

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

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): June 27, 2023

Minerva Neurosciences, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-36517
(Commission
File Number)

26-0784194
(IRS Employer
Identification No.)

1500 District Avenue, Burlington, MA 01803
(Address of principal executive offices) (Zip Code)

(617) 600-7373
(Registrant's telephone number, including area code)

Not applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|--|----------------------|--|
| Common Stock, \$0.0001 par value per share | NERV | The Nasdaq Capital Market |

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter). Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement.

On June 27, 2023, Minerva Neurosciences, Inc. (the “Company”) entered into a securities purchase agreement (the “Securities Purchase Agreement”) with certain institutional accredited investors (the “Investors”), pursuant to which the Company agreed to issue and sell to the Investors in a private placement (the “Private Placement”) (i) an aggregate of 1,425,000 shares (the “Shares”) of the Company’s common stock, \$0.0001 par value per share (the “Common Stock”), at a purchase price of \$10.00 per Share, and (ii) in lieu of additional shares of Common Stock, pre-funded warrants (the “Pre-Funded Warrants”) to purchase an aggregate of 575,575 shares of Common Stock at a purchase price of \$9.99 per Pre-Funded Warrant. The price per Pre-Funded Warrant represents the price of \$10.00 per Share to be sold in the Private Placement, minus the \$0.01 per share exercise price of each such Pre-Funded Warrant. The Pre-Funded Warrants are exercisable at any time after their original issuance and will not expire until exercised in full.

The Pre-Funded Warrants to be issued in the Private Placement will provide that a holder of the Pre-Funded Warrants will not have the right to exercise any portion of its Pre-Funded Warrants to the extent such holder, together with its affiliates, after giving effect to such exercise, would beneficially own in excess of the beneficial ownership limitation, as elected by such Investor, immediately after giving effect to such exercise (the “Beneficial Ownership Limitation”); provided, however, that each Pre-Funded Warrant holder may increase or decrease the Beneficial Ownership Limitation by giving 61 days’ notice to the Company, but not to any percentage in excess of 19.99%.

The Private Placement is expected to close on or about June 30, 2023, subject to the satisfaction of certain customary closing conditions. The Company expects to receive aggregate gross proceeds from the Private Placement of approximately \$20.0 million, before deducting estimated offering expenses payable by the Company. The Company expects the net proceeds from the Private Placement to be used to support potential regulatory approval in the U.S., commercialization activities and market launch of roluperidone, which is being developed for the treatment of negative symptoms in schizophrenia.

Pursuant to the Securities Purchase Agreement, the Company has agreed to file a registration statement covering the resale of the Registrable Securities (as such term is defined in the Securities Purchase Agreement) on or before the date that is 45 days after the date of the closing of the Private Placement (the “Filing Deadline”). The Company has agreed to use its commercially reasonable efforts to keep such registration statement effective until the earlier of (i) the third anniversary of the effective date of the initial registration statement covering the Registrable Securities; (ii) the date all Shares and all shares of Common Stock underlying the Pre-Funded Warrants may be sold under Rule 144 without being subject to any volume, manner of sale or publicly available information requirements; or (iii) immediately prior to the closing of a Change of Control (as such term is defined in the Securities Purchase Agreement). The Company has agreed to be responsible for all expenses incurred in connection with the registration of the Registrable Securities.

Pursuant to the Securities Purchase Agreement, in connection with the Private Placement, Boehringer Ingelheim International GmbH, an Investor in the Private Placement, will have the right to designate an observer to attend, subject to certain exceptions, meetings of the Company’s board of directors and its committees, until the earlier of (i) the occurrence of a Change of Control and (ii) the date that it and its affiliates collectively hold less than 10% of the Company’s Common Stock (which shall be calculated by including in the amount of Common Stock held by such Investor and its affiliates any shares of common stock issuable upon exercise of any portion of the Pre-Funded Warrant issued to such Investor and not yet exercised).

The foregoing descriptions of the Pre-Funded Warrants and the Securities Purchase Agreement do not purport to be complete and are qualified in their entirety by reference to such agreements, copies of which are filed as Exhibits 4.1 and 10.1 hereto, respectively, and incorporated by reference herein.

Item 3.02 Unregistered Sales of Equity Securities.

The information contained above in Item 1.01 relating to the Private Placement is hereby incorporated by reference into this Item 3.02. The offering and sale of the securities will be made in reliance on the exemption afforded by Section 4(a)(2) of the Securities Act of 1933, as amended (the “Securities Act”), as a transaction not

involving a public offering, and Regulation D under the Securities Act, and corresponding provisions of state securities or “blue sky” laws. The securities will not be registered under the Securities Act or any state securities laws and may not be offered or sold in the United States absent registration with the Securities and Exchange Commission or an applicable exemption from the registration requirements. The sale of the securities will not involve a public offering and will be made without general solicitation or general advertising.

Neither this Current Report on Form 8-K nor any exhibit attached hereto is an offer to sell or the solicitation of an offer to buy shares of Common Stock or other securities of the Company.

Item 8.01 Other Events.

On June 28, 2023, the Company issued a press release announcing the pricing of the Private Placement. A copy of the press release is filed as Exhibit 99.1 hereto and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

| <u>Exhibit No.</u> | <u>Description</u> |
|--------------------|--|
| 4.1 | Form of Pre-Funded Warrant. |
| 10.1 | Securities Purchase Agreement, dated June 27, 2023, by and among Minerva Neurosciences, Inc. and the purchasers party thereto. |
| 99.1 | Press release announcing Private Placement, dated June 28, 2023. |
| 104 | Cover Page Interactive Data File (embedded within the Inline XBRL document). |

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

MINERVA NEUROSCIENCES, INC.

Date: June 28, 2023

By: /s/ Geoffrey Race
Geoffrey Race
President

FORM OF PRE-FUNDED WARRANT

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES. THE SECURITIES AND THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER APPLICABLE SECURITIES LAWS, OR UNLESS OFFERED, SOLD, PLEDGED, HYPOTHECATED OR TRANSFERRED PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS. THE COMPANY SHALL BE ENTITLED TO REQUIRE AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED TO THE EXTENT THAT SUCH OPINION IS REQUIRED PURSUANT TO THAT CERTAIN SECURITIES PURCHASE AGREEMENT UNDER WHICH THE SECURITIES WERE ISSUED.

MINERVA NEUROSCIENCES, INC.

PRE-FUNDED WARRANT TO PURCHASE COMMON STOCK

No. PFW []

June 30, 2023

THIS CERTIFIES THAT, for value received, [] or its permitted assigns (the “**Holder**”), is entitled to subscribe for and purchase at the Exercise Price (defined below) from Minerva Neurosciences, Inc., a Delaware corporation (the “**Company**”), with an address of 1500 District Avenue, Burlington, Massachusetts 01803, up to [] shares of the Common Stock of the Company (the “**Common Stock**”), subject to adjustment as provided herein. This Warrant is one of a series of Warrants being issued pursuant to the terms of the Securities Purchase Agreement, dated June 27, 2023, by and among the Company and the original Holder of this Warrant and the other parties named therein (the “**Purchase Agreement**”). Capitalized terms not otherwise defined herein shall have the respective meanings ascribed to such terms in the Purchase Agreement.

1. **DEFINITIONS.** As used herein, the following terms shall have the following respective meanings:

1.1 “**Exercise Price**” shall mean \$0.01 per share, subject to adjustment pursuant to Section 5 below.

1.2 “**Exercise Shares**” shall mean the shares of the Company’s Common Stock issued upon exercise of this Warrant, subject to adjustment pursuant to the terms herein, including but not limited to adjustment pursuant to Section 5 below.

2. **EXERCISE OF WARRANT.**

2.1 Method of Exercise. The rights represented by this Warrant may be exercised in whole or in one or more parts at any time on or after June 30, 2023, by delivery of the following to the Company at its address set forth above (or at such other address as it may designate by notice in writing to the Holder):

(a) An executed Notice of Exercise in the form attached hereto;

(b) Payment of the Exercise Price either (i) in cash or by check or wire transfer of immediately available funds, or (ii) pursuant to a Cashless Exercise, as described and permitted below; and

(c) This Warrant.

Upon the exercise of the rights represented by this Warrant, shares of Common Stock shall be issued for the Exercise Shares so purchased, and shall be registered in the name of the Holder or persons affiliated with the Holder, if the Holder so designates, within a reasonable time after the rights represented by this Warrant shall have been so exercised and shall be issued in certificate form and delivered to the Holder, if so requested.

The person in whose name any Exercise Shares are to be issued upon exercise of this Warrant shall be deemed to have become the holder of record of such shares on the date on which this Warrant was surrendered and payment of the Exercise Price was made, irrespective of the date of issuance of the shares of Common Stock, except that, if the date of such surrender and payment is a date when the stock transfer books of the Company are closed, such person shall be deemed to have become the holder of such shares at the close of business on the next succeeding date on which the stock transfer books are open.

2.2 Cashless Exercise. Notwithstanding any provisions herein to the contrary, if, at any time the Current Market Price (as defined below) of one share of Common Stock is greater than the Exercise Price (at the date of calculation as set forth below), then, in lieu of exercising this Warrant by payment of cash, the Holder may exercise this Warrant by a cashless exercise by surrender of this Warrant at the principal office of the Company together with the properly endorsed Notice of Exercise and the Company shall issue to the Holder a number of shares of Common Stock computed using the following formula:

$$X = \frac{Y(B-A)}{B}$$

Where: X = the number of shares of Common Stock to be issued to the Holder.
Y = the number of shares of Common Stock purchasable upon exercise of all of the Warrant or, if only a portion of the Warrant is being exercised, the portion of the Warrant being exercised.
A = the Exercise Price.
B = the Current Market Price of one share of Common Stock.

“**Current Market Price**” means on any particular date:

(a) if the Common Stock is traded on The Nasdaq Stock Market (“*Nasdaq*”), the closing price of the Common Stock of the Company on such market on the day prior to the applicable date of valuation;

(b) if the Common Stock is traded on any registered national stock exchange but is not traded on Nasdaq, the closing price of the Common Stock of the Company on such exchange on the day prior to the applicable date of valuation;

(c) if the Common Stock is traded over-the-counter, but not on Nasdaq or another registered national stock exchange, the closing bid price of the Common Stock of the Company on the day prior to the applicable date of valuation; and

(d) if there is no active public market for the Common Stock, the value thereof, as determined in good faith by the Board of Directors of the Company upon due consideration of the proposed determination thereof by the Holder.

2.3 Partial Exercise. If this Warrant is exercised in part only, the Company shall, upon surrender of this Warrant, execute and deliver, within 5 days of the date of exercise, a new Warrant evidencing the rights of the Holder, or such other person as shall be designated in the Notice of Exercise, to purchase the balance of the Exercise Shares purchasable hereunder. In no event shall this Warrant be exercised for a fractional Exercise Share, and the Company shall not distribute a Warrant exercisable for a fractional Exercise Share. Fractional Warrant shares shall be treated as provided in Section 6 hereof.

2.4 No Settlement for Cash. The Warrant cannot be settled with the Company for cash and except with respect to fractional shares as provided herein, the Company shall have no obligation to pay cash upon any exercise of this Warrant.

