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

## SCHEDULE 13G\* (Rule 13d-102)

#### INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 240.13d-1(b), (c), AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO § 240.13d-2 (Amendment No. 1)\*

Vigil Neuroscience, Inc. (Name of Issuer)

Common Stock, par value \$0.0001 per share (the "Shares")

(Title of Class of Securities)

92673K108

(CUSIP Number)

December 31, 2022

(Date of Event Which Requires Filing of the Statement)

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

 $\square \qquad \text{Rule 13d-1(b)}$ 

 $\boxtimes$  Rule 13d-1(c)

 $\square \qquad \text{Rule 13d-1(d)}$ 

\* 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).

1.	NAME OF RE	PORTING I	PERSONS							
	Citadel Advis	Citadel Advisors LLC								
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP			(a)						
				(a) (b)						
3.	SEC USE ONI	SEC USE ONLY								
4.	CITIZENSHIP	E OF ORGANIZATION								
	Delaware									
		5.	SOLE VOTING POWER							
NILIN	ADED OF		0							
SF	IBER OF IARES	6.	SHARED VOTING POWER							
OW	FICIALLY NED BY		2,161,796 Shares							
	EACH ORTING	7.	SOLE DISPOSITIVE POWER							
	ERSON WITH		0							
	W1111	8.	SHARED DISPOSITIVE POWER							
			See Row 6 above							
9.	AGGREGATE	AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON							
	See Row 6 abo	ove								
10.	10. CHECK IF THE AGGR		GATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES							
11.	PERCENT OF	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)								
	6.1% <sup>1</sup>									
12.	TYPE OF REF	PORTING P	ERSON							
	IA; OO; HC									

The percentages reported in this Schedule 13G are based upon 35,581,091 Shares outstanding as of October 31, 2022 (according to the issuer's Form 10-Q as filed with the Securities and Exchange Commission on November 10, 2022).

CUSIP No	. 92673K108
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1.	NAME OF REPORTING PERSONS								
	Citadel Advis	Citadel Advisors Holdings LP							
2.	CHECK THE	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP							
				(a) (b)					
3.	SEC USE ONLY								
4.	CITIZENSHIP	C OF ORGANIZATION							
	Delaware								
		5.	SOLE VOTING POWER						
			0						
SH	BER OF ARES	6.	SHARED VOTING POWER						
	FICIALLY NED BY		2,161,796 Shares						
	ACH DRTING	7.	SOLE DISPOSITIVE POWER						
PE	RSON /ITH		0						
v	/11П	8.	SHARED DISPOSITIVE POWER						
			See Row 6 above						
9.	AGGREGATE	AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON						
	See Row 6 abo	ove							
10.	CHECK IF TH	IE AGGREC	GATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES		_				
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)									
	6.1%								
12.	TYPE OF REF	ORTING PI	ERSON						
РN; НС									

1.	NAME OF RE	EPORTING F	PERSONS				
	Citadel GP L						
2.	CHECK THE	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP					
				(a) (b)			
3.	SEC USE ON	SEC USE ONLY					
4.	CITIZENSHI	P OR PLACE	E OF ORGANIZATION				
	Delaware						
		5.	SOLE VOTING POWER				
NILIN	IBER OF		0				
SF	IARES	6.	SHARED VOTING POWER				
OW	FICIALLY NED BY		2,161,796 Shares				
	EACH ORTING	7.	SOLE DISPOSITIVE POWER				
	ERSON WITH		0				
		8.	SHARED DISPOSITIVE POWER				
			See Row 6 above				
9.	AGGREGATE	E AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	See Row 6 ab	ove					
10.	CHECK IF TH	GATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES					
11.	PERCENT OF	PRESENTED BY AMOUNT IN ROW (9)					
	6.1%						
12.	12. TYPE OF REPORTING PERSON						
<b>OO; HC</b>							

1.	NAME OF RE	PORTING I	PERSONS					
	Citadel Securi	ities LLC						
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP							
				(a) (b)				
3.	SEC USE ONLY							
4.	CITIZENSHIP	OR PLACE	E OF ORGANIZATION					
	Delaware							
		5.	SOLE VOTING POWER					
NUIN	ADED OF		0					
SI	ABER OF HARES	6.	SHARED VOTING POWER					
	EFICIALLY NED BY		2,120 Shares					
	EACH PORTING	7.	SOLE DISPOSITIVE POWER					
	ERSON WITH		0					
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	8.	SHARED DISPOSITIVE POWER					
			See Row 6 above					
9.	AGGREGATE	AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON					
	See Row 6 abo	ove						
10.	10. CHECK IF THE AGGREGATE AMOUNT IN ROW		GATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES					
11.	11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)							
	0.0%							
12.	TYPE OF REP	ORTING PI	ERSON					
	BD; OO	BD; OO						

