

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

**FORM S-8  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933**

**AN2 Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

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

**82-0606654**  
(I.R.S. Employer  
Identification No.)

**1800 El Camino Real, Suite D  
Menlo Park, California 94027**  
(Address of principal executive offices) (Zip code)

**AN2 Therapeutics, Inc. 2022 Equity Incentive Plan  
AN2 Therapeutics, Inc. 2022 Employee Stock Purchase Plan**  
(Full titles of the plans)

**Eric Easom  
Chief Executive Officer  
AN2 Therapeutics, Inc.  
1800 El Camino Real, Suite D  
Menlo Park, California 94027  
(650) 331-9090**

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

**Copies to:**

**Kathleen M. Wells  
Richard Kim  
Latham & Watkins LLP  
140 Scott Drive  
Menlo Park, California 94025  
(650) 328-4600**

**Lucy O. Day  
AN2 Therapeutics, Inc.  
1800 El Camino Real, Suite D  
Menlo Park, California 94027  
(650) 331-9090**

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	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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  
REGISTRATION OF ADDITIONAL SHARES**

Pursuant to General Instruction E of Form S-8, AN2 Therapeutics, Inc. (the "Registrant") is filing this Registration Statement on Form S-8 with the Securities and Exchange Commission (the "Commission") for the purpose of registering (i) 1,189,657 additional shares of its Common Stock, par value \$0.00001 per share ("Common Stock"), under the 2022 Equity Incentive Plan (the "2022 Plan"), pursuant to the provisions of the 2022 Plan providing for an automatic increase in the number of shares of Common Stock reserved and available for issuance under the 2022 Plan on January 1, 2024, and (ii) 297,414 additional shares of its Common Stock under the 2022 Employee Stock Purchase Plan (the "2022 ESPP," together with the 2022 Plan, the "Plans"), pursuant to the provisions of the 2022 ESPP providing for an automatic increase in the number of shares of Common Stock reserved and available for issuance under the 2022 ESPP on January 1, 2024. In accordance with the instructional note to Part I of Form S-8 as promulgated by the Commission, the information specified by Part I of the Form S-8 has been omitted from this Registration Statement.

The Registrant previously registered shares of its Common Stock for issuance under the Plans on a Registration Statement on Form S-8 filed with the Commission on March 29, 2022 ([File No. 333-263917](#)) and a Registration Statement on Form S-8 filed with the Commission on March 30, 2023 ([File No. 333-270962](#)). Pursuant to General Instruction E to Form S-8, this Registration Statement hereby incorporates by reference the contents of the Registration Statements referenced above except as set forth below.

**PART II**

**INFORMATION REQUIRED IN REGISTRATION STATEMENT**

**ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE**

The following documents filed by the Registrant with the Commission are incorporated by reference into this Registration Statement:

- (a) The Registrant's [Annual Report on Form 10-K](#) for the fiscal year ended December 31, 2023, filed with the Commission on March 29, 2024.
  - (b) The Registrant's [Current Report on Form 8-K](#), filed with the Commission on February 12, 2024.
  - (c) The description of the Registrant's Common Stock which is contained in the Registrant's Registration Statement on Form 8-A filed on March 22, 2022 ([File No. 001-41331](#)) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as updated by [Exhibit 4.3](#) to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the Commission on March 29, 2023, including any amendment or report filed for the purpose of updating such description.
  - (d) All other reports and documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits furnished on such form that relate to such items) on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part of this Registration Statement from the date of the filing of such reports and documents. 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 that 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.
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## ITEM 8. EXHIBITS