2.5 Exercise Limitation. The Company shall not effect the exercise of this Warrant and the Holder shall not have the right to exercise this Warrant, to the extent that after giving effect to such exercise, the Holder (together with the Holder's Affiliates) would beneficially own in excess of [14.99/19.99%] of the shares of Common Stock outstanding and/or the then combined voting power of all of the Company's voting securities immediately after giving effect to such exercise (the "**Beneficial Ownership Limitation**"). For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by such Holder and its Affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (a) exercise of the remaining, unexercised portion of this Warrant beneficially owned by such Holder and its Affiliates and (b) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company beneficially owned by such Holder and its Affiliates (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein. Except as set forth in the preceding sentence, for purposes of this paragraph, beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act. For purposes of this Warrant, in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Form 10-Q or Form 10-K, as the case may be, filed with the SEC on the date thereof, (y) a more recent public announcement by the Company or (z) any other notice by the Company or its transfer agent setting forth the number of shares of Common Stock outstanding. By written notice to the Company, the Holder may from time to time increase or decrease the Beneficial Ownership Limitation to any other percentage (not in excess of 19.99% of the issued and outstanding shares of Common Stock outstanding and/or the then combined voting power of all of the Company's voting securities immediately after giving effect to such exercise (the "**Maximum Percentage**") or if exceeding that limit would result in a change of control under Nasdaq Stock Market Rule 5635(b) or any successor rule) specified in such notice; provided that (i) any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to the Holder and not to any other holder of Warrants. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this paragraph to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended beneficial ownership limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation and comply with any rules of Nasdaq. Notwithstanding any of the limitations set forth in this paragraph, (x) this Warrant shall be fully exercisable in connection with a Liquidation Event (as defined below); provided further that this clause (x) shall not be given effect to the extent it could conflict with the rules of Nasdaq or any similar rule of any stock exchange on which the Common Stock is listed at the relevant time, and (y) this Section 2.5 shall not restrict the number of shares of Common Stock which the Holder may receive or beneficially own in order to determine the amount of securities or other consideration that such Holder may receive in the event of a Fundamental Transaction as contemplated in Section 3.5 hereof. In accordance with such listing standards, this restriction will apply at any time when the Warrant is outstanding, regardless of whether the Company then has a class of securities listed on Nasdaq. For purposes herein, "**Liquidation Event**" shall mean the consummation of any of the following transactions: (a) a merger or consolidation in which the Company is not the surviving entity (other than a merger or consolidation with a wholly owned subsidiary, a reincorporation or continuation of the Company in a different jurisdiction, or other transaction in which there is no substantial change in the stockholders of the Company), (b) the sale of all or substantially all of the assets of the Company, or (c) the acquisition of all of the outstanding shares of the Company by a single stockholder and its Affiliates as a result of a tender offer or similar transaction.

3. COVENANTS OF THE COMPANY.

3.1 Covenants as to Exercise Shares. The Company covenants and agrees that all Exercise Shares that may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be validly issued and outstanding, fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issuance thereof. The Company further covenants and agrees that the Company will at all times while this Warrant is outstanding have authorized and reserved, free from preemptive rights, a sufficient number of shares of its Common Stock to provide for the exercise of the rights represented by this Warrant. If at any time while this Warrant is outstanding the number of authorized but unissued shares of Common Stock shall not be sufficient to permit exercise of this Warrant, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock (or other securities as provided herein) to such number of shares as shall be sufficient for such purposes.

3.2 No Impairment. Except and to the extent as waived or consented to by the Holder or otherwise in accordance with Section 11 hereof, the Company will not, by amendment of its Certificate of Incorporation (as such may be amended from time to time), or through any means, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but will at all times in good faith assist in the carrying out of all the provisions of this Warrant and in the taking of all such action as may be necessary or appropriate in order to protect the exercise rights of the Holder against impairment.

3.3 Notices of Record Date. In the event of any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend which is the same as cash dividends paid in previous quarters) or other distribution, the Company shall mail to the Holder, at least 10 days prior to the date thereof, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution.

3.4 Distributions. If the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) (the “**Distributed Property**”) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “**Distribution**”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled, upon exercise of this Warrant for the purchase of any or all of the Exercise Shares, to receive the amount of Distributed Property which would have been payable to the Holder had such Holder been the holder of such Exercise Shares on the record date for the determination of the stockholders entitled to receive such Distributed Property. The Company will at all times set aside in escrow and keep available for distribution to such Holder upon exercise of this Warrant a portion of the Distributed Property to satisfy the distribution to which such Holder is entitled pursuant to the preceding sentence.

3.5 Fundamental Transactions. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation with or into another person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions (which, for the avoidance of doubt, shall not include a license or other agreement granting rights to intellectual property), (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of more than 50% of the outstanding shares of Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another person whereby such other person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other person or other persons making or party to, or associated or affiliated with the other persons making or party to, such stock or share purchase agreement or other business combination) (each a “**Fundamental Transaction**”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Exercise Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2.5 on the exercise of this Warrant), the number of shares of common stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (together, the “**Alternate Consideration**”), if any, receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2.5 on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Any such payment of such amount of such Alternative Consideration shall be made in the same form of consideration (whether securities, cash or property) as is given to the holders of Common Stock in such Fundamental Transaction, and if multiple forms of consideration are given, the consideration shall be paid to the Holder in the same proportion as such consideration is paid to the holders of Common Stock. The terms of

any agreement pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 3.5 and insuring that this Warrant (or any such replacement security) will be similarly adjusted upon any subsequent Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “**Successor Entity**”) to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3.5 and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such adjustments to the number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for the Company (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein. Notwithstanding the foregoing, and without limiting Section 2.5 hereof, the Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 3.5 to permit a Fundamental Transaction without the assumption of this Warrant.

4. REPRESENTATIONS OF HOLDER.

4.1 Acquisition of Warrant for Personal Account. The Holder represents and warrants that it is acquiring the Warrant and the Exercise Shares solely for its account for investment and not with a present view toward the public or distribution of said Warrant or Exercise Shares or any part thereof and has no intention of selling or distributing said Warrant or Exercise Shares or any arrangement or understanding with any other persons regarding the sale or distribution of said Warrant or, except in accordance with the provisions of Section 6 of the Purchase Agreement, the Exercise Shares, and except as would not result in a violation of the Securities Act. The Holder will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire or take a pledge of) the Warrant except in accordance with the Securities Act and will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire or take a pledge of) the Exercise Shares except in accordance with the provisions of Section 6 of the Purchase Agreement or pursuant to and in accordance with the Securities Act.

4.2 Securities Are Not Registered.

(a) The Holder understands that the offer and sale of the Warrant and the Exercise Shares have not been registered under the Securities Act on the basis that no distribution or public offering of the securities is to be effected. The Holder realizes that the basis for the exemption may not be present if, notwithstanding its representations, the Holder has a present intention of acquiring the securities for a fixed or determinable period in the future, selling (in connection with a distribution or otherwise), granting any participation in, or otherwise distributing the securities. The Holder has no such present intention.

(b) The Holder recognizes that the Warrant and the Exercise Shares must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. The Holder recognizes that the Company has no obligation to register the Warrant or, except as provided in the Purchase Agreement, the Exercise Shares of the Company, or to comply with any exemption from such registration.

(c) The Holder is aware that neither the Warrant nor the Exercise Shares may be sold pursuant to Rule 144 adopted under the Securities Act unless certain conditions are met, including, among other things, the availability of certain current public information about the Company and the resale following the required holding period under Rule 144. Holder is aware that any such sale made in reliance on Rule 144, if Rule 144 is available, may be made only in accordance with the terms of Rule 144.

4.3 Disposition of Warrant and Exercise Shares.

(a) The Holder further agrees not to make any disposition of all or any part of the Warrant or Exercise Shares in any event unless and until:

(i) The Company shall have received a letter secured by the Holder from the SEC stating that no action will be recommended by the SEC with respect to the proposed disposition;

(ii) There is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with said registration statement; or

(iii) The proposed disposition is made pursuant to an exemption from the registration requirements of the Securities Act.

(b) The Holder understands and agrees that all certificates evidencing the Exercise Shares to be issued to the Holder may bear a legend in substantially the following form; provided, that such legend shall be removed (or such Exercise Shares shall be issued without such legend upon exercise of this Warrant) as required pursuant to Section 3.8(b) or 3.8(c) of the Purchase Agreement:

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES. THE SECURITIES AND THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER APPLICABLE SECURITIES LAWS, OR UNLESS OFFERED, SOLD, PLEDGED, HYPOTHECATED OR TRANSFERRED PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS. THE COMPANY SHALL BE ENTITLED TO REQUIRE AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED TO THE EXTENT THAT SUCH OPINION IS REQUIRED PURSUANT TO THAT CERTAIN SECURITIES PURCHASE AGREEMENT UNDER WHICH THE SECURITIES WERE ISSUED.

5. ADJUSTMENT OF EXERCISE PRICE. In the event of changes in the outstanding Common Stock or voting securities of the Company by reason of stock dividends, split-ups, recapitalizations, reclassifications, combinations or exchanges of shares, separations, reorganizations, liquidations, or the like, the number and class of shares available under the Warrant in the aggregate and the Exercise Price shall be correspondingly adjusted to give the Holder of the Warrant, on exercise for the same aggregate Exercise Price, the total number, class, and kind of shares as the Holder would have owned had the Warrant been exercised prior to the event and had the Holder continued to hold such shares until after the event requiring adjustment. The form of this Warrant need not be changed because of any adjustment in the number, class, and kind of shares subject to this Warrant. The Company shall promptly provide a certificate from an executive officer of the Company notifying the Holder in writing of any adjustment in the Exercise Price and/or the total number, class, and kind of shares issuable upon exercise of this Warrant, which certificate shall specify the Exercise Price and number, class and kind of shares under this Warrant after giving effect to such adjustment.

6. FRACTIONAL SHARES. No fractional shares shall be issued upon the exercise of this Warrant as a consequence of any adjustment pursuant hereto. All Exercise Shares (including fractions) issuable upon exercise of this Warrant may be aggregated for purposes of determining whether the exercise would result in the issuance of any fractional share. If, after aggregation, the exercise would result in the issuance of a fractional share, the Company shall, in lieu of issuance of any fractional share, pay the Holder otherwise entitled to such fraction a sum in cash equal to the product resulting from multiplying the Exercise Price by such fraction.

7. CERTAIN EVENTS. In the event of any capital reorganization, or any reclassification of the capital stock of the Company (other than a change in par value or from par value to no par value or no par value to par value or as a result of a stock dividend or subdivision, split-up or combination of shares), or the consolidation or merger of the Company with or into another corporation (other than a merger solely to effect a reincorporation of the Company into

another jurisdiction), in each case, in which the stockholders of the Company immediately prior to such capital reorganization, reclassification, consolidation or merger, will hold less than a majority of the outstanding shares of the Company or resulting corporation immediately after such capital reorganization, reclassification, consolidation or merger, or the sale or other disposition of all or substantially all of the properties and assets of the Company and its subsidiaries, taken as a whole, in its entirety to any other person, other than sales or other dispositions that do not require stockholder approval (each, an “**Event**”), the Company shall provide to the Holder 10 days’ advance written notice of such Event, and the Holder shall have the option, in its sole discretion, to allow any unexercised portion of the Warrant to be deemed automatically exercised pursuant to Section 2.2, subject to Section 2.5. This Warrant will be binding upon the successors and assigns of the Company upon an Event.

8. NO STOCKHOLDER RIGHTS. This Warrant in and of itself shall not entitle the Holder to any voting rights or other rights as a stockholder of the Company.

9. TRANSFER OF WARRANT. Subject to applicable laws, including compliance with all applicable securities laws, this Warrant and all rights hereunder are transferable, by the Holder in person or by duly authorized attorney, upon delivery of this Warrant and the form of assignment attached hereto to any transferee designated by Holder.

10. LOST, STOLEN, MUTILATED OR DESTROYED WARRANT. If this Warrant is lost, stolen, mutilated or destroyed, the Company may, on such terms as to indemnity or otherwise as it may reasonably impose (which shall, in the case of a mutilated Warrant, include the surrender thereof), issue a new Warrant of like denomination and tenor as the Warrant so lost, stolen, mutilated or destroyed and in lieu thereof.

11. MODIFICATIONS AND WAIVER. Except for Section 2.5 of this Warrant at any time prior to the Company attaining stockholder approval for issuances of shares of Common Stock upon exercise of this Warrant in excess of the Maximum Percentage and at which the Company otherwise satisfies the requirements of Nasdaq Stock Market Rule 5635 (or any successor rule) with respect to issuances of shares of Common Stock upon exercise of this Warrant, this Warrant and any provision hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the Company and the Holder. Any modification, amendment or waiver by a party effected in accordance with this Section 11 shall be binding upon the Holder, including with respect to any Exercise Shares then issuable and held by such parties or party and each future holder of all such securities.

