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, \$0.000001 par value (Title of Class of Securities)

64135M105

(CUSIP Number)

November 4, 2024

(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)

[X] 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).

| CUSIP No | <u>64135M105</u> | |
|-----------|---|--------------------|
| 1. | NAME OF REPORTING PERSONS | |
| | Casdin Capital, LLC | |
| 2. | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) | (a) [_] (b) [_] |
| 3. | SEC USE ONLY | |
| 4. | CITIZENSHIP OR PLACE OF ORGANIZATION | |
| | Delaware | |
| NUMBER OF | F SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | |
| 5. | SOLE VOTING POWER | |
| | 0 | |
| 6. | SHARED VOTING POWER | |
| | 1,024,616 | |
| 7. | SOLE DISPOSITIVE POWER | |
| | 0 | |
| 8. | SHARED DISPOSITIVE POWER | |
| | 1,024,616 | |
| 9. | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | |
| | 1,024,616 | |
| 10. | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | [] |
| 11. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) | |
| | 6.9% | |
| 12. | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) | |
| | ΙΑ | |

| CUSIP No | 64135M105 | |
|-----------|---|--------------------|
| 1. | NAME OF REPORTING PERSONS | |
| | Casdin Partners Master Fund, L.P. | |
| 2. | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) | (a) [_] (b) [_] |
| 3. | SEC USE ONLY | |
| 4. | CITIZENSHIP OR PLACE OF ORGANIZATION | |
| | Cayman Islands | |
| NUMBER OF | SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | |
| 5. | SOLE VOTING POWER | |
| | 0 | |
| 6. | SHARED VOTING POWER | |
| | 804,255 | |
| 7. | SOLE DISPOSITIVE POWER | |
| | 0 | |
| 8. | SHARED DISPOSITIVE POWER | |
| | 804,255 | |
| 9. | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | |
| | 804,255 | |
| 10. | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | [] |
| 11. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) | |
| | 5.4% | |
| 12. | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN | |

| CUSIP No | 64135M105 | |
|-----------|---|---------|
| | | |
| 1. | NAME OF REPORTING PERSONS | |
| | Casdin Partners GP, LLC | |
| 2. | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) | (a) [_] |
| | | (b) |
| 3. | SEC USE ONLY | |
| | | |
| 4. | CITIZENSHIP OR PLACE OF ORGANIZATION | |
| | Delaware | |
| NUMBER OF | SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | |
| 5. | SOLE VOTING POWER | |
| | 0 | |
| 6. | SHARED VOTING POWER | |
| | 804,255 | |
| 7. | SOLE DISPOSITIVE POWER | |
| | 0 | |
| 8. | SHARED DISPOSITIVE POWER | |
| | 804,255 | |
| 9. | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | |
| | 804,255 | |
| 10. | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE | |
| | INSTRUCTIONS) | [_] |
| 11. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) | |
| | 5.4% | |
| 12. | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) OO | |

| CUSIP No | 64135M105 | |
|-----------|---|--------------------|
| 1. | NAME OF REPORTING PERSONS | |
| | Eli Casdin | |
| 2. | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) | (a) [_] (b) [_] |
| 3. | SEC USE ONLY | |
| 4. | CITIZENSHIP OR PLACE OF ORGANIZATION | |
| | United States of America | |
| NUMBER OF | SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | |
| 5. | SOLE VOTING POWER | |
| | 0 | |
| 6. | SHARED VOTING POWER | |
| | 1,024,616 | |
| 7. | SOLE DISPOSITIVE POWER | |
| | 0 | |
| 8. | SHARED DISPOSITIVE POWER | |
| | 1,024,616 | |
| 9. | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | |
| | 1,024,616 | |
| 10. | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) | [] |
| 11. | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) | |
| | 6.9% | |
| 12. | TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN, HC | |