Exhibit Number	Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
4.1	<a href="#">Amended and Restated Certificate of Incorporation of the Registrant.</a>	S-1	333-263295	3.2	March 4, 2022
4.2	<a href="#">Amended and Restated Bylaws of the Registrant.</a>	S-1	333-263295	3.4	March 4, 2022
4.3	<a href="#">Form of Common Stock Certificate of the Registrant.</a>	S-1	333-263295	4.1	March 21, 2022
5.1*	<a href="#">Opinion of Latham &amp; Watkins LLP.</a>				
23.1*	<a href="#">Consent of Latham &amp; Watkins LLP (included in Exhibit 5.1).</a>				
23.2*	<a href="#">Consent of Independent Registered Public Accounting Firm.</a>				
24.1*	<a href="#">Power of Attorney (included on the signature page of this Registration Statement).</a>				
99.1#	<a href="#">AN2 Therapeutics, Inc. 2022 Equity Incentive Plan.</a>	10-K	001-41331	10.3	March 29, 2024
99.2#	<a href="#">Forms of Stock Option Grant Notice, Stock Option Agreement and Notice of Exercise under the AN2 Therapeutics, Inc. 2022 Equity Incentive Plan.</a>	S-1	333-263295	10.4	March 4, 2022
99.3#	<a href="#">Form of Restricted Stock Unit Grant Notice and Award Agreement under the AN2 Therapeutics, Inc. 2022 Equity Incentive Plan.</a>	10-K	001-41331	10.5	March 29, 2024
99.4#	<a href="#">AN2 Therapeutics, Inc. 2022 Employee Stock Purchase Plan.</a>	10-K	001-41331	10.6	March 29, 2024
107.1*	<a href="#">Filing Fee Table.</a>				

\* Filed herewith.

# Indicates management contract or compensatory plan.

## 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 Menlo Park, State of California, on March 29, 2024.

### AN2 THERAPEUTICS, INC.

By: /s/ Eric Easom  
Eric Easom  
President and Chief Executive Officer

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Eric Easom and Lucy O. Day, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement (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 and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, 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 has been signed below by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Eric Easom</u> <b>Eric Easom</b>	Chief Executive Officer and Director (Principal Executive Officer)	March 29, 2024
<u>/s/ Lucy O. Day</u> <b>Lucy O. Day</b>	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 29, 2024
<u>/s/ Joseph Zakrzewski</u> <b>Joseph Zakrzewski</b>	Board Chair and Director	March 29, 2024
<u>/s/ Kabeer Aziz</u> <b>Kabeer Aziz</b>	Director	March 29, 2024
<u>/s/ Maggie FitzPatrick</u> <b>Maggie FitzPatrick</b>	Director	March 29, 2024
<u>/s/ Gilbert L. Marks</u> <b>Gilbert L. Marks</b>	Director	March 29, 2024
<u>/s/ Patricia (Patty) Martin</u> <b>Patricia (Patty) Martin</b>	Director	March 29, 2024
<u>/s/ Rob Readnour</u> <b>Rob Readnour</b>	Director	March 29, 2024
<u>/s/ Melvin Spigelman</u> <b>Melvin Spigelman</b>	Director	March 29, 2024
<u>/s/ Stephanie Wong</u> <b>Stephanie Wong</b>	Director	March 29, 2024

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March 29, 2024

AN2 Therapeutics, Inc.  
1800 El Camino Real, Suite D  
Menlo Park, California 94027

Re: Registration Statement on Form S-8

To the addressee set forth above:

We have acted as special counsel to AN2 Therapeutics, Inc., a Delaware corporation (the “*Company*”), in connection with the registration by the Company of an aggregate of 1,487,071 shares of Common Stock of the Company, par value \$0.00001 per share (the “*Shares*”), issuable under the Company’s 2022 Equity Incentive Plan (the “*2022 Plan*”) and 2022 Employee Stock Purchase Plan (together with the 2022 Plan, the “*Plans*”).

The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the “*Securities Act*”), filed with the Securities and Exchange Commission (the “*Commission*”) on March 29, 2024 (the “*Registration Statement*”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related prospectus, other than as expressly stated herein with respect to the issuance of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the “*DGCL*”), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, or certificates representing the Shares have been manually signed by an authorized officer of the transfer agent and registrar therefor, and have been issued by the Company for legal consideration of not less than par value in the circumstances contemplated by the applicable Plan, assuming in each case that the individual issuances, grants or awards under the applicable Plan are duly authorized by all necessary corporate action and duly issued, granted or awarded and exercised in accordance with the requirements of law and the applicable Plan (and the agreements and awards duly adopted thereunder and in accordance therewith), the issuance and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and non-assessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Securities Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby 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 of the Commission thereunder.