12. NOTICES, ETC. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed email if sent during normal business hours of the recipient, if not, then on the next Business Day, (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one Business Day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the Company at the address or email address listed on the signature page, with a copy (which shall not constitute notice) to: Cooley LLP, 500 Boylston St., 14th Floor, Boston, MA 02116, Attention: Ryan Sansom at rsansom@cooley.com, and to the Holder at the address or email address on the Company records, or at such other address or email address as the Company or Holder may designate by 10 days’ advance written notice to the other party hereto.

13. ACCEPTANCE. Receipt of this Warrant by the Holder shall constitute acceptance of and agreement to all of the terms and conditions contained herein.

14. GOVERNING LAW. This Warrant and all rights, obligations and liabilities hereunder shall be governed by the laws of the State of New York without regard to the principles of conflict of laws.

15. DESCRIPTIVE HEADINGS. The descriptive headings of the several paragraphs of this Warrant are inserted for convenience only and do not constitute a part of this Warrant. The language in this Warrant shall be construed as to its fair meaning without regard to which party drafted this Warrant.

16. SEVERABILITY. The invalidity or unenforceability of any provision of this Warrant in any jurisdiction shall not affect the validity or enforceability of such provision in any other jurisdiction, or affect any other provision of this Warrant, which shall remain in full force and effect.

17. ENTIRE AGREEMENT. This Warrant constitutes the entire agreement between the parties pertaining to the subject matter contained in it and supersedes all prior and contemporaneous agreements, representations, and undertakings of the parties, whether oral or written, with respect to such subject matter.

[Signature Page Follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its duly authorized officer as of June 30, 2023.

MINERVA NEUROSCIENCES, INC.

By: _____

Name: _____

Title: _____

Address: 1500 District Avenue
Burlington, Massachusetts 01803

Email:

NOTICE OF EXERCISE

TO: MINERVA NEUROSCIENCES, INC.

(1) The undersigned hereby elects to (check one box only):

purchase _____ shares of the Common Stock of Minerva Neurosciences, Inc. (the “**Company**”) pursuant to the terms of the attached Warrant, and tenders herewith payment of the exercise price in full for such shares, together with all applicable transfer taxes, if any.

purchase the number of shares of Common Stock of the Company by cashless exercise pursuant to the terms of the Warrant as shall be issuable upon cashless exercise of the portion of the Warrant relating to _____ shares, and shall tender payment of all applicable transfer taxes, if any.

(2) Please issue a certificate or certificates representing said shares of Common Stock in the name of the undersigned or in such other name as is specified below:

(Name)

(Address)

(Email address)

(3) The undersigned represents that (i) the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares; (ii) the undersigned is aware of the Company’s business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision regarding its investment in the Company; (iii) the undersigned is experienced in making investments of this type and has such knowledge and background in financial and business matters that the undersigned is capable of evaluating the merits and risks of this investment and protecting the undersigned’s own interests; (iv) the undersigned understands that the shares of Common Stock issuable upon exercise of this Warrant have not been registered under the Securities Act of 1933, as amended (the “**Securities Act**”), by reason of a specific exemption from the registration provisions of the Securities Act, which exemption depends upon, among other things, the bona fide nature of the investment intent as expressed herein, and, because such securities have not been registered under the Securities Act, they must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available; (v) the undersigned is aware that the aforesaid shares of Common Stock may not be sold pursuant to Rule 144 adopted under the Securities Act unless certain conditions are met, including a condition that the undersigned has held the shares for the time period prescribed by Rule 144; and (vi) the undersigned agrees not to make any disposition of all or any part of the aforesaid shares of Common Stock unless and until there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with said registration statement, or such disposition is not required to be registered pursuant to the Securities Act or any applicable state securities laws.

(Date)

(Signature)

(Print name)

ASSIGNMENT FORM

(To assign the foregoing Warrant, subject to compliance with Section 4.3 thereof, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to:

Name:

(Please Print)

Address:

(Please Print)

Email address:

Dated: _____, 20__

Holder's
Signature: _____

Holder's
Address: _____

NOTE: The signature to this Assignment Form must correspond with the name as it appears on the face of the Warrant, without alteration or enlargement or any change whatever. Officers of corporations and those acting in a fiduciary or other representative capacity should file proper evidence of authority to assign the foregoing Warrant.

SECURITIES PURCHASE AGREEMENT

THIS SECURITIES PURCHASE AGREEMENT (this "**Agreement**"), dated as of June 27, 2023, is made by and among MINERVA NEUROSCIENCES, INC., a Delaware corporation (the "**Company**"), and the Purchasers listed on **Exhibit A** hereto, together with their permitted transferees (each, a "**Purchaser**" and collectively, the "**Purchasers**").

RECITALS

A. The Company and the Purchasers are executing and delivering this Agreement in reliance upon the exemption from securities registration afforded by Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D ("**Regulation D**") as promulgated by the SEC under the Securities Act.

B. The Purchasers desire to purchase and the Company desires to sell, upon the terms and conditions stated in this Agreement, up to a maximum of \$19,999,994.25 of shares of the Company's Common Stock and Pre-Funded Warrants to purchase Common Stock of the Company.

C. The capitalized terms used herein and not otherwise defined have the meanings given them in Article 7.

AGREEMENT

In consideration of the premises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Purchasers (severally and not jointly) hereby agree as follows:

ARTICLE 1

PURCHASE AND SALE OF SECURITIES

1.1 Purchase and Sale of Securities. At the Closing, the Company will issue and sell to each Purchaser, and each Purchaser will, severally and not jointly, purchase from the Company, (a) the number of shares of Common Stock (the "**Shares**") set forth opposite the name of such Purchaser under the heading "Number of Shares" on **Exhibit A** attached hereto at a purchase price of \$10.00 per Share and (b) a pre-funded warrant ("**Pre-Funded Warrant**") and together with the Shares, the "**Securities**") registered in the name of such Purchaser to purchase up to the number of shares of Common Stock issuable upon exercise of the Pre-Funded Warrant (the "**Warrant Shares**") set forth opposite the name of such Purchaser under the heading "Number of Warrant Shares Underlying Pre-Funded Warrant" on **Exhibit A** attached hereto and substantially in the form of **Exhibit B** hereto, if any, at a purchase price of \$9.99 per Warrant Share. Each Pre-Funded Warrant shall be exercisable in whole or in one or more parts at an exercise price equal to \$0.01 per Warrant Share. Each Purchaser's aggregate purchase price for the Securities purchased by such Purchaser hereunder is referred to as the "**Aggregate Purchase Price**."

1.2 Closing Date. The closing of the transaction contemplated by this Agreement will take place on June 30, 2023 (the "**Closing Date**") and the closing (the "**Closing**") will be held remotely via the exchange of documents and signatures or at such other time and place as shall be agreed upon by the Company and the Purchasers hereunder of a majority in interest of the aggregate Shares and Warrant Shares issuable upon exercise of the Pre-Funded Warrants to be purchased at the Closing.

1.3 Payment. At the Closing, against, and concurrently with, delivery of such Purchaser's Securities, each Purchaser will pay the Aggregate Purchase Price set forth opposite its name on **Exhibit A** hereto by wire transfer of immediately available funds in accordance with wire instructions provided by the Company to the Purchasers prior to the Closing. At the Closing, the Company will cause its transfer agent to credit each Purchaser the number of Shares set forth on **Exhibit A** and will deliver the applicable Pre-Funded Warrants to each applicable Purchaser; *provided* that, unless the Company and a Purchaser otherwise mutually agree with respect to such Purchaser's Securities, at the Closing settlement shall occur on a "delivery versus payment" basis. On the Closing Date, the Company shall deliver to each Purchaser (or its nominee in accordance with the delivery instructions) or to a custodian designated by such Purchaser, as applicable, a copy of the records of the Company's transfer agent or other evidence showing such Purchaser as the owner of the Securities on and as of the Closing Date.

ARTICLE 2

REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Except as specifically contemplated by this Agreement or as disclosed in the SEC Documents (as defined below), the Company hereby represents and warrants to the Purchasers that:

2.1 Organization and Qualification. The Company is duly incorporated, validly existing and in good standing under the laws of the State of Delaware, with full corporate power and authority to conduct its business as currently conducted as disclosed in the SEC Documents. The Company is duly qualified to do business and is in good standing in every jurisdiction in which the nature of the business conducted by it or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, would not reasonably be expected to have a Material Adverse Effect.

2.2 Authorization; Enforcement. The Company has all requisite corporate power and authority to enter into and to perform its obligations under this Agreement, to consummate the transactions contemplated hereby and to issue the Securities in accordance with the terms hereof. The execution, delivery and performance of this Agreement by the Company and the consummation by it of the transactions contemplated hereby (including the issuance of the Securities and the Warrant Shares) have been duly authorized by the Company's board of directors and no further consent or authorization of the Company, its board of directors, or its stockholders is required. This Agreement has been duly executed by the Company and constitutes a legal, valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, or moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of equity and except as rights to indemnity and contribution may be limited by state or federal securities laws or public policy underlying such laws.

2.3 Capitalization. The authorized capital stock of the Company consists of 125,000,000 shares of Common Stock and 100,000,000 shares of Preferred Stock. The Company's disclosure of its issued and outstanding capital stock in its most recent SEC Document containing such disclosure was accurate in all material respects as of the date indicated in such SEC Document. Since the date indicated in such SEC Document, there has not been any change in the Company's capital stock, other than as a result of the exercise of stock options, settlement of restricted stock units or the award of stock options or restricted stock units in the ordinary course of business pursuant to the Company's stock-based compensation plans described in the SEC Documents. All of the issued and outstanding shares of Common Stock have been duly authorized, validly issued, fully paid, and nonassessable. The Company does not have outstanding any options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities

or obligations convertible into, or any contracts or commitments to issue or sell, shares of its capital stock or any such options, rights, convertible securities or obligations other than awards and purchase rights granted under the Company's stock option plans and its employee stock purchase plan and warrants to purchase Common Stock described in the SEC Documents. The Company's Amended and Restated Certificate of Incorporation, as amended (the "**Certificate of Incorporation**"), as in effect on the date hereof, and the Company's Amended and Restated Bylaws (the "**Bylaws**") as in effect on the date hereof, are each filed as exhibits to the SEC Documents.

2.4 Issuance of Securities. The Shares and the Warrant Shares are duly and validly authorized and, upon issuance in accordance with the terms of this Agreement (and, in the case of the Warrant Shares, upon exercise of the Pre-Funded Warrants), will be validly issued, fully paid and nonassessable and will not be subject to preemptive rights or other similar rights of stockholders of the Company.

2.5 No Conflicts; Government Consents and Permits.

(a) The execution, delivery and performance of this Agreement by the Company and the consummation by the Company of the transactions contemplated hereby (including the issuance of the Securities and, if applicable, the Warrant Shares) will not (i) conflict with or result in a violation of any provision of the Certificate of Incorporation or Bylaws or, (ii) violate or conflict with, or result in a breach of any provision of, or constitute a default under, any agreement, indenture, or instrument to which the Company is a party, or (iii) assuming the accuracy of the representations and warranties in Article 3, result in a violation of any law, rule, regulation, order, judgment or decree (including United States federal and state securities laws and regulations and regulations of any self-regulatory organizations to which the Company or its securities are subject) applicable to the Company, except in the case of clauses (ii) and (iii) only, for such conflicts, breaches, defaults, and violations as would not reasonably be expected to have a Material Adverse Effect.