1.	NAME OF RE	PORTING F	PERSONS			
	Citadel Secur	ities Group	LP			
2.	CHECK THE	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP				
				(b)		
3.	SEC USE ONI	SEC USE ONLY				
4.	CITIZENSHIP	OR PLACE	E OF ORGANIZATION			
	Delaware					
	·	5.	SOLE VOTING POWER			
NII IN	MBER OF		0			
SI	HARES	6.	SHARED VOTING POWER			
	EFICIALLY NED BY		2,120 Shares			
	EACH PORTING	7.	SOLE DISPOSITIVE POWER			
	ERSON WITH		0			
		8.	SHARED DISPOSITIVE POWER			
			See Row 6 above			
9.	AGGREGATE	E AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	See Row 6 abo	ove				
10.	10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES					
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			PRESENTED BY AMOUNT IN ROW (9)			
	0.0%					
12.	TYPE OF REF	PORTING PI	ERSON			
	PN; HC					

1.	NAME OF REPORTING PERSONS								
	Citadel Secur	Citadel Securities GP LLC							
2.	CHECK THE	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP							
				(a) (b)					
3.	SEC USE ON	SEC USE ONLY							
4.	CITIZENSHIP OR PLACE OF ORGANIZATION		C OF ORGANIZATION						
	Delaware								
	·	5.	SOLE VOTING POWER						
200			0						
SE	1BER OF IARES	6.	SHARED VOTING POWER						
	FICIALLY NED BY		2,120 Shares						
	EACH ORTING	7.	SOLE DISPOSITIVE POWER						
PE	ERSON		0						
Ň	WITH	8.	SHARED DISPOSITIVE POWER						
			See Row 6 above						
9.	AGGREGATE	E AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON						
	See Row 6 ab	ove							
10.	CHECK IF TH	HE AGGREC	ATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES						
11.	PERCENT OF	F CLASS RE	PRESENTED BY AMOUNT IN ROW (9)						
	0.0%								
12.	TYPE OF REI	PORTING PI	ERSON						
	OO; HC								

1.	NAME OF RE	PORTING F	PERSONS						
	Kenneth Griff	fin							
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP								
3.	SEC USE ONI	SEC USE ONLY							
4.	4. CITIZENSHIP OR PLACE OF ORGANIZATION		E OF ORGANIZATION						
	U.S. Citizen								
		5.	SOLE VOTING POWER						
			0						
SI	ABER OF HARES	6.	SHARED VOTING POWER						
	FICIALLY NED BY		2,163,916 Shares						
	EACH PORTING	7.	SOLE DISPOSITIVE POWER						
	ERSON WITH		0						
		8.	SHARED DISPOSITIVE POWER						
			See Row 6 above						
9.	AGGREGATE	AMOUNT	BENEFICIALLY OWNED BY EACH REPORTING PERSON						
	See Row 6 abo	ove							
10.	10. CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES								
11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)		PRESENTED BY AMOUNT IN ROW (9)							
	6.1%								
12.	TYPE OF REP	PORTING PI	ERSON						
	IN; HC	IN; HC							

#### Item 1(a). Name of Issuer:

Vigil Neuroscience, Inc.

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

1 Broadway, 7th Floor, Suite 07-300, Cambridge, MA 02142 United States

#### Item 2(a). Name of Person Filing:

This Schedule 13G is being jointly filed by Citadel Advisors LLC ("Citadel Advisors"), Citadel Advisors Holdings LP ("CAH"), Citadel GP LLC ("CGP"), Citadel Securities LLC ("Citadel Securities"), Citadel Securities Group LP ("CALC4"), Citadel Securities GP LLC ("CSGP") and Mr. Kenneth Griffin (collectively with Citadel Advisors, CAH, CGP, Citadel Securities, CALC4 and CSGP, the "Reporting Persons") with respect to the Shares of the above-named issuer owned by Citadel Multi-Strategy Equities Master Fund Ltd., a Cayman Islands company ("CM"), and Citadel Securities. Such owned Shares may include other instruments exercisable for or convertible into Shares.

Citadel Advisors is the portfolio manager for CM. CAH is the sole member of Citadel Advisors. CGP is the general partner of CAH. CALC4 is the non-member manager of Citadel Securities. CSGP is the general partner of CALC4. Mr. Griffin is the President and Chief Executive Officer of CGP, and owns a controlling interest in CGP and CSGP.

The filing of this statement shall not be construed as an admission that any of the Reporting Persons is the beneficial owner of any securities covered by the statement other than the securities actually owned by such person (if any).

