

OMB APPROVAL	
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>ARCH Venture Partners XII, LLC</u> (Last) (First) (Middle) 8755 W. HIGGINS ROAD, SUITE 1025 (Street) CHICAGO IL 60631 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Prime Medicine, Inc. [PRME]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 02/15/2024	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock								6,128,297	I	By ARCH Venture Fund X, L.P. ⁽¹⁾⁽³⁾
Common Stock								6,128,297	I	By ARCH Venture Fund X Overage, L.P. ⁽²⁾⁽³⁾
Common Stock	02/15/2024		P		3,200,000	A	\$6.25	3,200,000	I	By ARCH Venture Fund XII, L.P. ⁽⁴⁾

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date					

1. Name and Address of Reporting Person*
ARCH Venture Partners XII, LLC
 (Last) (First) (Middle)
 8755 W. HIGGINS ROAD, SUITE 1025
 (Street)
 CHICAGO IL 60631
 (City) (State) (Zip)

1. Name and Address of Reporting Person*
ARCH Venture Partners XII, L.P.

(Last)	(First)	(Middle)
8755 W. HIGGINS ROAD, SUITE 1025		
<hr/>		
(Street)		
CHICAGO	IL	60631
<hr/>		
(City)	(State)	(Zip)

1. Name and Address of Reporting Person *

[ARCH Venture Fund XII, L.P.](#)

(Last)	(First)	(Middle)
8755 W. HIGGINS ROAD, SUITE 1025		
<hr/>		
(Street)		
CHICAGO	IL	60631
<hr/>		
(City)	(State)	(Zip)

Explanation of Responses:

1. Represents shares held directly by ARCH Venture Fund X, L.P. ("ARCH X"). ARCH Venture Partners X, L.P. ("AVP X LP") is the sole general partner of ARCH X.
2. Represents shares held directly by ARCH Venture Fund X Overage, L.P. ("ARCH X Overage"). ARCH Venture Partners X Overage, L.P. ("AVP X Overage LP") is the sole general partner of ARCH X Overage.
3. ARCH Venture Partners X, LLC ("AVP X LLC") is the sole general partner of each of AVP X LP and AVP X Overage LP. Keith Crandell, Kristina Burow and Steven Gillis are members of the investment committee of AVP X LLC (the "AVP X Committee Members"). AVP X LP and AVP X Overage LP may be deemed to beneficially own the shares held by ARCH X and ARCH X Overage, respectively, AVP X LLC may be deemed to beneficially own the shares held by ARCH X and ARCH X Overage, and each of the AVP X Committee Members may be deemed to share the power to direct the disposition and vote of the shares held by ARCH X and ARCH X Overage. AVP X LP, AVP X Overage LP, AVP X LLC, and the AVP X Committee Members each disclaim beneficial ownership except to the extent of any pecuniary interest therein, and this report shall not be deemed an admission that such shares are beneficially owned by them for Section 16 or any other purpose.
4. Represents shares held directly by ARCH Venture Fund XII, L.P. ("ARCH XII"). ARCH Venture Partners XII, L.P. ("AVP XII LP") is the general partner of ARCH XII. ARCH Venture Partners XII, LLC ("AVP XII LLC") is the general partner of AVP XII LP. Keith Crandell, Kristina Burow and Steven Gillis are members of the investment committee of AVP XII LLC (the "AVP XII LLC Committee Members"). Each of AVP XII LP and AVP XII LLC may be deemed to beneficially own the shares held by ARCH XII, and each of the AVP XII LLC Committee Members may be deemed to share the power to direct the disposition and vote of the shares held by ARCH XII. Each of AVP XII LP, AVP XII LLC and the AVP XII LLC Committee Members disclaims beneficial ownership except to the extent of their pecuniary interest therein, if any.

Remarks:

This Form 4 is one of two reports relating to the same transaction being filed jointly by ARCH X, AVP X LP, ARCH X Overage, AVP X Overage LP, AVP X LLC, ARCH XII, AVP XII LP, AVP XII LLC, Keith Crandell, Kristina Burow and Steven Gillis (collectively, the "Reporting Persons"). Robert Nelsen has direct ownership of Common Stock and is filing his own Form 4 separately.

[/s/ ARCH Venture Fund XII, L.P., By: ARCH Venture Partners XII, L.P., its General Partner, By: ARCH Venture Partners XII, LLC, its General Partner, By: Mark McDonnell, attorney-in-fact](#) [02/20/2024](#)

[/s/ ARCH Venture Partners XII, L.P., By: ARCH Venture Partners XII, LLC, its General Partner, By: Mark McDonnell, attorney-in-fact](#) [02/20/2024](#)

[/s/ ARCH Venture Fund XII, LLC, By: Mark McDonnell, attorney-in-fact](#) [02/20/2024](#)

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.
 * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
 ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
 Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.