(b) The Company is not required to obtain any consent, authorization or order of, or make any filing or registration with, any court or governmental agency or any regulatory or self-regulatory agency in order for it to execute, deliver or perform any of its obligations under this Agreement in accordance with the terms hereof, or to issue and sell the Securities in accordance with the terms hereof other than such as have been made or obtained, and except for (i) the registration of the Shares and the Warrant Shares under the Securities Act pursuant to Article 6 hereof, (ii) any filings required to be made under federal or state securities laws after the date hereof, (iii) any required filings or notifications regarding the issuance or listing of additional shares with Nasdaq, and (iv) the filing of a Notice of Sale of Securities on Form D with the SEC under Regulation D of the Securities Act.

(c) The Company has all permits, licenses, and any similar authority necessary for the conduct of its business as now being conducted by it and as currently proposed to be conducted as disclosed in the SEC Documents, except for such permit, license or similar authority, the lack of which would not reasonably be expected to have a Material Adverse Effect. The Company has not received any actual notice of any proceeding relating to revocation or modification of any such permit, license, or similar authority except where such revocation or modification would not reasonably be expected to have a Material Adverse Effect.

2.6 SEC Documents, Financial Statements. The Company has timely filed all reports, schedules, forms, statements and other documents required to be filed by it with the SEC since January 1, 2023, pursuant to the reporting requirements of the Exchange Act (all of the foregoing filed prior to the date hereof and all exhibits included therein and financial statements and schedules thereto and documents (other than exhibits) incorporated by reference therein, being hereinafter referred to herein as the "**SEC Documents**"). As of the date hereof, the Company is eligible to register its Common Stock for resale using

Form S-3 promulgated under the Securities Act. The Company has delivered to each Purchaser, or each Purchaser has had access to, true and complete copies of the SEC Documents. The Company is not, and never has been, a “shell company” (as defined in Rule 12b-2 under the Exchange Act). As of their respective dates, the SEC Documents complied in all material respects with the requirements of the Exchange Act or the Securities Act, as the case may be, and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. As of their respective dates, the Financial Statements and the related notes complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. The Financial Statements and the related notes have been prepared in accordance with accounting principles generally accepted in the United States, consistently applied, during the periods involved (except (a) as may be otherwise indicated in the Financial Statements or the notes thereto, or (b) in the case of unaudited interim statements, to the extent they may not include footnotes, may be condensed or summary statements or may conform to the SEC’s rules and instructions for Quarterly Reports on Form 10-Q) and fairly present in all material respects the consolidated financial position of the Company as of the dates thereof and the consolidated results of its operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal and recurring year-end audit adjustments). All material agreements that were required to be filed as exhibits to the Company’s most recent Annual Report on Form 10-K and subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K under Item 601(b)(10) of Regulation S-K (collectively, the “**Material Agreements**”) to which the Company or any Subsidiary of the Company is a party, or the property or assets of the Company or any Subsidiary of the Company are subject, have been filed as exhibits to the SEC Documents. All Material Agreements are valid and enforceable against the Company in accordance with their respective terms, except (i) as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, or moratorium or similar laws affecting creditors’ and contracting parties’ rights generally, and (ii) as enforceability may be subject to general principles of equity and except as rights to indemnity and contribution may be limited by state or federal securities laws or public policy underlying such laws. The Company is not in breach of or default under any of the Material Agreements, and to the Company’s knowledge, no other party to a Material Agreement is in breach of or default under such Material Agreement, except in each case, for such breaches or defaults as would not reasonably be expected to have a Material Adverse Effect. The Company has not received a notice of termination nor is the Company otherwise aware of any threats to terminate any of the Material Agreements.

2.7 Disclosure Controls and Procedures. The Company has established and maintains disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and the Company’s certifying officers have evaluated the effectiveness of the Company’s disclosure controls and procedures as of the end of the period covered by the most recently filed quarterly or annual periodic report under the Exchange Act (such date, the “**Evaluation Date**”). Since the Evaluation Date, there have been no significant changes in the Company’s internal control over financial reporting (as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) or, to the Company’s knowledge, in other factors that could significantly affect the Company’s internal control over financial reporting.

2.8 Accounting Controls. The Company maintains a system of internal accounting controls sufficient to provide reasonable assurances that (a) transactions are executed in accordance with management’s general or specific authorization, (b) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles as applied in the United States and to maintain accountability for assets, (c) access to assets is permitted only in accordance with management’s general or specific authorization, and (d) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

2.9 Absence of Litigation. As of the date hereof, there is no action, suit, proceeding or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the Company's knowledge, threatened against the Company that if determined adversely to the Company would reasonably be expected to have a Material Adverse Effect or would reasonably be expected to impair the ability of the Company to perform its obligations under this Agreement. To the knowledge of the Company, there is not pending or contemplated any investigation by the SEC of the Company or any director or executive officer of the Company. The Company has not received any stop order or other order suspending the effectiveness of any registration statement filed by the Company under the Exchange Act or the Securities Act and, to the Company's knowledge, the SEC has not issued any such order.

2.10 Intellectual Property Rights. The Company owns or possesses, or has a reasonable basis on which it believes it can obtain on reasonable terms, licenses or sufficient rights to use all patents, patent applications, patent rights, inventions, know-how, trade secrets, trademarks, trademark applications, service marks, service names, trade names and copyrights necessary to enable it to conduct its business as conducted as of the date hereof and, to its knowledge, as proposed to be conducted as described in the SEC Documents. As used in this Agreement, the "**Intellectual Property**" means all patents, patent applications, patent rights, inventions, know-how, trade secrets, trademarks, trademark applications, service marks, service names, trade names and copyrights necessary to enable the Company to conduct its business as conducted as of the date hereof and, to its knowledge, as proposed to be conducted as described in the SEC Documents. The Company has not infringed the intellectual property rights of third parties and no third party, to the Company's knowledge, is infringing the Intellectual Property, in each case, which could reasonably be expected to result in a Material Adverse Effect. There are no material options, licenses or agreements relating to the Intellectual Property that are not described in the SEC Documents, nor is the Company bound by or a party to any material options, licenses or agreements relating to the patents, patent applications, patent rights, inventions, know-how, trade secrets, trademarks, trademark applications, service marks, service names, trade names or copyrights of any other Person that are not described in the SEC Documents. There is no material claim or action or proceeding pending or, to the Company's knowledge, threatened that challenges any of the rights of the Company in or to, or otherwise with respect to, any Intellectual Property.

2.11 Investment Company. The Company is not and, after giving effect to the offering and sale of the Securities and the assumed exercise in full of the Pre-Funded Warrants, will not be, an "investment company" as such term is defined in the Investment Company Act of 1940, as amended (the "**Investment Company Act**"). The Company has no commitments or plans with respect to operating its business that would cause it to become subject to the Investment Company Act.

2.12 No Material Adverse Change. Since March 31, 2023, except as described or referred to in the SEC Documents and except for cash expenditures in the ordinary course of business, there has not been any change in the assets, business, properties, financial condition or results of operations of the Company that could reasonably be expected to have a Material Adverse Effect. Since March 31, 2023, (a) there has not been any dividend or distribution of any kind declared, set aside for payment, paid or made by the Company on any class of capital stock, (b) the Company has not sustained any material loss or interference with the Company's business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor disturbance or dispute or any action, order or decree of any court or arbitrator or governmental or regulatory authority, and (c) the Company has not incurred any material liabilities except in the ordinary course of business.

2.13 The Nasdaq Capital Market. The Common Stock is listed on The Nasdaq Capital Market, and, to the Company's knowledge, there are no proceedings to revoke or suspend such listing. As of the date hereof, the Company is in material compliance with the requirements of Nasdaq for continued listing of the Common Stock thereon and any other Nasdaq listing and maintenance requirements.

2.14 Accountants. Deloitte & Touche LLP, which has expressed its opinion with respect to the audited financial statements included as a part of the SEC Documents, are independent accountants as required by the Securities Act.

2.15 Insurance. The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as the Company believes are prudent and customary for a company (a) in the businesses and location in which the Company is engaged, (b) with the resources of the Company, and (c) at a similar stage of development as the Company. The Company has not received any written notice that the Company will not be able to renew its existing insurance coverage as and when such coverage expires. The Company believes it will be able to obtain similar coverage at reasonable cost from similar insurers as may be necessary to continue its business.

2.16 Foreign Corrupt Practices. Since January 1, 2021, neither the Company, any director, officer, or employee of the Company, nor to the Company's knowledge, any agent or other Person acting on behalf of the Company has, in the course of its actions for, or on behalf of, the Company (a) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity, (b) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds, (c) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or (d) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

2.17 Private Placement. Neither the Company, nor any Person acting on its behalf, has, directly or indirectly, made any offers or sales of any security or solicited any offers to buy any security, under any circumstances that would require registration of the Securities under the Securities Act. Assuming the accuracy of the representations and warranties of the Purchasers contained in Article 3 hereof and the accuracy of the information disclosed in the Accredited Investor Questionnaires provided by the Purchasers, the issuance of the Securities and the Warrant Shares are exempt from registration under the Securities Act.

2.18 No Registration Rights. No Person has the right to (a) prohibit the Company from filing a Registration Statement or (b) require the Company to register any securities for sale under the Securities Act by reason of the filing of a Registration Statement. The granting and performance of the registration rights under this Agreement will not violate or conflict with, or result in a breach of any provision of, or constitute a default under, any agreement, indenture, or instrument to which the Company is a party.

2.19 Taxes. The Company has filed all tax returns required to be filed by it and has paid all taxes that are material in amount and shown as due on such tax returns, except where the failure to so file or the failure to so pay would not reasonably be expected to have a Material Adverse Effect.

2.20 Real and Personal Property. The Company has good and marketable title to, or has valid rights to lease or otherwise use, all items of real and personal property that are material to the business of the Company as currently conducted and as described in the SEC Documents free and clear of all liens, encumbrances, claims and defects and imperfections of title except those that (a) do not materially interfere with the use of such property by the Company or (b) would not reasonably be expected to have a Material Adverse Effect.

2.21 No Manipulation of Stock. The Company has not taken, directly or indirectly, any action designed to stabilize or manipulate the price of the Common Stock or any security of the Company to facilitate the sale or resale of any of the Shares or Warrant Shares.

2.22 Related Party Transactions. Except with respect to the transactions (a) that are not required to be disclosed and (b) contemplated hereby to the extent an Affiliate of any director purchases Securities hereunder, all transactions that have occurred between or among the Company, on the one hand, and any of its officers or directors, or any Affiliate or Affiliates of any such officer or director, on the other hand, prior to the date hereof have been disclosed in the SEC Documents to the extent required to be disclosed by the Securities Act or Exchange Act, as the case may be.

2.23 Brokers and Finders. No Person will have, as a result of the sales of the Securities, any valid right, interest or claim against or upon the Company or any Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of such Purchaser.

2.24 No TID U.S. Business. The Company does not (a) produce, design, test, manufacture, fabricate, or develop any “critical technologies” within the meaning of the Defense Production Act of 1950, as amended, including all implementing regulations thereof (the “*DPA*”); (b) own, operate, maintain, supply, manufacture, or service “covered investment critical infrastructure” within the meaning of the DPA (where such activities are covered by column 2 of Appendix A to 31 C.F.R. Part 800); or (c) maintain or collect, directly or indirectly, “sensitive personal data” of U.S. citizens within the meaning of the DPA.

ARTICLE 3

PURCHASER’S REPRESENTATIONS AND WARRANTIES

Each Purchaser represents and warrants to the Company, severally and not jointly, with respect to itself and its purchase hereunder, that:

3.1 Organization; Authority. Such Purchaser is an entity validly existing and in good standing under the laws of the jurisdiction of its organization with the requisite corporate or partnership power and authority to enter into and to consummate the transactions contemplated by this Agreement. The execution and delivery of this Agreement by such Purchaser and performance by such Purchaser of the transactions contemplated hereby have been duly authorized by all necessary corporate or, if such Purchaser is not a corporation, such partnership, limited liability company or other applicable like action, on the part of such Purchaser. This Agreement has been duly executed by such Purchaser, and when delivered by such Purchaser in accordance with the terms hereof, will constitute the valid and legally binding obligation of such Purchaser, enforceable against it in accordance with its terms, except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors’ and contracting parties’ rights generally and except as enforceability may be subject to general principles of equity and except as rights to indemnity and contribution may be limited by state or federal securities laws or public policy underlying such laws.

