SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 2)*

Bright Minds Biosciences Inc.

(Name of Issuer)

Common Stock, no par value

(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)

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Vivo Opportunity Fund Holdings, 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 DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 378,484.00
	6	Shared Voting Power 0.00
	7	Sole Dispositive Power 378,484.00
	8	Shared Dispositive Power 0.00
9		Aggregate Amount Beneficially Owned by Each Reporting Person 378,484.00
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) 3.8 %
12		Type of Reporting Person (See Instructions) PN

Comment for Type of Reporting Person: The number represents shares of common stock, no par value (the "Common Stock") of Bright Minds Biosciences Inc. (the "Issuer") held of record by Vivo Opportunity Fund Holdings, L.P. Vivo Opportunity, LLC is the general partner of Vivo Opportunity Fund Holdings, L.P. The percentage of class is based on 9,864,061 shares of Common Stock outstanding as of June 30, 2026, as reported in the Issuer's Current Report on Form 6-K, filed with the Securities and Exchange Commission (the "SEC") on August 17, 2026.

SCHEDULE 13G

CUSIP No.

1		Names of Reporting Persons Vivo Opportunity, 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 378,484.00
	6	Shared Voting Power 0.00
	7	Sole Dispositive Power 378,484.00
	8	Shared Dispositive Power 0.00

9	Aggregate Amount Beneficially Owned by Each Reporting Person 378,484.00
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) 3.8 %
12	Type of Reporting Person (See Instructions) OO

Comment for Type of Reporting Person: The number represents shares of Common Stock of the Issuer held of record by Vivo Opportunity Fund Holdings, L.P. Vivo Opportunity, LLC is the general partner of Vivo Opportunity Fund Holdings, L.P. The percentage of class is based on 9,864,061 shares of Common Stock outstanding as of June 30, 2026, as reported in the Issuer's Current Report on Form 6-K, filed with the SEC on August 17, 2026.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Vivo Opportunity Cayman 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 39,395.00
	6	Shared Voting Power 0.00
	7	Sole Dispositive Power 39,395.00
	8	Shared Dispositive Power 0.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 39,395.00	
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) 0.4 %	
12	Type of Reporting Person (See Instructions) PN	

Comment for Type of Reporting Person: The number represents shares of Common Stock of the Issuer held of record by Vivo Opportunity Cayman Fund, L.P. Vivo Opportunity Cayman, LLC is the general partner of Vivo Opportunity Cayman Fund, L.P. The percentage of class is based on 9,864,061 shares of Common Stock outstanding as of June 30, 2026, as reported in the Issuer's Current Report on Form 6-K, filed with the SEC on August 17, 2026.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Vivo Opportunity Cayman, 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 CAYMAN ISLANDS	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 39,395.00
	6	Shared Voting Power 0.00
	7	Sole Dispositive Power 39,395.00
	8	Shared Dispositive Power 0.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 39,395.00	
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) 0.4 %	
12	Type of Reporting Person (See Instructions) OO	

Comment for Type of Reporting Person: The number represents shares of Common Stock of the Issuer held of record by Vivo Opportunity Cayman Fund, L.P. Vivo Opportunity Cayman, LLC is the general partner of Vivo Opportunity Cayman Fund, L.P. The percentage of class is based on 9,864,061 shares of Common Stock outstanding as of June 30, 2026, as reported in the Issuer's Current Report on Form 6-K, filed with the SEC on August 17, 2026.

SCHEDULE 13G

Item 1.

(a) Name of issuer:

Bright Minds Biosciences Inc.

(b) Address of issuer's principal executive offices:

400 N Aberdeen St Suite 900, Chicago, IL 60642

Item 2.

Name of person filing:

(a) Vivo Opportunity Fund Holdings, L.P. and its General Partner Vivo Opportunity, LLC Vivo Opportunity Cayman Fund, L.P. and its General Partner Vivo Opportunity Cayman, LLC

Address or principal business office or, if none, residence:

(b) 192 Lytton Avenue, Palo Alto, CA 94301

Citizenship:

(c) Vivo Opportunity Fund Holdings, L.P. is a Delaware limited partnership. Vivo Opportunity, LLC is a Delaware limited liability company. Vivo Opportunity Cayman Fund, L.P. is a Cayman Islands limited partnership. Vivo Opportunity Cayman, LLC is a Cayman Islands limited liability company.

Title of class of securities:

(d) Common Stock, no par value

(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) Vivo Opportunity, LLC beneficially owns 378,484.00 shares of Common Stock. The securities are held of record by Vivo Opportunity Fund Holdings, L.P. Vivo Opportunity, LLC is the general partner of Vivo Opportunity Fund Holdings, L.P. Vivo Opportunity Cayman, LLC beneficially owns 39,395.00 shares of Common Stock. The securities are held of record by Vivo Opportunity Cayman Fund, L.P. Vivo Opportunity Cayman, LLC is the general partner of Vivo Opportunity Cayman Fund, L.P.

Percent of class:

(b) Vivo Opportunity Fund Holdings, L.P.: 3.8% Vivo Opportunity, LLC: 3.8 % Vivo Opportunity Cayman Fund, L.P.: 0.4% Vivo Opportunity Cayman, LLC.: 0.4% %

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

Vivo Opportunity Fund Holdings, L.P.: 378,484.00 shares Vivo Opportunity, LLC: 378,484.00 shares Vivo Opportunity Cayman Fund, L.P.: 39,395.00 shares Vivo Opportunity Cayman, LLC: 39,395.00 shares

(ii) Shared power to vote or to direct the vote:

0

(iii) Sole power to dispose or to direct the disposition of:

Vivo Opportunity Fund Holdings, L.P.: 378,484.00 shares Vivo Opportunity, LLC: 378,484.00 shares Vivo Opportunity Cayman Fund, L.P.: 39,395.00 shares Vivo Opportunity Cayman, LLC: 39,395.00 shares

(iv) Shared power to dispose or to direct the disposition of:

0

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

☑ Ownership of 5 percent or less of a class

Item 6. Ownership of more than 5 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 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. 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, 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.

Vivo Opportunity Fund Holdings, L.P.

Signature: /s/ Kevin Dai
Name/Title: Kevin Dai/Managing Member of Vivo Opportunity, LLC, General Partner
Date: 11/16/2026

Vivo Opportunity, LLC

Signature: /s/ Kevin Dai
Name/Title: Kevin Dai/Managing Member
Date: 11/16/2026

Vivo Opportunity Cayman Fund, L.P.

Signature: /s/ Kevin Dai
Name/Title: Kevin Dai/Managing Member of Vivo Opportunity Cayman, LLC, General Partner
Date: 11/16/2026

Vivo Opportunity Cayman, LLC

Signature: /s/ Kevin Dai
Name/Title: Kevin Dai/Managing Member
Date: 11/16/2026