

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

Neurogene Inc.

(Name of Issuer)

Common

(Title of Class of Securities)

(CUSIP Number)

09/30/2026

(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)

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CUSIP No.

Names of Reporting Persons

1PRUDENTIAL FINANCIAL INC

Check the appropriate box if a member of a Group (see instructions)

2☐ (a)
☐ (b)

3Sec Use Only

Citizenship or Place of Organization

4NEW JERSEY

Number of
Shares
Beneficially

Sole Voting Power

50.00

Owned by Each Reporting Person With:	6	Shared Voting Power
	1,791,746.00	
		Sole Dispositive Power
	7	
	0.00	
		Shared Dispositive Power
	8	
	2,231,357.00	
	Aggregate Amount Beneficially Owned by Each Reporting Person	
9	2,231,357.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)	
	☐	
	Percent of class represented by amount in row (9)	
11	11.2 %	
12	Type of Reporting Person (See Instructions)	
	HC	

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Item 1.

- (a) Name of issuer:
Neurogene Inc.
- (b) Address of issuer's principal executive offices:
535 W 24TH STREET, 5TH FLOOR, NEW YORK, NEW YORK, 10011.

Item 2.

- (a) Name of person filing:
Prudential Financial, Inc.
- (b) Address or principal business office or, if none, residence:
751 Broad Street Newark, New Jersey 07102-3777
- (c) Citizenship:
New Jersey
- (d) Title of class of securities:
Common
- (e) CUSIP No.:
- 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) ☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) ☐ 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) ☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);
- (f) ☐ An 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 § 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) ☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in

accordance with § 240.13d-1(b)(1)(ii)(J),
please specify the type of institution:

- (k) ☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

- (a) 2,231,357
- Percent of class:
- (b) 11.2 %
- (c) Number of shares as to which the person has:
- (i) Sole power to vote or to direct the vote:
- 0
- (ii) Shared power to vote or to direct the vote:
- 1,791,746
- (iii) Sole power to dispose or to direct the disposition of:
- 0
- (iv) Shared power to dispose or to direct the disposition of:
- 2,231,357

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

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than 5 percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

Our clients may have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities which are the subject of this filing.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

If a parent holding company has filed this schedule, pursuant to Rule 13d-1(b)(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.

Prudential Financial, Inc. is a Parent Holding Company and the indirect parent of the following subsidiaries, who are the beneficial owners of the number and percentage of securities which are the subject of this filing as set forth next to their names: Subsidiaries Number of shares Percentage Jennison IA 2,229,082 11.15 PGIM Quantitative Solutions LLC IA 2,275 0.05

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and 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.

PRUDENTIAL FINANCIAL INC

Signature: /s/ Richard Baker

Name/Title: Second Vice President

Date: 10/07/2026