3.2 No Conflict. The execution, delivery and performance of the Agreement by such Purchaser and the consummation by such Purchaser of the transactions contemplated hereby do not and will not (i) violate any provision of such Purchaser’s charter or organizational documents, (ii) conflict with, or constitute a default (or an event which with notice or lapse of time or both would become a default) under, or give to others any rights of termination, amendment, acceleration or cancellation of, any agreement, mortgage, deed of trust, indenture, note, bond, license, lease agreement, instrument or obligation to which such Purchaser is a party or by which such Purchaser’s properties or assets are bound, or (iii) result in a violation of any federal, state, local or foreign statute, rule, regulation, order, judgment or decree (including federal and state securities laws and regulations) applicable to such Purchaser or by which any property or asset of such Purchaser are bound or affected, except, in the case of clauses (ii) and (iii) for such conflicts, defaults or violations that would not, individually or in the aggregate, reasonably be expected to have a material adverse effect on the ability of the Purchaser to perform its obligations under this Agreement, including the purchase of the Securities.

3.3 Investment Purpose. The Purchaser is purchasing the Securities for its own account and not with a present view toward the public sale or distribution thereof in violation of the Securities Act and has no intention of selling or distributing any of such Securities or any arrangement or understanding with any other Persons regarding the sale or distribution of such Securities except in accordance with the provisions of Article 6 and except as would not result in a violation of the Securities Act. The Purchaser will not, directly or indirectly, offer, sell, pledge, transfer or otherwise dispose of (or solicit any offers to buy, purchase or otherwise acquire or take a pledge of) any of the Securities except in accordance with the provisions of Article 6 or pursuant to and in accordance with the Securities Act. The Securities are being purchased by such Purchaser in the ordinary course of its business. By making the representations herein, such Purchaser does not agree to hold any of the Securities for any minimum or other specific term and reserves the right to assign, transfer or otherwise dispose of any of the Securities at any time in accordance with or pursuant to a registration statement or a valid exemption under the Securities Act.

3.4 Information. The Purchaser has been given access to all relevant materials relating to the business, finances and operations of the Company necessary to make an investment decision, and materials relating to the offer and sale of the Securities, that have been requested by the Purchaser, including, without limitation, the SEC Documents, and the Purchaser has had the opportunity to review the SEC Documents. The Purchaser has been afforded the opportunity to ask questions of the Company. Neither the Purchaser's review or inquiries, nor any other due diligence investigations conducted by the Purchaser or its advisors, if any, or its representatives shall modify, amend or affect the Purchaser's right to rely on the Company's representations and warranties contained herein or in the Pre-Funded Warrants.

3.5 Acknowledgement of Risk.

(a) The Purchaser acknowledges and understands that its investment in the Securities involves a significant degree of risk, including, without limitation, (i) the Company remains a clinical stage business and requires substantial funds in addition to the proceeds from the sale of the Securities, (ii) an investment in the Company is speculative, and only Purchasers who can afford the loss of their entire investment should consider investing in the Company and the Securities, (iii) the Purchaser may not be able to liquidate its investment, (iv) transferability of the Securities is extremely limited, (v) in the event of a disposition of the Securities, the Purchaser could sustain the loss of its entire investment, and (vi) the Company has not paid any dividends on its Common Stock since inception and does not anticipate the payment of dividends in the foreseeable future. Such risks are more fully set forth in the SEC Documents;

(b) The Purchaser is able to bear the economic risk of holding the Securities for an indefinite period, and has knowledge and experience in financial and business matters such that it is capable of evaluating the risks of the investment in the Securities; and

(c) The Purchaser has, in connection with the Purchaser's decision to purchase Securities, not relied upon any representations or other information (whether oral or written) other than as set forth in the representations and warranties of the Company contained herein and the information disclosed in the SEC Documents, and the Purchaser has, with respect to all matters relating to this Agreement and the offer and sale of the Securities, relied solely upon the advice of such Purchaser's own counsel and has not relied upon or consulted any counsel to the Company.

3.6 Governmental Review. The Purchaser understands that no United States federal or state agency or any other government or governmental agency has passed upon or made any recommendation or endorsement of the Securities or an investment therein.

3.7 Transfer or Resale. The Purchaser understands that:

(a) the Securities and the Warrant Shares are characterized as “restricted securities” under the U.S. federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and that under such laws and applicable regulations such securities may be resold without registration under the Securities Act only in certain limited circumstances;

(b) neither the Securities nor the Warrant Shares have been, and neither are being, registered under the Securities Act (other than as contemplated in Article 6) or any applicable state securities laws and, consequently, the Purchaser may have to bear the risk of owning the Securities and the Warrant Shares, if applicable, for an indefinite period of time because the Securities and the Warrant Shares, if applicable, may not be transferred unless (i) the resale of the Securities and the Warrant Shares, if applicable, is registered pursuant to an effective registration statement under the Securities Act, as contemplated in Article 6, (ii) the Purchaser has delivered to the Company an opinion of counsel (in form, substance and scope customary for opinions of counsel in comparable transactions) to the effect that the Shares and the Warrant Shares, if applicable, to be sold or transferred may be sold or transferred pursuant to an exemption from such registration, or (iii) the Securities and the Warrant Shares, if applicable, are sold or transferred pursuant to Rule 144 (*provided* that the Purchaser provides the Company with reasonable assurances (in the form of a seller representation letter) that the securities may be sold pursuant to such rule);

(c) any sale of the Securities or the Warrant Shares, as applicable, made in reliance on Rule 144 may be made only in accordance with the terms of Rule 144 and, if Rule 144 is not applicable, any resale of the Securities or the Warrant Shares, as applicable, under circumstances in which the seller (or the Person through whom the sale is made) may be deemed to be an underwriter (as that term is defined in the Securities Act) may require compliance with some other exemption under the Securities Act or the rules and regulations of the SEC thereunder; and

(d) except as set forth in Article 6, neither the Company nor any other Person is under any obligation to register the resale of the Securities or the Warrant Shares, as applicable, under the Securities Act or any state securities laws or to comply with the terms and conditions of any exemption thereunder in connection with the resale of the Securities or the Warrant Shares, as applicable.

3.8 Legends.

(a) Without limiting the Company’s registration obligations in Section 6.1, the Purchaser understands that any certificates representing the Securities will bear a restrictive legend in substantially the following form, in addition to any other legend required by applicable state securities laws or as may be appropriate to legend any restrictions on transfer set forth in this Agreement (and a stop-transfer order may be placed against transfer of the certificates for such Securities):

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES. THESE SECURITIES AND THE SECURITIES ISSUABLE UPON EXERCISE OF THESE SECURITIES MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED, TRANSFERRED OR ASSIGNED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER APPLICABLE SECURITIES LAWS, OR UNLESS OFFERED, SOLD, PLEDGED, HYPOTHECATED OR TRANSFERRED PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THOSE LAWS. THE COMPANY SHALL BE ENTITLED TO REQUIRE AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED TO THE EXTENT THAT SUCH OPINION IS REQUIRED PURSUANT TO THAT CERTAIN SECURITIES PURCHASE AGREEMENT UNDER WHICH THE SECURITIES WERE ISSUED.

(b) To the extent the resale of the Shares or Warrant Shares is registered under the Securities Act pursuant to an effective Registration Statement, the Company agrees to promptly (i) authorize the removal of the legend set forth in Section 3.8(a) and any other legend not required by applicable law from such Shares or Warrant Shares and (ii) cause its transfer agent to issue such Shares or Warrant Shares without such legends to the holders thereof by electronic delivery at the applicable balance accounts of the holders or their designees at the Depository Trust Company (“DTC”) within two Business Days after surrender of any stock certificates evidencing such Shares or Warrant Shares or after exercise of the Pre-Funded Warrants, as applicable. With respect to any Shares or Warrant Shares for which restrictive legends are removed pursuant to this Section 3.8(b), the holder thereof agrees to only sell such Shares or Warrant Shares when and as permitted by the effective Registration Statement covering such resale or pursuant to Rule 144 and in accordance with applicable securities laws and regulations.

(c) The Purchaser may request that the Company remove, and the Company agrees to authorize the removal of, any legend from the Shares or Warrant Shares (if outstanding), and shall cause its transfer agent to issue book entry statements without such legend or any other legend to the holder of the applicable Shares or Warrant Shares upon which it is stamped or issue to such holder by electronic delivery at the applicable balance account at DTC, if (i) sold or transferred pursuant to the effective registration statement registering such securities for resale (during such time that such registration statement is effective and not withdrawn or suspended, and only as permitted by such registration statement) or following any sale of such Shares or Warrant Shares pursuant to Rule 144, or (ii) if such Shares or Warrant Shares are eligible for sale under Rule 144 following the expiration of the one-year holding requirement under subparagraphs (b)(1)(i) and (d) thereof (giving effect to any tacking in the case of a proper cashless exercise of the Pre-Funded Warrants) and the Purchaser is not an Affiliate of the Company, in each case following receipt from the Purchaser of an appropriate certification to such effect. Following the time a legend is no longer required for the Shares or Warrant Shares under this Section 3.8(c), the Company will, no later than two (2) Business Days following the delivery by a Purchaser to the Company or the Company’s transfer agent of a legended certificate representing such securities, if applicable, and appropriate certifications that the applicable requirements have been satisfied, deliver or cause to be delivered to such Purchaser such securities that are free from all restrictive and other legends by electronic delivery to such Purchaser’s or its designee’s balance account at DTC.

3.9 Authorization; Enforcement. The Purchaser has the requisite power and authority to enter into this Agreement and to consummate the transactions contemplated hereby. The Purchaser has taken all necessary action to authorize the execution, delivery and performance of this Agreement. Upon the execution and delivery of this Agreement, this Agreement shall constitute a valid and binding obligation of the Purchaser enforceable in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors’ and contracting parties’ rights generally and except as enforceability may be subject to general principles of equity and except as rights to indemnity and contribution may be limited by state or federal securities laws or public policy underlying such laws.

3.10 Residency. Unless the Purchaser has otherwise notified the Company in writing, the Purchaser is a resident of the jurisdiction set forth immediately below such Purchaser’s name on the signature pages hereto.

3.11 Purchaser Status. At the time the Purchaser was offered the Securities, it was, and at the date hereof is, an “accredited investor” as defined in Rule 501(a) of the Securities Act. Such Purchaser has executed and delivered to the Company an Accredited Investor Questionnaire in substantially the form attached hereto as **Exhibit C**, which such Purchaser represents and warrants is true, correct and complete. Neither the Purchaser nor any of its Rule 506(d) Related Parties is a “bad actor” within the meaning of Rule 506(d) of the Securities Act. For purposes of this Agreement, a “**Rule 506(d) Related Party**” shall mean a person or entity covered by the “Bad Actor disqualification” provision of Rule 506(d) of the Securities Act.

3.12 Foreign Purchasers. If any Purchaser is not a United States person (as defined by Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended) or is a U.S. subsidiary or affiliate of a foreign parent company (a “**Foreign Purchaser**”), each such Foreign Purchaser hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Securities or the Warrant Shares or any use of this Agreement, including (a) the legal requirements within its jurisdiction for the purchase of the Securities or the Warrant Shares, (b) any foreign exchange restrictions applicable to such purchase, (c) any government or other consents that may need to be obtained, and (d) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of the Securities or the Warrant Shares. Each Foreign Purchaser further represents that either (i) it does not now, nor will it after the Closing, hold 10% or greater, directly or indirectly, of the voting interest in the Company or (ii) if it does or will, such Foreign Purchaser shall notify the Company and shall provide such information as the Company may reasonably request to comply with state, federal, or local regulations. The Company’s offer and sale and the Foreign Purchaser’s subscription and payment for and continued beneficial ownership of the Securities or the Warrant Shares will not violate any applicable securities or other laws of the Foreign Purchaser’s jurisdiction.

