

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

(Amendment No. 10)*

Rhythm Pharmaceuticals, Inc.

(Name of Issuer)

COM

(Title of Class of Securities)

76243J105

(CUSIP Number)

06/30/2025

(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. 76243J105

	Names of Reporting Persons
1	PRIMECAP MANAGEMENT CO/CA/ Check the appropriate box if a member of a Group (see instructions)
2	☐ (a) ☐ (b)
3	Sec Use Only
	Citizenship or Place of Organization
4	UNITED STATES

Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power
		4,878,037.00
	6	Shared Voting Power
		0.00
	7	Sole Dispositive Power
		4,878,037.00
	8	Shared Dispositive Power
		0.00
	9	Aggregate Amount Beneficially Owned by Each Reporting Person
		4,878,037.00
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)
		7.67 %
12		Type of Reporting Person (See Instructions)
		IA

SCHEDULE 13G

Item 1.

Name of issuer:

(a)

Rhythm Pharmaceuticals, Inc.

Address of issuer's principal executive offices:

(b)

222 Berkeley Street, 12th Floor, Boston, CALIFORNIA 02116

Item 2.

Name of person filing:

(a)

PRIMECAP MANAGEMENT CO/CA/

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

(b)

177 EAST COLORADO BLVD. 11TH FLOOR PASADENA, California 91105

Citizenship:

(c)

PRIMECAP MANAGEMENT CO/CA/ - UNITED STATES

Title of class of securities:

(d)

COM

CUSIP No.:

(e)

76243J105

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) 4,878,037
Percent of class:
- (b) 7.67 %
- (c) Number of shares as to which the person has:
- (i) Sole power to vote or to direct the vote:
- PRIMECAP MANAGEMENT CO/CA/ - 4,878,037
- (ii) Shared power to vote or to direct the vote:
- PRIMECAP MANAGEMENT CO/CA/ - 0
- (iii) Sole power to dispose or to direct the disposition of:
- PRIMECAP MANAGEMENT CO/CA/ - 4,878,037
- (iv) Shared power to dispose or to direct the disposition of:
- PRIMECAP MANAGEMENT CO/CA/ - 0

Item 5. 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 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.

PRIMECAP MANAGEMENT CO/CA/

Signature: Jorge A. Rodriguez

Name/Title: Deputy Chief Compliance Officer

Date: 08/13/2025