

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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

OMB APPROVAL	
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1. Name and Address of Reporting Person* NELSEN ROBERT			2. Date of Event Requiring Statement (Month/Day/Year) 10/19/2022		3. Issuer Name and Ticker or Trading Symbol Prime Medicine, Inc. [PRME]	
(Last)	(First)	(Middle)	4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)			5. If Amendment, Date of Original Filed (Month/Day/Year)
8755 WEST HIGGINS ROAD, SUITE 1025						
(Street) CHICAGO IL 60631						6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person
(City) (State) (Zip)						

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Series A Convertible Preferred Stock	(l)	(l)	Common Stock	5,361,122	(l)	I	By ARCH Venture Fund X, L.P. ⁽²⁾⁽³⁾
Series A Convertible Preferred Stock	(l)	(l)	Common Stock	5,361,122	(l)	I	By ARCH Venture Fund X Overage, L.P. ⁽³⁾⁽⁴⁾
Series B Convertible Preferred Stock	(l)	(l)	Common Stock	367,175	(l)	I	By ARCH Venture Fund X, L.P. ⁽²⁾⁽³⁾
Series B Convertible Preferred Stock	(l)	(l)	Common Stock	367,175	(l)	I	By ARCH Venture Fund X Overage, L.P. ⁽³⁾⁽⁴⁾

Explanation of Responses:

- The shares of Series A Convertible Preferred Stock and Series B Convertible Preferred Stock (together, the "Preferred Stock") are convertible into Common Stock on a one-for-3.10880 basis at any time at the option of the holder, and will automatically convert into the number of shares shown in Column 3 immediately prior to the closing of the Issuer's initial public offering. The Preferred Stock has no expiration date.
- 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.
- ARCH Venture Partners X, LLC ("AVP X LLC") is the sole general partner of each of AVP X LP and AVP X Overage LP. The Reporting Person is a member of the investment committee of AVP X LLC, and may be deemed to share the power to direct the disposition and vote of the shares held by ARCH X and ARCH X Overage. The Reporting Person disclaims 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 him for Section 16 or any other purpose.
- 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.

Remarks:

Exhibit 24 - Power of Attorney

/s/ Carman Alenson attorney-in-fact

10/19/2022

** 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 5 (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.

LIMITED POWER OF ATTORNEY

The undersigned hereby constitutes and appoints each of Keith Gottesdiener, Carman Alenson and Karen Brown of Prime Medicine, Inc., a Delaware

(1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer and/or director of the Company, from time to

(2) do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to complete and execute any such

(3) take any other action of any type whatsoever in connection with the foregoing that, in the opinion of such attorney-in-fact, may be of

The undersigned hereby grants to each such attorney-in-fact, acting singly, full power and authority to do and perform any and every act and t

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file such forms with respect to the

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of
October 19, 2022.

/s/ Robert Nelsen

Signature

Robert Nelsen

Print Name