3.13 General Solicitation. Such Purchaser is not purchasing the Securities as a result of any advertisement, article, notice or other communication regarding the Securities published in any newspaper, magazine or similar media or broadcast over television or radio or presented at any seminar or, to the knowledge of such Purchaser, any other general solicitation or general advertisement.

3.14 Brokers and Finders. No Person will have, as a result of the sales of the Securities, including the exercise of the Pre-Funded Warrants, if any, any valid right, interest or claim against or upon the Company or any Purchaser for any commission, fee or other compensation pursuant to any agreement, arrangement or understanding entered into by or on behalf of such Purchaser.

3.15 No Intent to Effect a Change of Control. Such Purchaser has no present intent to effect a “change of control” of the Company as such term is understood under the rules promulgated pursuant to Section 13(d) of the Exchange Act.

ARTICLE 4

COVENANTS

4.1 Reporting Status. The Common Stock is registered under Section 12 of the Exchange Act. During the Registration Period (as defined below), the Company will use reasonable best efforts to timely file all required documents with the SEC. The Company has no present intent to, and will not for so long as a Purchaser holds Registrable Securities, terminate the Company’s status as an issuer required to file reports under the Exchange Act, even if the Exchange Act or the rules or regulations thereunder would permit such termination.

4.2 Expenses. The Company and each Purchaser is liable for, and will pay, its own expenses incurred in connection with the negotiation, preparation, execution and delivery of this Agreement, including, without limitation, attorneys' and consultants' fees and expenses.

4.3 Financial Information. The financial statements of the Company to be included in any documents filed with the SEC will be prepared in accordance with accounting principles generally accepted in the United States, consistently applied (except (a) as may be otherwise indicated in such financial statements or the notes thereto, or (b) in the case of unaudited interim statements, to the extent they may not include footnotes, may be condensed or summary statements or may conform to the SEC's rules and instructions for Quarterly Reports on Form 10-Q), and will fairly present in all material respects the consolidated financial position of the Company and consolidated results of its operations and cash flows as of, and for the periods covered by, such financial statements (subject, in the case of unaudited statements, to normal and recurring year-end audit adjustments).

4.4 Securities Laws Disclosure. No later than the close of market of the Business Day immediately following the date this Agreement is executed, the Company shall issue a press release and/or Current Report on Form 8-K disclosing all material terms of the transactions contemplated by this Agreement. Except as set forth below, no public release or announcement concerning the transactions contemplated hereby shall be issued by the Purchasers without the prior consent of the Company, except as such release or announcement may be required by law or the applicable rules or regulations of any securities exchange or securities market, in which case such Purchaser shall allow the Company reasonable time to comment on such release or announcement in advance of such issuance. Notwithstanding the foregoing, each Purchaser may identify the Company and the value of such Purchaser's security holdings in the Company in accordance with applicable investment reporting and disclosure regulations or internal policies without prior notice to or consent from the Company (including, for the avoidance of doubt, filings pursuant to Sections 13 and 16 of the Exchange Act). The Company shall not include the name of any Purchaser or any Affiliate or investment adviser of such Purchaser in any press release or public announcement (which, for the avoidance of doubt, shall not include any SEC Documents to the extent such disclosure is required by SEC rules and regulations) without the prior written consent of such Purchaser.

4.5 Sales by Purchasers. Each Purchaser will sell any Securities and, if applicable, any Warrant Shares held by it in compliance with applicable prospectus delivery requirements, if any, or otherwise in compliance with the requirements for an exemption from registration under the Securities Act and the rules and regulations promulgated thereunder. No Purchaser will make any sale, transfer or other disposition of the Securities or, if applicable, Warrant Shares in violation of federal or state securities laws.

4.6 Board Observer. During the period commencing on the Closing and ending on the earlier of (i) the occurrence of a Change of Control (as defined below) and (ii) the date that Boehringer Ingelheim International GmbH (together with its Affiliates, "**BI**") holds less than 10% of the Company's Common Stock (which shall be calculated by including in the amount of Common Stock held by BI any Warrant Shares issuable upon exercise of any portion of the Pre-Funded Warrant issued to BI and not yet exercised by BI), then BI shall have the right to designate one (1) natural person, reasonably acceptable to the Company, to be present and participate in a non-voting, observer capacity at all meetings of the board of directors of the Company or any committee thereof, including any telephonic or electronic meetings (such individual, the "**Board Observer**"); *provided*, for the avoidance of doubt, that in no event shall the Board Observer: (i) be deemed to be a member of the board of directors or any committee thereof or (ii) have the right to vote on, consent to or veto any matter, motion or resolution presented to the board of directors or any committee thereof or propose or offer any motions or resolutions to the board of directors or any committee thereof. Any materials that are sent by the Company to the members of the board of directors in their capacity as such shall be sent to the Board Observer substantially simultaneously by means reasonably designed to ensure timely receipt by the Board Observer, and the Company will give the Board Observer

notice of such meetings, by the same means as such notices are delivered to the members of the board of directors and at the same time as notice is provided or delivered to the board of directors; *provided*, that the Board Observer agrees to be subject to the Company's Code of Ethics and Business Conduct and other policies and procedures to the same extent as a member of the board of directors, to hold in confidence and trust, to act in a fiduciary manner with respect to and not to disclose any information provided to or learned by them acting in such capacity, whether in connection with the Board Observer's attendance at meetings of the board of directors or any committee thereof, in connection with the receipt of materials delivered to the board of directors or any committee thereof or otherwise. Notwithstanding the provisions of this Section 4.6, the Company reserves the right to exclude the Board Observer from any meeting of the board of directors, or a portion thereof, and to redact portions of any materials delivered to the Board Observer, where and to the extent that the Company reasonably believes that (i) withholding such information or excluding the Board Observer from attending such meeting of the board of directors, or a portion thereof, is reasonably necessary to preserve attorney-client, work product or similar privilege between the Company, its board of directors or any committee thereof, on the one hand, and its counsel, on the other, with respect to any matter; (ii) withholding such information or excluding the Board Observer from attending such meeting of the board of directors, or a portion thereof, is reasonably necessary to protect trade secrets or to comply with the terms and conditions of confidentiality agreements between the Company and any third parties; (iii) such board materials or any meeting of the board of directors or committee thereof relates directly to the Company's relationship, contractual or otherwise, with BI, or (iv) because the board of directors of the Company has determined in good faith that there exists, with respect to the subject of such deliberation or such information, an actual or potential conflict of interest between BI and the Company. The Board Observer shall use the same degree of care to protect the Company's confidential and proprietary information as BI uses to protect confidential and proprietary information of like nature, but in no circumstances with less than reasonable care. Notwithstanding the foregoing, BI's right to designate the Board Observer shall be suspended for so long as the Board Observer serves as a director on the board of directors of the Company. For the avoidance of doubt, the Board Observer shall not be compensated by the Company in such capacity but may be eligible for reimbursement for reasonable and documented out-of-pocket expenses in accordance with any applicable policy of the Company then in effect, provided, however, that the Board Observer has not been otherwise reimbursed by BI for any such expenses.

4.7 Short Sales and Confidentiality After The Date Hereof. Each Purchaser shall not, and shall cause its Affiliates not to, engage, directly or indirectly, in any transactions in the Company's securities (including, without limitation, any Short Sales involving the Company's securities) during the period from the date hereof until such time as the transactions contemplated by this Agreement are first publicly disclosed as required by and described in Section 4.4 of this Agreement. Each Purchaser, severally and not jointly with the other Purchasers, covenants that until such time as the transactions contemplated by this Agreement are publicly disclosed by the Company as described in Section 4.4 of this Agreement, such Purchaser will maintain the confidentiality of the existence and terms of this transaction and the information included in this Agreement. Notwithstanding the foregoing, in the event that a Purchaser is a multi-managed investment vehicle whereby separate portfolio managers manage separate portions of such Purchaser's assets and the portfolio managers have no direct knowledge of the investment decisions made by the portfolio managers managing other portions of such Purchaser's assets, the representation set forth above shall apply only with respect to the portion of assets managed by the portfolio manager that have knowledge about the financing transaction contemplated by this Agreement.

4.8 Reservation of Common Stock. The Company shall reserve and keep available at all times during which any Pre-Funded Warrant remains exercisable, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue the Warrant Shares upon exercise of the Pre-Funded Warrants in accordance with the terms thereof.

ARTICLE 5
CONDITIONS TO CLOSING

5.1 Conditions to Obligations of the Company. The Company's obligation to complete the purchase and sale of the Securities to be purchased and sold at the Closing and deliver such Securities to each Purchaser is subject to the waiver by the Company or fulfillment as of the Closing Date of the following conditions:

(a) Receipt of Funds. The Company shall have received immediately available funds in the full amount of the Aggregate Purchase Price for the Securities being purchased hereunder as set forth opposite such Purchaser's name on **Exhibit A** hereto.

(b) Representations and Warranties. The representations and warranties made by each Purchaser in Article 3 shall be true and correct in all respects as of the Closing Date.

(c) Covenants. All covenants, agreements and conditions contained in this Agreement to be performed by the Purchasers on or prior to the Closing Date shall have been performed or complied with in all material respects.

(d) Nasdaq Qualification. The Company shall have submitted a Listing of Additional Shares Notification with Nasdaq covering all Shares and Warrant Shares and Nasdaq shall have raised no objection to the consummation of the transactions contemplated hereby.

(e) Absence of Litigation. No proceeding challenging this Agreement or the transactions contemplated hereby, or seeking to prohibit, alter, prevent or materially delay the Closing, shall have been instituted or be pending before any court, arbitrator, governmental body, agency or official.

(f) No Governmental Prohibition. The sale of the Securities by the Company shall not be prohibited by any law or governmental order or regulation.

5.2 Conditions to Purchasers' Obligations at the Closing. Each Purchaser's obligation to complete the purchase and sale of the Securities is subject to the waiver by such Purchaser or fulfillment as of the Closing Date of the following conditions:

(a) Representations and Warranties. The representations and warranties made by the Company in Article 2 shall be true and correct in all material respects as of the Closing Date.

(b) Covenants. All covenants, agreements and conditions contained in this Agreement to be performed by the Company on or prior to the Closing Date shall have been performed or complied with in all material respects.

(c) Blue Sky. The Company shall have obtained all necessary blue sky law permits and qualifications, or secured exemptions therefrom, required by any state or foreign or other jurisdiction for the offer and sale of the Securities.

(d) Transfer Agent Instructions. The Company shall have delivered to its transfer agent irrevocable instructions to issue to such Purchaser or in such nominee name(s) as designated by such Purchaser in writing such number of Shares set forth opposite such Purchaser's name on **Exhibit A** hereto.

(e) Nasdaq Qualification. The Company shall have submitted a Listing of Additional Shares Notification with Nasdaq covering all Shares and Warrant Shares and Nasdaq shall have raised no objection to the consummation of the transactions contemplated hereby.

(f) Absence of Litigation. No proceeding challenging this Agreement or the transactions contemplated hereby, or seeking to prohibit, alter, prevent or materially delay the Closing, shall have been instituted or be pending before any court, arbitrator, governmental body, agency or official.

(g) No Governmental Prohibition. The sale of the Securities by the Company shall not be prohibited by any law or governmental order or regulation.

(h) Absence of Material Adverse Effect. There shall have been no Material Adverse Effect with respect to the Company since the date hereof.

(i) Opinion of Counsel. The Purchasers shall have received an opinion from Cooley LLP, counsel to the Company, dated as of the Closing Date, in form and substance reasonably acceptable to the Purchasers.

(j) Certificate of Secretary. The Company shall have delivered a certificate, executed on behalf of the Company by the Company's Secretary, dated as of the Closing Date, certifying the resolutions adopted by the Board of Directors of the Company approving the transactions contemplated by this Agreement and the issuance of the Securities, certifying the current versions of the Certificate of Incorporation and Bylaws of the Company and certifying as to the signatures and authority of persons signing this Agreement and related documents on behalf of the Company.