### Item 2(b). Address or Principal Business Office or, if none, Residence:

The address of each of the Reporting Persons is Southeast Financial Center, 200 S. Biscayne Blvd., Suite 3300, Miami, Florida 33131.

#### Item 2(c). Citizenship:

Each of Citadel Advisors, CGP, Citadel Securities and CSGP is organized as a limited liability company under the laws of the State of Delaware. Each of CALC4 and CAH is organized as a limited partnership under the laws of the State of Delaware. Mr. Griffin is a U.S. citizen.

### Item 2(d). Title of Class of Securities:

Common Stock, par value \$0.0001 per share

#### Item 2(e). CUSIP Number:

92673K108

CUSIP No. 92673K108	CUSIP	No.	9267	3K1	08
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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. 780);
- (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)  $\Box$  A savings association 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 (15 U.S.C. 80a-3);
- (j)  $\Box$  A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J);
- (k)  $\Box$  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: \_\_\_\_\_\_.

# Item 4. Ownership:

- A. Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC
  - (a) Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC may be deemed to beneficially own 2,161,796 Shares.
  - (b) The number of Shares that each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC may be deemed to beneficially own constitutes 6.1% of the Shares outstanding.
  - (c) Number of Shares as to which such person has:
    - (i) sole power to vote or to direct the vote: 0
    - (ii) shared power to vote or to direct the vote: 2,161,796
    - (iii) sole power to dispose or to direct the disposition of: 0
    - (iv) shared power to dispose or to direct the disposition of: 2,161,796

- B. Citadel Securities LLC
  - (a) Citadel Securities LLC may be deemed to beneficially own 2,120 Shares.
  - (b) The number of Shares that Citadel Securities LLC may be deemed to beneficially own constitutes 0.0% of the Shares outstanding.
  - (c) Number of shares of Shares as to which such person has:
    - (i) sole power to vote or to direct the vote: 0
    - (ii) shared power to vote or to direct the vote: 2,120
    - (iii) sole power to dispose or to direct the disposition of: 0
    - (iv) shared power to dispose or to direct the disposition of: 2,120
- C. Citadel Securities Group LP and Citadel Securities GP LLC
  - (a) Each of Citadel Securities Group LP and Citadel Securities GP LLC may be deemed to beneficially own 2,120 Shares.
  - (b) The number of Shares that each of Citadel Securities Group LP and Citadel Securities GP LLC may be deemed to beneficially own constitutes 0.0% of the Shares outstanding.
  - (c) Number of Shares as to which such person has:
    - (i) sole power to vote or to direct the vote: 0
    - (ii) shared power to vote or to direct the vote: 2,120
    - (iii) sole power to dispose or to direct the disposition of: 0
    - (iv) shared power to dispose or to direct the disposition of: 2,120

D.	Kenneth Griffin

- (a) Mr. Griffin may be deemed to beneficially own 2,163,916 Shares.
- (b) The number of Shares that Mr. Griffin may be deemed to beneficially own constitutes 6.1% of the Shares outstanding.
- (c) Number of Shares as to which such person has:
  - (i) sole power to vote or to direct the vote: 0
  - (ii) shared power to vote or to direct the vote: 2,163,916
  - (iii) sole power to dispose or to direct the disposition of: 0
  - (iv) shared power to dispose or to direct the disposition of: 2,163,916

#### 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 5 percent of the class of securities, check the following.  $\Box$ 

#### Item 6. Ownership of More Than Five Percent on Behalf of Another Person:

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company:

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. Certifications:

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 its knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Dated February 14, 2023.

## CITADEL SECURITIES LLC

By: /s/ Guy Miller Guy Miller, Authorized Signatory

### CITADEL SECURITIES GROUP LP

By: /s/ Guy Miller Guy Miller, Authorized Signatory

### CITADEL SECURITIES GP LLC

By: /s/ Guy Miller Guy Miller, Authorized Signatory

#### CITADEL ADVISORS LLC

By: /s/ Sean McHugh Sean McHugh, Authorized Signatory

## CITADEL ADVISORS HOLDINGS LP

By: /s/ Sean McHugh Sean McHugh, Authorized Signatory

### CITADEL GP LLC

By: /s/ Sean McHugh Sean McHugh, Authorized Signatory

### **KENNETH GRIFFIN**

By: /s/ Sean McHugh Sean McHugh, attorney-in-fact\*

\* Sean McHugh is signing on behalf of Kenneth Griffin as attorney-in-fact pursuant to a power of attorney previously filed with the Securities and Exchange Commission, and hereby incorporated by reference herein. The power of attorney was filed as an attachment to a filing by Citadel Advisors LLC on Schedule 13G for Gores Holdings VIII, Inc. on March 18, 2022.