UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No.)*

NEUROGENE INC.

(Name of Issuer)

Common Stock, par value \$0.000001 per share

(Title of Class of Securities)

64135M105

(CUSIP Number)

December 18, 2023

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

□ Rule 13d-1(b) ⊠ Rule 13d-1(c) □ Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

1	NAME OF REPORTING PERSONS					
	Great Point Partners, LLC					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) □ (b) □					
3	SEC USE ONLY					
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware					
		5	SOLE VOTING POWER 0			
S BEN OV	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		SHARED VOTING POWER 969,229			
RE			SOLE DISPOSITIVE POWER 0			
			SHARED DISPOSITIVE POWER 969,229			
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 969,229					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 7.56% ¹					
12	TYPE OF REPORTING PERSON IA/OO					

¹ Based on 12,823,696 shares of Common Stock outstanding as of December 18, 2023 after giving effect to the one-for-four reverse stock split that was effected on December 18, 2023 and the Merger as reported in Issuer's Form 8-K filed with the Securities and Exchange Commission ("SEC") on December 19, 2023.

1	NAME OF REPORTING PERSONS						
	Dr. Jeffrey R. Jay, M.D.						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) □ (b) □						
3	SEC USE ONLY						
4	CITIZENSHIP OR PLACE OF ORGANIZATION						
	USA						
	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		5 SOLE VOTING POWER				
SBEN			SHARED VOTING POWER 969,229				
RE			SOLE DISPOSITIVE POWER 0				
			SHARED DISPOSITIVE POWER 969,229				
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON						
9	969,229						
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES						
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)						
11	7.56% ¹						
10	TYPE OF REPORTING PERSON						
12	IN/HC						

¹ Based on 12,823,696 shares of Common Stock outstanding as of December 18, 2023 after giving effect to the one-for-four reverse stock split that was effected on December 18, 2023 and the Merger as reported in Issuer's Form 8-K filed with the Securities and Exchange Commission ("SEC") on December 19, 2023.

1	NAME OF REPORTING PERSONS						
	Mr. Ortav Yehudai						
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) □ (b) □						
3	SEC USE ONLY						
4	CITIZENSHIP OR PLACE OF ORGANIZATION USA						
		5	SOLE VOTING POWER 0				
S BEN	NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		SHARED VOTING POWER 969,229				
RE			SOLE DISPOSITIVE POWER 0				
			SHARED DISPOSITIVE POWER 969,229				
0	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON						
9	969,229						
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES						
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 7.56% ¹						
	TYPE OF REPORTING PERSON						
12	IN/HC						

¹ Based on 12,823,696 shares of Common Stock outstanding as of December 18, 2023 after giving effect to the one-for-four reverse stock split that was effected on December 18, 2023 and the Merger as reported in Issuer's Form 8-K filed with the Securities and Exchange Commission ("SEC") on December 19, 2023.

Item 1. (a) Name of Issuer

NEUROGENE INC.

Item 1. (b) Address of Issuer's Principal Executive Offices

Neoleukin Therapeutics, Inc. 188 East Blaine Street, Suite 450 Seattle, Washington 98102

Item 2. (a) Names of Persons Filing:

Great Point Partners, LLC Dr. Jeffrey R. Jay, M.D. Mr. Ortav Yehudai

The Reporting Persons have entered into a Joint Filing Agreement, dated Decmber 27, 2023, a copy of which is filed with this SCHEDULE 13G as Exhibit A, pursuant to which the Reporting Persons have agreed to file this statement jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act.

Item 2. (b) Address of Principal Business Office:

The address of the principal business office of each of the Reporting Persons is

165 Mason Street, 3rd Floor Greenwich, CT 06830

Item 2. (c) Citizenship:

Great Point Partners, LLC is a limited liability company organized under the laws of the State of Delaware. Dr. Jeffrey R. Jay, M.D. is a citizen of the United States. Mr. Ortav Yehudai is a citizen of the United States.

Item 2. (d) Title of Class of Securities

Common Stock, par value \$0.000001 per share (the "common stock")

Item 2. (e) CUSIP No.:

64135M105

CUSIP No. 64135M105

SCHEDULE 13G

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Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

- (a) \square Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) \square Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) \Box Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) 🗆 Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e) \Box An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) \Box An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) \Box A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j) \Box A non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J);
- (k) A group, in accordance with §240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution:

CUSIP No. 64135M105

The information required by Items 4(a) - (c) is set forth in Rows (5) - (11) of the cover pages for the Reporting Persons and is incorporated herein by reference.

The percentage set forth in Row (11) of the cover pages for the Reporting Persons are based on 12,823,696 shares of Common Stock outstanding as of December 18, 2023 after giving effect to the one-for-four reverse stock split that was effected on December 18, 2023 and the Merger as reported in Issuer's Form 8-K filed with the Securities and Exchange Commission ("SEC") on December 19, 2023.

