)	March 23, 2023
/s/ Ernest Mario Ernest Mario	Chairman	March 23, 2023
/s/ William G. Harris William G. Harris	Director	March 23, 2023
/s/ Gwen Melincoff Gwen Melincoff	Director	March 23, 2023
/s/ Andrew Sinclair Andrew Sinclair	Director	March 23, 2023
/s/ Birgitte Volck Birgitte Volck	Director	March 23, 2023



Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304-1050

> O: 650.493.9300 F: 650.493.6811

March 23, 2023

Soleno Therapeutics, Inc. 203 Redwood Shores Pkwy, Suite 500 Redwood City, CA 94065

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "**Registration Statement**") to be filed by Soleno Therapeutics, Inc., a Delaware corporation, with the Securities and Exchange Commission on or about the date hereof, in connection with the registration under the Securities Act of 1933, as amended, of 238,329 shares of Common Stock reserved for issuance pursuant to the Soleno Therapeutics, Inc. 2014 Equity Incentive Plan (the "2014 Plan") and 500,000 shares of Common Stock reserved for issuance pursuant to the Soleno Therapeutics, Inc. 2020 Inducement Equity Incentive Plan (the "Inducement Plan", and together with the 2014 Plan, the "Plans"), all of which shares of Common Stock are referred to herein as the "Shares". As your legal counsel, we have examined the proceedings taken and proposed to be taken in connection with the issuance, sale and payment of consideration for the Shares to be issued under the Plans.

On the basis of the foregoing, and in reliance thereon, we are of the opinion that the Shares, when issued and sold in the manner referred to in the Plans and pursuant to the agreements that accompany the Plans, will be legally and validly issued, fully paid, and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

WILSON SONSINI GOODRICH & ROSATI Professional Corporation

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Soleno Therapeutics, Inc. on Form S-8 of our report, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, dated March 22, 2023 with respect to our audits of the consolidated financial statements of Soleno Therapeutics, Inc. as of December 31, 2022 and 2021 and for each of the two years in the period ended December 31, 2022 appearing in the Annual Report on Form 10-K of Soleno Therapeutics, Inc. for the year ended December 31, 2022.

/s/ Marcum LLP

Marcum LLP San Francisco, CA March 22, 2023

CALCULATION OF REGISTRATION FEE TABLES

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

Table 1 – Newly Registered Securities

Security Type	Securities Class Type	Fee Calculation Rule	Amount to be Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common	Tuic	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
-45	Stock						
	\$0.001 par						
	value,						
	reserved for						
	issuance						
	pursuant to						
	Amended						
	and Restated						
	2014 Equity	Rules					
	Incentive	457(c)	220 220 1 (2)	ΦD 075(4)	Ф40.4 EDD 655	0.0001100	ΦE 4 FO
	Plan	and (h)	238,329 shares ⁽²⁾	\$2.075(4)	\$494,532.675	0.0001102	\$54.50
Equity	Common						
	Stock						
	\$0.001 par						
	value,						
	reserved for						
	issuance						
	pursuant to 2020						
	Inducement						
	Equity	Rules					
	Incentive	457(c)					
	Plan	and (h)	500,000 shares (3)	2.075(4)	\$1,037,500.00	0.0001102	\$114.34
TOTAL OFF	FERING AMO		738,329 shares		\$1,532,032.675		\$168.84
TOTAL FEE OFFSETS (5)							
	Γ FEE DUE						\$168.84

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement covers any additional shares of the Registrant's common stock that become issuable under the Registrant's Amended and Restated 2014 Equity Incentive Plan (the "2014 Plan") and 2020 Inducement Equity Incentive Plan (the "Inducement Plan"), by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration that results in an increase in the number of outstanding shares of common stock.
- (2) Represents an automatic increase of 238,329 shares of the Registrant's common stock reserved for issuance under, and which annual increase is provided for in, the 2014 Plan.
- (3) Represents 500,000 shares of the Registrant's common stock reserved for issuance under the Inducement Plan, all of which were reserved for issuance on February 17, 2023 as the result of an increase to the Inducement Plan approved by the Registrant's board of directors.
- (4) Estimated in accordance with Rules 457(c) and (h) of the Securities Act solely for the purpose of calculating the registration fee on the basis of \$2.075 per share, which represents the average of the high and low prices on the common stock as reported on the Nasdaq Global Select Market on March 20, 2023.
- (5) The Registrant does not have any fee offsets.