(k) Certificate of Officers. The Company shall have delivered a certificate, executed on behalf of the Company by the Company's Chief Executive Officer, President or Chief Financial Officer, dated as of the Closing Date, certifying to the fulfillment of the conditions in this Article 5.

ARTICLE 6 REGISTRATION RIGHTS

6.1 On or before the date that is 45 days after the Closing Date (the "**Filing Date**"), the Company shall file a registration statement covering the resale of the Registrable Securities with the SEC for an offering to be made on a continuous basis pursuant to Rule 415, or if Rule 415 is not available for offers and sales of the Registrable Securities, by such other means of distribution of Registrable Securities as the Holders of a majority of the Registrable Securities may reasonably specify (the "**Initial Registration Statement**"). The Initial Registration Statement shall be on Form S-3 (except if the Company is ineligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form), and the Company shall effect the registration, qualifications or compliances (including, without limitation, the execution of any required undertaking to file post-effective amendments, appropriate qualifications or exemptions under applicable blue sky or other state securities laws and appropriate compliance with applicable securities laws, requirements or regulations) as promptly as possible after the filing thereof, but in any event prior to the date which is 75 days in the event of no review by the SEC, or 95 days in the event of a review by the SEC, after the Closing Date. Notwithstanding anything else herein to the contrary, the Company's obligation to register the Shares and the Warrant Shares shall continue at least until a Registration Statement or Registration Statements covering the resale of all Shares and the Warrant Shares held by Holders are or have become effective and shall not be canceled prior to that time by the fact that any Shares or Warrant Shares become eligible for sale under Rule 144. In the event the SEC informs the Company that all of the Registrable Securities cannot, as a result of the

application of Rule 415, be registered for resale as a secondary offering on a single registration statement, the Company agrees to promptly (a) inform each of the Holders thereof, (b) use its reasonable best efforts to file amendments to the Initial Registration Statement as required by the SEC and/or (c) withdraw the Initial Registration Statement and file a new registration statement (a "**New Registration Statement**"), in either case covering the maximum number of Registrable Securities permitted to be registered by the SEC, on Form S-3 or, if the Company is ineligible to register for resale the Registrable Securities on Form S-3, such other form available to register for resale the Registrable Securities as a secondary offering; *provided, however*, that prior to filing such amendment or New Registration Statement, the Company shall be obligated to use its reasonable best efforts to advocate with the SEC for the registration of all of the Registrable Securities. In the event the Company amends the Initial Registration Statement or files a New Registration Statement, as the case may be, under clauses (b) or (c) above, the Company will use its best efforts to file with the SEC, as promptly as allowed by the SEC, one or more registration statements on Form S-3 or, if the Company is ineligible to register for resale the Registrable Securities on Form S-3, such other form available to register for resale those Registrable Securities that were not registered for resale on the Initial Registration Statement, as amended, or the New Registration Statement (the "**Remainder Registration Statements**"). Notwithstanding any other provision of this Agreement, if the SEC limits the number of Registrable Securities permitted to be registered on a particular Registration Statement (and notwithstanding that the Company used diligent efforts to advocate with the SEC for the registration of all or a greater number of Registrable Securities), any required cutback of Registrable Securities shall be applied to the Purchasers pro rata in accordance with the number of such Registrable Securities sought to be included in such Registration Statement by reference to the amount of Registrable Securities set forth opposite such Purchaser's name on **Exhibit A** (and in the case of a subsequent transfer, the initial Purchaser's transferee) relative to the aggregate amount of all Registrable Securities.

6.2 All Registration Expenses incurred in connection with any registration, qualification, exemption or compliance pursuant to Section 6.1 shall be borne by the Company. All Selling Expenses relating to the sale of securities registered by or on behalf of any Holder shall be borne by such Holder.

6.3 In the case of the registration, qualification, exemption or compliance effected by the Company pursuant to this Agreement, the Company shall, upon reasonable request, inform each Holder as to the status of such registration, qualification, exemption and compliance. At its expense the Company shall:

(a) except for such times as the Company is permitted hereunder to suspend the use of the prospectus forming part of a Registration Statement, use its commercially reasonable efforts to keep such registration, and any qualification, exemption or compliance under state securities laws which the Company determines to obtain, continuously effective with respect to a Holder, and to keep the applicable Registration Statement free of any material misstatements or omissions, until the earlier of the following: (i) the third anniversary of the effective date of the Initial Registration Statement, (ii) the date all Shares and, if applicable, Warrant Shares held by such Holder may be sold under Rule 144 without being subject to any volume, manner of sale or publicly available information requirements or (iii) immediately prior to the closing of a Change of Control. The period of time during which the Company is required hereunder to keep a Registration Statement effective is referred to herein as the "**Registration Period**."

(b) advise the Holders within five (5) Business Days:

(i) when a Registration Statement or any amendment thereto (other than an amendment pursuant to a periodic or current report) has been filed with the SEC and when such Registration Statement or any post-effective amendment thereto has become effective;

(ii) of any request by the SEC for amendments or supplements to any Registration Statement or the prospectus included therein or for additional information;

(iii) of the issuance by the SEC of any stop order suspending the effectiveness of any Registration Statement or the initiation of any proceedings for such purpose; and

(iv) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Registrable Securities included therein for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose.

(c) use its reasonable best efforts to obtain the withdrawal of any order suspending the effectiveness of any Registration Statement as soon as reasonably practicable;

(d) if a Holder so requests in writing, promptly furnish to each such Holder, without charge, at least one copy of each Registration Statement and each post-effective amendment thereto, including financial statements and schedules, and, if explicitly requested, all exhibits in the form filed with the SEC;

(e) during the Registration Period, if a Holder so requests in writing, deliver to each Holder, without charge, (i) one copy of the following documents, other than those documents available via EDGAR: (A) its annual report to its stockholders, if any (which annual report shall contain financial statements audited in accordance with generally accepted accounting principles in the United States of America by a firm of certified public accountants of recognized standing), (B) if not included in substance in its annual report to stockholders, its annual report on Form 10-K (or similar form), (C) its definitive proxy statement with respect to its annual meeting of stockholders, (D) each of its quarterly reports to its stockholders, and, if not included in substance in its quarterly reports to stockholders, its quarterly report on Form 10-Q (or similar form), and (E) a copy of each full Registration Statement (the foregoing, in each case, excluding exhibits); and (ii) if explicitly requested, all exhibits excluded by the parenthetical to the immediately preceding clause (E);

(f) prior to any public offering of Registrable Securities pursuant to any Registration Statement, promptly take such actions as may be necessary to register or qualify or obtain an exemption for offer and sale under the securities or blue sky laws of such United States jurisdictions as any such Holders reasonably request in writing, provided that the Company shall not for any such purpose be required to qualify generally to transact business as a foreign corporation in any jurisdiction where it is not so qualified or to consent to general service of process in any such jurisdiction, and do any and all other acts or things reasonably necessary or advisable to enable the offer and sale in such jurisdictions of the Registrable Securities covered by any such Registration Statement;

(g) upon the occurrence of any event that requires the making of any changes in any Registration Statement or prospectus so that, as of such date, the statements therein are not misleading and do not omit to state a material fact required to be stated therein or necessary to make the statements therein (in the case of a prospectus, in the light of the circumstances under which they were made) not misleading, except for such times as the Company is permitted hereunder to suspend the use of a prospectus forming part of a Registration Statement, the Company shall use its best efforts to as soon as reasonably practicable prepare a post-effective amendment to such Registration Statement or a supplement to the related prospectus, or file any other required document so that, as thereafter delivered to purchasers of the Registrable Securities included therein, such prospectus will not include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading;

(h) use its commercially reasonable efforts to cause all Registrable Securities to be listed on each securities exchange or market, if any, on which the Common Stock is then listed;

(i) use its commercially reasonable efforts to take all other steps necessary to effect the registration of the Registrable Securities contemplated hereby and to enable the Holders to sell Registrable Securities under Rule 144;

(j) provide to each Purchaser and its representatives, if requested, the opportunity to conduct a reasonable inquiry of the Company's financial and other records during normal business hours and make available its officers, directors and employees for questions regarding information which such Purchaser may reasonably request in order to fulfill any due diligence obligation on its part; and

(k) permit counsel for each Purchaser to review any Registration Statement and all amendments and supplements thereto (other than supplements to a Registration Statement on Form S-1 solely for the purpose of incorporating other filings with the SEC into such Registration Statement and other than an amendment to a Registration Statement on Form S-1 or Form S-3 for the purpose of converting such Registration Statement into a Registration Statement on Form S-3), within three (3) Business Days prior to the filing thereof with the SEC;

provided that, in the case of clauses (j) and (k) above, the Company shall not be required (A) to delay the filing of any Registration Statement or any amendment or supplement thereto as a result of any ongoing diligence inquiry by or on behalf of a Holder or to incorporate any comments to any Registration Statement or any amendment or supplement thereto by or on behalf of a Holder if such inquiry or comments would require a delay in the filing of such Registration Statement, amendment or supplement, as the case may be, or (B) to provide, and shall not provide, any Purchaser or its representatives with material, non-public information unless such Purchaser agrees to receive such information and enters into a written confidentiality agreement with the Company in a form reasonably acceptable to the Company.

6.4 The Holders shall have no right to take any action to restrain, enjoin or otherwise delay any registration pursuant to Section 6.1 hereof as a result of any controversy that may arise with respect to the interpretation or implementation of this Agreement.

6.5 (a) To the extent permitted by law, the Company shall indemnify each Holder and each Person controlling such Holder within the meaning of Section 15 of the Securities Act, with respect to which any registration that has been effected pursuant to this Agreement, against all claims, losses, damages and liabilities (or action in respect thereof), including any of the foregoing incurred in settlement of any litigation, commenced or threatened (subject to Section 6.5(c) below), arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any Registration Statement, prospectus, any amendment or supplement thereof, to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in light of the circumstances in which they were made, and will reimburse each Holder and each Person controlling such Holder, for reasonable and documented out-of-pocket expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action as incurred; provided that the Company will not be liable in any such case to the extent that any untrue statement or omission or allegation thereof is made in reliance upon and in conformity with written information furnished to the Company by or on behalf of any Holder for use in preparation of any Registration Statement, prospectus, amendment or supplement; *provided further*, that the Company will not be liable in any such case where the claim, loss, damage or liability arises out of or is related to the failure of any Holder to comply with the covenants and agreements contained in this Agreement respecting sales of Registrable Securities, and except that the foregoing indemnity agreement is subject to the condition that, insofar as it relates to any such untrue statement or alleged untrue statement or omission or alleged omission made in any preliminary prospectus but eliminated or remedied

in the amended prospectus on file with the SEC at the time any Registration Statement becomes effective or in an amended prospectus filed with the SEC pursuant to Rule 424(b) which meets the requirements of Section 10(a) of the Securities Act (each, a “**Final Prospectus**”), such indemnity shall not inure to the benefit of any such Holder or any such controlling Person, if a copy of a Final Prospectus furnished by the Company to the Holder for delivery was not furnished or deemed delivered to the Person asserting the loss, liability, claim or damage at or prior to the time such furnishing is required by the Securities Act and a Final Prospectus would have cured the defect giving rise to such loss, liability, claim or damage.

(b) Each Holder will severally, and not jointly, indemnify the Company, each of its directors and officers, and each Person who controls the Company within the meaning of Section 15 of the Securities Act, against all claims, losses, damages and liabilities (or actions in respect thereof), including any of the foregoing incurred in settlement of any litigation, commenced or threatened (subject to Section 6.5(c) below), arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any Registration Statement, prospectus, or any amendment or supplement thereof, to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in light of the circumstances in which they were made, and will reimburse the Company, such directors and officers, and each Person controlling the Company for reasonable legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action as incurred, in each case to the extent, but only to the extent, that such untrue statement or omission or allegation thereof is made in reliance upon and in conformity with written information furnished to the Company by or on behalf of such Holder for use in preparation of any Registration Statement, prospectus, amendment or supplement; provided that the indemnity shall not apply to the extent that such claim, loss, damage or liability results from the fact that a current copy of a prospectus was not made available to the Person asserting the loss, liability, claim or damage at or prior to the time such furnishing is required by the Securities Act and a Final Prospectus would have cured the defect giving rise to such loss, claim, damage or liability. Notwithstanding the foregoing, a Holder’s aggregate liability pursuant to this subsection (b) and subsection (d) shall be limited to the net amount received by the Holder from the sale of the Registrable Securities.