Biomedical Value Fund, L.P. ("BVF") is the record holder of 550,522 shares of Common Stock (the "BVF Shares"). Such shares constitute 4.29% of the shares of Common Stock outstanding, computed in accordance with Rule 13d-3. Each of Dr. Jeffrey R. Jay, M.D. ("Dr. Jay"), as Senior Managing Member of Great Point, and Mr. Ortav Yehudai ("Mr. Yehudai"), as Managing Director of Great Point, has voting and investment power with respect to the BVF Shares, and therefore may be deemed to be the beneficial owner of the BVF Shares.

Biomedical Offshore Value Fund, Ltd. ("BOVF") is the record holder of 352,800 shares of Common Stock (the "BOVF Shares"). Such shares constitute 2.75% of the shares of Common Stock outstanding, computed in accordance with Rule 13d-3. Each of Dr. Jeffrey R. Jay, M.D. ("Dr. Jay"), as Senior Managing Member of Great Point, and Mr. Ortav Yehudai ("Mr. Yehudai"), as Managing Director of Great Point, has voting and investment power with respect to the BOVF Shares, and therefore may be deemed to be the beneficial owner of the BOVF Shares.

Cheyne Global Equity Fund (an Open-Ended Fund of Cheyne Select Master Fund ICAV) ("CGEF") is the record holder of 65,907 shares of Common Stock (the "CGEF Shares"). Such shares constitute 0.51% of the shares of Common Stock outstanding, computed in accordance with Rule 13d-3. Each of Dr. Jeffrey R. Jay, M.D. ("Dr. Jay"), as Senior Managing Member of Great Point, and Mr. Ortav Yehudai ("Mr. Yehudai"), as Managing Director of Great Point, has voting and investment power with respect to the CGEF Shares, and therefore may be deemed to be the beneficial owner of the CGEF Shares.

Notwithstanding the above, Great Point, Dr. Jay and Mr. Yehudai disclaim beneficial ownership of the BVF Shares, the BOVF Shares, and the CGEF Shares, except to the extent of their respective pecuniary interests.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

1. Great Point Partners, LLC

- (a) Amount beneficially owned: 969,229
- (b) Percent of class: 7.56%
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or direct the vote: 0
 - (ii) Shared power to vote or direct the vote: 969,229
 - (iii) Sole power to dispose or to direct the disposition of: 0
 - (iv) Shared power to dispose or to direct the disposition of: 969,229

2. Dr. Jeffrey R. Jay, M.D.

- (a) Amount beneficially owned: 969,229
- (b) Percent of class: 7.56%
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or direct the vote: 0
 - (ii) Shared power to vote or direct the vote: 969,229
 - (iii) Sole power to dispose or to direct the disposition of: 0
 - (iv) Shared power to dispose or to direct the disposition of: 969,229

3. Mr. Ortav Yehudai

- (a) Amount beneficially owned: 969,229
- (b) Percent of class: 7.56%
- (c) Number of shares as to which the person has:
 - (i) Sole power to vote or direct the vote: 0
 - (ii) Shared power to vote or direct the vote: 969,229
 - (iii) Sole power to dispose or to direct the disposition of: 0
 - (iv) Shared power to dispose or to direct the disposition of: 969,229

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following [].

- Item 6. Ownership of More Than Five Percent on Behalf of Another Person See Item 4.
- Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company or Control Person
 - Not Applicable.
 - Item 8. Identification and Classification of Members of the Group Not Applicable.

Item 9. Notice of Dissolution of Group

Not Applicable.

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: December 27, 2023

Great Point Partners, LLC

By: /s/ Dr. Jeffrey R. Jay, M.D. Dr. Jeffrey R. Jay, M.D., as Senior Managing Member

Dr. Jeffrey R. Jay, M.D.

By: /s/ Dr. Jeffrey R. Jay, M.D. Dr. Jeffrey R. Jay, M.D.

Mr. Ortav Yehudai

By: /s/ Mr. Ortav Yehudai

Mr. Ortav Yehudai

JOINT FILING STATEMENT

PURSUANT TO RULE 13d-1(k)

The undersigned hereby agree as follows:

(i) Each of them is individually eligible to use the SCHEDULE 13G to which this Exhibit is attached, and such SCHEDULE 13G is filed on behalf of each of them; and

(ii) Each of them is responsible for the timely filing of such SCHEDULE 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein; but none of them is responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

Dated: December 27, 2023

Great Point Partners, LLC

By: /s/ Dr. Jeffrey R. Jay, M.D. Dr. Jeffrey R. Jay, M.D., as Senior Managing Member

Dr. Jeffrey R. Jay, M.D.

By: /s/ Dr. Jeffrey R. Jay, M.D. Dr. Jeffrey R. Jay, M.D.

Mr. Ortav Yehudai

By: /s/ Mr. Ortav Yehudai Mr. Ortav Yehudai