| CUSIP No | (| 54135M105 |
|----------|------|--|
| Item 1. | (a). | Name of Issuer: |
| | | Neurogene Inc. |
| | (b). | Address of Issuer's Principal Executive Offices: |
| | | 535 W 24 th Street, 5 th Floor |
| | | New York, New York 10011 |
| Item 2. | (a). | Name of Person Filing: |
| | | Casdin Capital, LLC |
| | | Casdin Partners Master Fund, L.P. Casdin Partners GP, LLC |
| | | Eli Casdin |
| | (b). | Address of Principal Business Office, or if None, Residence: |
| | | Casdin Capital, LLC |
| | | 1350 Avenue of the Americas, Suite 2600 |
| | | New York, New York 10019 |
| | | Casdin Partners Master Fund, L.P. |
| | | 1350 Avenue of the Americas, Suite 2600 |
| | | New York, New York 10019 |
| | | Casdin Partners GP, LLC |
| | | 1350 Avenue of the Americas, Suite 2600 |
| | | New York, New York 10019 |
| | | Eli Casdin |
| | | 1350 Avenue of the Americas, Suite 2600 |
| | | New York, New York 10019 |
| | (c). | Citizenship: |
| | | |
| | | Casdin Capital, LLC - Delaware Casdin Partners Master Fund, L.P. – Cayman Islands |
| | | Casdin Partners GP, LLC - Delaware |
| | | Eli Casdin– United States of America |
| | (d). | Title of Class of Securities: |
| | | Common Stock, \$0.000001 par value |
| | (e). | CUSIP Number: |
| | | 64135M105 |
| | | |

Item 3.

Item 4.

(i)

| (a) | [_] B | roker or dealer registered under Section 15 of the Exchange Act (15 U.S.C. 7 | '8c). | |
|---------------|------------------|---|---|--|
| (b) | [_] Ba | ank as defined in Section 3(a)(6) of the Exchange Act (15 U.S.C. 78c). | | |
| (c) | [_] In | surance company as defined in Section 3(a)(19) of the Exchange Act (15 U.S | S.C. 78c). | |
| (d) | [_] In | vestment company registered under Section 8 of the Investment Company A | ct of 1940 (15 U.S.C. 80a-8). | |
| (e) | [_] A | An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E); | | |
| (f) | [_] A | n employee benefit plan or endowment fund in accordance with § 240.13d-1 | (b)(1)(ii)(F); | |
| (g) | [_] A | parent holding company or control person in accordance with Rule 13d-1(b) | (1)(ii)(G); | |
| (h) | [_] A | savings association as defined in Section 3(b) of the Federal Deposit Insurar | nce Act (12 U.S.C.1813); | |
| (i) | | church plan that is excluded from the definition of an investment company u vestment Company Act of 1940 (15 U.S.C. 80a-3); | under Section $3(c)(14)$ of the | |
| (j) | [_] G | roup, in accordance with s.240.13d-1(b)(1)(ii)(J). | | |
| Owne | ership. | | | |
| Provi Item | | ng information regarding the aggregate number and percentage of the class of | of securities of the issuer identified in | |
| (a) | Amou | nt beneficially owned: | | |
| | 804,25 804,25 | 516 shares deemed beneficially owned by Casdin Capital, LLC 5 shares deemed beneficially owned by Casdin Partners Master Fund, L.P. 5 shares deemed beneficially owned by Casdin Partners GP, LLC 516 shares deemed beneficially owned by Eli Casdin | | |
| (b) | Percen | t of class: | | |
| | 5.4% c 5.4% c | leemed beneficially owned by Casdin Capital, LLC leemed beneficially owned by Casdin Partners Master Fund, L.P. leemed beneficially owned by Casdin Partners GP, LLC leemed beneficially owned by Eli Casdin | | |
| (c) | Numbe | er of shares as to which Casdin Capital, LLC has: | | |
| | (i) | Sole power to vote or to direct the vote | 0 | |
| | (ii) | Shared power to vote or to direct the vote | 1,024,616 | |
| | (iii) | Sole power to dispose or to direct the disposition of | 0 | |
| | (iv) | Shared power to dispose or to direct the disposition of | 1,024,616 | |
| | Numbe | er of shares as to which Casdin Partners Master Fund, L.P. has: | | |
| | (i) | Sole power to vote or to direct the vote | 0 | |
| | (ii) | Shared power to vote or to direct the vote | 804,255 | |
| | (iii) | Sole power to dispose or to direct the disposition of | 0 | |
| | (iv) | Shared power to dispose or to direct the disposition of | 804,255 | |
| | Numbe | er of shares as to which Casdin Partners GP, LLC has: | | |
| | | Solo norman to visto on to direct the susta | 0 | |

