UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT

Under
The Securities Act of 1933

Mineralys Therapeutics, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization) 2834 (Primary Standard Industrial Classification Code Number) 84-1966887 (I.R.S. Employer Identification Number)

150 N. Radnor Chester Road, Suite F200 Radnor, PA 19087 (888) 378-6240

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Jon Congleton Chief Executive Officer Mineralys Therapeutics, Inc. 150 N. Radnor Chester Road, Suite F200 Radnor, PA 19087 (888) 378-6240

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copies to:

Cheston J. Larson Matthew T. Bush Latham & Watkins LLP 12670 High Bluff Drive San Diego, California 92130 (858) 523-5400 Adam Levy Chief Financial Officer and Chief Business Officer Mineralys Therapeutics, Inc. 150 N. Radnor Chester Road, Suite F200 Radnor, PA 19087 (888) 378-6240

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

Ilir Mujalovic Shearman & Sterling LLP 559 Lexington Avenue New York, NY 10022 (212) 848-4000

if any of the securities being	g registered on this re	of the content of a delayed of continuous basis pursuant to Rule 413 under the securities Act of 1933 the	ck the
following box.			
If this Form is filed to regis	ter additional securiti	es for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the S	ecurities
Act registration statement numbe	r of the earlier effecti	ve registration statement for the same offering. ☑ (File No. 333-269282)	
If this Form is a post-effect	ive 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 re-	gistration statement for	or the same offering.	
		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 re			
		a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging g	
company. See the definition of "l	arge accelerated filer	""accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Excha	ınge Act.
Large accelerated filer		Accelerated filer	
	\boxtimes		
Non-accelerated filer		Smaller reporting company	\boxtimes
		Emerging growth company	\boxtimes
If an emerging growth company, accounting standards provided pu		rk if the registrant has elected not to use the extended transition period for complying with any new or revised fin $(2)(B)$ of the Securities Act. \Box	nancial
The Registration Statement sha Securities Act of 1933, as amen		upon filing with the Securities and Exchange Commission in accordance with Rule 462(b) promulgated un	der the

EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

This Registration Statement on Form S-1 (this "Registration Statement") is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, for the sole purpose of increasing the aggregate number of shares of common stock offered by Mineralys Therapeutics, Inc. (the "Registrant") by 2,300,000 shares, 300,000 of which are subject to purchase upon exercise of the underwriters' option to purchase additional shares of the Registrant's common stock. The additional securities that are being registered for sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Filing Fee Table (Exhibit 107) filed as an exhibit to the Registration Statement on Form S-1, as amended (File No. 333-269282) (the "Prior Registration Statement"). The information set forth in the Prior Registration Statement and all exhibits thereto are hereby incorporated by reference in this filing.

The required of	The required opinion and consents are listed on an Exhibit Index attached hereto and filed herewith.					

Exhibit Index

Exhibit Number	Description of Exhibit
5.1	Opinion of Latham & Watkins LLP (incorporated by reference to Exhibit 5.1 filed with the Prior Registration Statement on February 2, 2023)
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm
23.2	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on the signature page of the Prior Registration Statement filed on January 18, 2023)
107	Filing Fee Table

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Radnor, State of Pennsylvania, on this 9th day of February, 2023.

MINERALYS THERAPEUTICS, INC.

By: /s/ Jon Congleton

Jon Congleton

Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date	
/s/ Jon Congleton	Chief Executive Officer	Eshman, 0, 2022	
Jon Congleton	(principal executive officer)	February 9, 2023	
/s/ Adam Levy	Chief Financial Officer	F-10 2022	
Adam Levy	(principal financial and accounting officer)	February 9, 2023	
*	Francisco Chairman	F.1 0.2022	
Brian Taylor Slingsby, M.D., Ph.D., M.P.H.	Executive Chairman	February 9, 2023	
*	Director	F-h0 2022	
Srinivas Akkaraju, M.D., Ph.D.	Director	February 9, 2023	
*	—— Director	F.1 0.2022	
Alexander Asam, Ph.D.	Director	February 9, 2023	
*	Director	F-h0 2022	
Derek DiRocco, Ph.D.	Director	February 9, 2023	
*	Director	F.1. 0.2022	
Olivier Litzka, Ph.D.	Director	February 9, 2023	
*	Director	F.1 0.2022	
Takeshi Takahashi, M.B.A.	Director	February 9, 2023	
*By: /s/ Jon Congleton			
Jon Congleton			
Attorney-in-fact			

Calculation of Filing Fee Table

Form S-1

Mineralys Therapeutics, Inc.

Table 1 - Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾⁽²⁾	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price ⁽³⁾	Fee Rate	Amount of Registration Fee
Equity	Common Stock, par value \$0.0001 per share	Rule 457(a)	2,300,000	\$16.00	\$36,800,000	0.00011020	\$4,056
	Total Offering Amounts				\$36,800,000	0.00011020	\$4,056
	Total Fees Previously Paid				_	_	_
Total Fees Offsets				_	_	_	_
Net Fee Due			_	_	_	\$4,056	

⁽¹⁾ The registrant previously registered securities with a proposed maximum aggregate offering price not to exceed \$184,000,000 on a Registration Statement on Form S-1 (File No. 333-269282), which was declared effective by the Securities and Exchange Commission on February 9, 2023. In accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended, an additional amount of securities having a proposed maximum aggregate offering price of \$36,800,000 is hereby registered, which includes the shares of common stock that the underwriters have the option to purchase.

[2] Includes 300,000 shares of common stock that the underwriters have the option to purchase.

[3] Estimated solely for purposes of computing the amount of the registration fee pursuant to Rule 457(a) under the Securities Act of 1933, as amended.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-1 MEF) filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption "Experts" and to the incorporation by reference of our report dated October 12, 2022 (except for Note 1, as to which the date is February 2, 2023), with respect to the financial statements of Mineralys Therapeutics, Inc. included in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-269282) and related prospectus of Mineralys Therapeutics, Inc. for the registration of its common stock.

/s/Ernst & Young LLP

Denver, Colorado February 9, 2023