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Sincerely,

/s/ Latham & Watkins LLP

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of AN2 Therapeutics, Inc. of our report dated March 29, 2024 relating to the financial statements, which appears in AN2 Therapeutics, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2023.

/s/ PricewaterhouseCoopers LLP

San Jose, California

March 29, 2024

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## CALCULATION OF FILING FEE TABLE

Form S-8

AN2 Therapeutics, Inc.

**Table 1: Newly Registered Securities**

Security Type	Security Title	Fee Calculation Rule	Amount to be Registered <sup>(1)</sup>	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.00001 par value per share, reserved for issuance pursuant to the Registrant's 2022 Equity Incentive Plan	457(c) and 457(h)	1,189,657 <sub>(2)</sub>	\$3 <sub>(4)</sub> .17	\$3,771,212.69	0.0001476	\$556.64
Equity	Common Stock, \$0.00001 par value per share, reserved for future issuance pursuant to the Registrant's 2022 Employee Stock Purchase Plan	457(c) and 457(h)	297,414 <sub>(3)</sub>	\$2 <sub>(5)</sub> .69	\$801,382.02	0.0001476	\$118.29
Total Offering Amounts					\$4,572,594.71		\$674.93
Total Fee Offsets							N/A
Net Fee Due							\$674.93

- (1) Pursuant to Rule 416(a) promulgated under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of Common Stock ("Common Stock") of AN2 Therapeutics, Inc. (the "Registrant") that become issuable under the Registrant's 2022 Equity Incentive Plan (the "2022 Plan") and the Registrant's 2022 Employee Stock Purchase Plan (the "2022 ESPP") by reason of any stock dividend, stock split, recapitalization, or other similar transaction effected without receipt of consideration that results in an increase to the number of outstanding shares of the Registrant's Common Stock, as applicable.
- (2) Represents the additional shares of Common Stock that were reserved for future issuance under the 2022 Plan on January 1, 2024, pursuant to an evergreen provision contained in the 2022 Plan. Pursuant to such provision, the number of shares reserved for issuance under the 2022 Plan will automatically increase on January 1 of each year for a period of 10 years, beginning on January 1, 2023 and ending on (and including) January 1, 2032, in an amount equal to four percent (4%) of the total number of shares of the Registrant's Common Stock outstanding on December 31 of the preceding calendar year; provided, however, that the Company's board of directors may act prior to January 1st of a given year to provide that the increase for such year will be a lesser number of shares of Common Stock.
- (3) Represents the additional shares of Common Stock that were reserved for future issuance under the 2022 ESPP on January 1, 2024, pursuant to an evergreen provision contained in the 2022 ESPP. Pursuant to such provision, the number of shares reserved for issuance under the 2022 ESPP will automatically increase on January 1 of each year for a period of 10 years, beginning on January 1, 2023 and continuing through (and including) January 1, 2032, by the lesser of (i) one percent (1%) of the total number of shares of the Registrant's Common Stock outstanding on December 31st of the preceding calendar year, and (ii) 561,000 shares of Common stock. Notwithstanding the foregoing, the Company's board of directors may act prior to January 1st of a given year to provide that there will be no January 1st increase in the share reserve for such



calendar year or that the increase in the share reserve for such calendar year will be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence.

- (4) Estimated in accordance with Rules 457(c) and 457(h) of the Securities Act solely for the purpose of calculating the registration fee. The offering price per share and the aggregate offering price are based upon \$3.17, which is the average of the high and low selling prices per share of the Registrant's Common Stock on March 26, 2024 as reported on the Nasdaq Global Select Market.
  - (5) Estimated in accordance with Rules 457(c) and 457(h) of the Securities Act solely for the purpose of calculating the registration fee. The offering price per share and the aggregate offering price are based upon \$2.69 which is the average of the high and low selling prices per share of the Registrant's Common Stock on March 26, 2024 as reported on the Nasdaq Global Select Market multiplied by 85%, which is the percentage of the price per share applicable to purchases under the 2022 ESPP.
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