(ii) Shared power to vote or to direct the vote 804,255

0

Sole power to vote or to direct the vote

| | (iii | ii) | Sole power to dispose or to direct the disposition of | 0 |
|---------|--|--|---|---|
| | (iv | v) | Shared power to dispose or to direct the disposition of | 804,255 |
| | Nı | umber of | shares as to which Eli Casdin has: | |
| | (i) |) | Sole power to vote or to direct the vote | 0 |
| | (ii | i) | Shared power to vote or to direct the vote | 1,024,616 |
| | (ii | ii) | Sole power to dispose or to direct the disposition of | 0 |
| | (iv | v) | Shared power to dispose or to direct the disposition of | 1,024,616 |
| Item 5. | If this statemer | nt is being | ent or Less of a Class. g filed to report the fact that as of the date hereof the reporting person has nt of the class of securities, check the following []. | ceased to be the beneficial owner |
| Item 6. | If any other pe the sale of, suc than five perce | erson is kn ch securiti ent of the | In Five Percent on Behalf of Another Person. Hown to have the right to receive or the power to direct the receipt of divid es, a statement to that effect should be included in response to this item a class, such person should be identified. A listing of the shareholders of a pompany Act of 1940 or the beneficiaries of employee benefit plan, pensio | nd, if such interest relates to more n investment company registered |

N/A

| Item 7. | Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company. |
|----------|---|
| | If a parent holding company has filed this schedule, pursuant to Rule $13d-1(b)(1)(ii)(G)$, so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company has filed this schedule pursuant to Rule $13d-1(c)$ or Rule $13d-1(d)$, attach an exhibit stating the identification of the relevant subsidiary. |
| | N/A |
| Item 8. | Identification and Classification of Members of the Group. |
| | If a group has filed this schedule pursuant to $240.13d-1(b)(1)(ii)(J)$, so indicate under Item 3(j) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to $240.13d-1(c)$ or $240.13d-1(d)$, attach an exhibit stating the identity of each member of the group. |
| | N/A |
| Item 9. | Notice of Dissolution of Group. |
| | Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity. See Item 5. |
| | N/A |
| 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, other than activities solely in connection with a nomination under § 240.14a-11. |

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.

| November 8, 2024 |
|--|
| (Date) |
| |
| Casdin Capital, LLC* |
| By: /s/ Eli Casdin |
| (Signature) |
| Eli Casdin, Managing Member |
| (Name/Title) |
| Casdin Partners Master Fund, L.P.* By: Casdin Partners GP, LLC, its general partner |
| By: /s/ Eli Casdin |
| (Signature) |
| Eli Casdin, Managing Member |
| (Name/Title) |
| Casdin Partners GP, LLC* |
| By: /s/ Eli Casdin |
| (Signature) |
| Eli Casdin, Managing Member |
| (Name/Title) |
| |
| /s/ Eli Casdin* |
| Eli Casdin |

* The Reporting Persons disclaim beneficial ownership in the Shares reported herein except to the extent of their pecuniary interest therein.

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative other than an executive officer or general partner of the filing person, evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

Note. Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See s.240.13d-7 for other parties for whom copies are to be sent.

Attention. Intentional misstatements or omissions of fact constitute Federal criminal violations (see 18 U.S.C. 1001).

AGREEMENT

The undersigned agree that this Schedule 13G dated November 8, 2024 relating to the Common Stock, \$0.000001 par value of Neurogene Inc., shall be filed on behalf of the undersigned.

Casdin Capital, LLC

By: /s/ Eli Casdin

(Signature)

Eli Casdin, Managing Member

(Name/Title)

Casdin Partners Master Fund, L.P. By: Casdin Partners GP, LLC, its general partner

By: /s/ Eli Casdin

Eli Casdin, Managing Member

(Name/Title)

(Signature)

Casdin Partners GP, LLC

By: /s/ Eli Casdin

(Signature)

Eli Casdin, Managing Member

(Name/Title)

/s/ Eli Casdin Eli Casdin