(c) Each party entitled to indemnification under this Section 6.5 (the “**Indemnified Party**”) shall give notice to the party required to provide indemnification (the “**Indemnifying Party**”) promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party (at its expense) to assume the defense of any such claim or any litigation resulting therefrom, provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be approved by the Indemnified Party (whose approval shall not unreasonably be withheld), and the Indemnified Party may participate in such defense at such Indemnified Party’s expense, and *provided further* that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Agreement, unless such failure is materially prejudicial to the Indemnifying Party in defending such claim or litigation. An Indemnifying Party shall not be liable for any settlement of an action or claim effected without its written consent (which consent will not be unreasonably withheld). No Indemnifying Party, in its defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation.

(d) If the indemnification provided for in this Section 6.5 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any loss, liability, claim, damage or expense referred to therein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party thereunder, shall contribute to the amount paid or payable by such Indemnified Party as a result of such loss, liability, claim, damage or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and of the Indemnified Party on the other in

connection with the statements or omissions which resulted in such loss, liability, claim, damage or expense as well as any other relevant equitable considerations. The relative fault of the Indemnifying Party and of the Indemnified Party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the Indemnifying Party or by the Indemnified Party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

6.6 (a) Each Holder agrees that, upon receipt of any notice from the Company of the happening of any event requiring the preparation of a supplement or amendment to a prospectus relating to Registrable Securities so that, as thereafter delivered to the Holders, such prospectus shall not contain an untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, each Holder will forthwith discontinue disposition of Registrable Securities pursuant to a Registration Statement and prospectus contemplated by Section 6.1 until its receipt of copies of the supplemented or amended prospectus from the Company and, if so directed by the Company, each Holder shall deliver to the Company all copies, other than permanent file copies then in such Holder's possession, of the prospectus covering such Registrable Securities current at the time of receipt of such notice.

(b) Each Holder shall suspend, upon request of the Company, any disposition of Registrable Securities pursuant to any Registration Statement and prospectus contemplated by Section 6.1 during no more than two periods of no more than 30 calendar days each during any 12-month period if and only if the board of directors of the Company determines in good faith that the sale of such Holder's Registrable Securities under any such Registration Statement would be reasonably likely to cause a violation of the Securities Act or Exchange Act.

(c) As a condition to the inclusion of its Registrable Securities, each Holder shall furnish to the Company such information regarding such Holder and the distribution proposed by such Holder as the Company may reasonably request in writing, including completing a Registration Statement Questionnaire in the form provided by the Company, or as shall be required in connection with any registration referred to in this Article 6.

(d) Each Holder hereby covenants with the Company not to make any sale of the Registrable Securities pursuant to a Registration Statement without effectively causing the prospectus delivery requirements under the Securities Act to be satisfied.

(e) At the end of the Registration Period the Holders shall discontinue sales of shares pursuant to any Registration Statement upon receipt of notice from the Company of its intention to remove from registration the shares covered by any such Registration Statement which remain unsold, and such Holders shall notify the Company of the number of shares registered which remain unsold promptly upon receipt of such notice from the Company.

6.7 With a view to making available to the Holders the benefits of certain rules and regulations of the SEC which at any time permit the sale of the Registrable Securities to the public without registration, so long as the Holders still own Registrable Securities (including Warrant Shares issuable upon exercise of any unexercised portion of a Pre-Funded Warrant), the Company shall use best efforts to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144 under the Securities Act, at all times;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the Exchange Act; and

(c) so long as a Holder owns any Registrable Securities, furnish to such Holder, upon any reasonable request, a written statement by the Company as to its compliance with Rule 144 under the Securities Act, and of the Exchange Act, a copy of the most recent annual or quarterly report of the Company, and such other reports and documents of the Company as such Holder may reasonably request in availing itself of any rule or regulation of the SEC allowing a Holder to sell any such securities without registration.

6.8 The rights to cause the Company to register Registrable Securities granted to the Holders by the Company under Section 6.1 may be assigned by a Holder in connection with a transfer by such Holder of all or a portion of its Registrable Securities, *provided, however*, that such transfer must be made at least ten (10) days prior to the Filing Date and that (i) such transfer may otherwise be effected in accordance with applicable securities laws; (ii) such Holder gives prior written notice to the Company at least ten days prior to the Filing Date; and (iii) such transferee agrees to comply with the terms and provisions of this Agreement, and such transfer is otherwise in compliance with this Agreement. Except as specifically permitted by this Section 6.8, the rights of a Holder with respect to Registrable Securities as set out herein shall not be transferable to any other Person, and any attempted transfer shall cause all rights of such Holder therein to be forfeited.

6.9 The rights of any Holder under any provision of this Article 6 may be waived (either generally or in a particular instance, either retroactively or prospectively and either for a specified period of time or indefinitely) or amended by an instrument in writing signed by such Holder.

ARTICLE 7 DEFINITIONS

7.1 “*Affiliate*” means, with respect to any Person, any other Person controlling, controlled by or under direct or indirect common control with such Person (for the purposes of this definition “*control*,” when used with respect to any specified Person, shall mean the power to direct the management and policies of such Person, directly or indirectly, whether through ownership of voting securities, by contract or otherwise; and the terms “*controlling*” and “*controlled*” shall have meanings correlative to the foregoing).

7.2 “*Aggregate Purchase Price*” has the meaning set forth in Section 1.1.

7.3 “*Agreement*” has the meaning set forth in the preamble.

7.4 “*Board Observer*” has the meaning set forth in Section 4.6.

7.5 “*Business Day*” means a day Monday through Friday on which banks are generally open for business in New York City.

7.6 “*Bylaws*” has the meaning set forth in Section 2.3.

7.7 “*Certificate of Incorporation*” has the meaning set forth in Section 2.3.

7.8 “*Change of Control*” means a sale, conveyance or other disposition of all or substantially all of the property or business of the Company (other than to a wholly-owned subsidiary of the Company), or a merger of consolidation with or into any other corporation or other business transaction or series of transactions as a result of which stockholders of the Company immediately prior to the transaction would hold less than a majority of the voting interests of the Company (or successor or parent company thereof) after the transaction; *provided* that a “Change of Control” shall not include any transaction or series of related transaction principally for bona fide equity financing purposes.

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- 7.9 “**Closing**” has the meaning set forth in Section 1.2.
- 7.10 “**Closing Date**” has the meaning set forth in Section 1.2.
- 7.11 “**Common Stock**” means the common stock, par value \$0.0001 per share, of the Company.
- 7.12 “**Company**” means Minerva Neurosciences, Inc.
- 7.13 “**DPA**” has the meaning set forth in Section 2.24.
- 7.14 “**Evaluation Date**” has the meaning set forth in Section 2.7.
- 7.15 “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.
- 7.16 “**Filing Date**” has the meaning set forth in Section 6.1.
- 7.17 “**Final Prospectus**” has the meaning set forth in Section 6.5(a).
- 7.18 “**Financial Statements**” means the financial statements of the Company included in the SEC Documents.
- 7.19 “**Foreign Purchaser**” has the meaning set forth in Section 3.12.
- 7.20 “**Holders**” means any Person holding Registrable Securities or any Person to whom the rights under Article 6 have been transferred in accordance with Section 6.8 hereof.
- 7.21 “**Indemnified Party**” has the meaning set forth in Section 6.5(c).
- 7.22 “**Indemnifying Party**” has the meaning set forth in Section 6.5(c).
- 7.23 “**Initial Registration Statement**” has the meaning set forth in Section 6.1.
- 7.24 “**Intellectual Property**” has the meaning set forth in Section 2.10.
- 7.25 “**Investment Company Act**” has the meaning set forth in Section 2.12.
- 7.26 “**Material Adverse Effect**” means a material adverse effect on (a) the business, operations, assets, prospects or condition (financial or otherwise) of the Company or its Subsidiaries, taken as a whole, (b) the ability of the Company to perform in any material respect on a timely basis its obligations pursuant to the transactions contemplated by this Agreement or (c) the legality, validity or enforceability of this Agreement.
- 7.27 “**Material Agreements**” has the meaning set forth in Section 2.6.
- 7.28 “**Nasdaq**” means The Nasdaq Stock Market LLC.
- 7.29 “**New Registration Statement**” has the meaning set forth in Section 6.1.
- 7.30 “**Offering**” means the private placement of the Securities contemplated by this Agreement.

7.31 “**Person**” means any person, individual, corporation, limited liability company, partnership, trust or other nongovernmental entity or any governmental agency, court, authority or other body (whether foreign, federal, state, local or otherwise).

7.32 “**Pre-Funded Warrants**” has the meaning set forth in Section 1.1.

7.33 “**Preferred Stock**” means the preferred stock, par value \$0.0001 per share, of the Company.

7.34 “**Purchasers**” mean the Purchasers whose names are set forth on the signature pages of this Agreement, and their permitted transferees.

7.35 “**Registrable Securities**” means (i) the Shares and (ii) the Warrant Shares; *provided, however*, that securities shall only be treated as Registrable Securities if and only for so long as they (A) have not been disposed of pursuant to a registration statement declared effective by the SEC, (B) have not been sold in a transaction exempt from the registration and prospectus delivery requirements of the Securities Act so that all transfer restrictions and restrictive legends with respect thereto are removed upon the consummation of such sale, (C) with respect to any Holder, are not all eligible to be sold pursuant to Rule 144 within a three-month period (assuming a cash exercise of the Pre-Funded Warrants) without volume, manner of sale, or publicly available information requirements, or (D) are held by a Holder or a permitted transferee pursuant to Section 6.8; *further provided* that, with respect to a Holder that would beneficially own 10% or more of the outstanding shares of Common Stock (assuming all Warrant Shares underlying the portion of a Pre-Funded Warrant that has not yet been exercised and held by such Holder were outstanding), securities held by such Holder that would otherwise be Registrable Securities shall not be disqualified from being deemed Registrable Securities by the fact that they become eligible for sale under Rule 144.

7.36 “**Registration Expenses**” means all expenses incurred by the Company in complying with Section 6.1 hereof, including, without limitation, all registration, qualification and filing fees, printing expenses, escrow fees, fees and expenses of counsel for the Company, blue sky fees and expenses and the expense of any special audits incident to or required by any such registration (but excluding the fees of legal counsel for any Holder).

7.37 “**Registration Period**” has the meaning set forth in Section 6.3(a).

7.38 “**Registration Statement**” means any one or more registration statements of the Company filed under the Securities Act that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement (including without limitation the Initial Registration Statement, the New Registration Statement and any Remainder Registration Statements) and amendments and supplements to such Registration Statements, including post-effective amendments.

7.39 “**Regulation D**” has the meaning set forth in the Recitals.

7.40 “**Remainder Registration Statements**” has the meaning set forth in Section 6.1.

7.41 “**Rule 144**” means Rule 144 promulgated under the Securities Act, or any successor rule.

7.42 “**Rule 415**” means Rule 415 promulgated under the Securities Act, or any successor rule.

7.43 “**Rule 506(d) Related Party**” has the meaning set forth in Section 3.11.

7.44 “**SEC Documents**” has the meaning set forth in Section 2.6.

7.45 “**SEC**” means the United States Securities and Exchange Commission.

7.46 “**Securities**” has the meaning set forth in Section 1.1.

7.47 “**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations thereunder, or any similar successor statute.

7.48 “**Selling Expenses**” means all selling commissions applicable to the sale of Registrable Securities and all fees and expenses of legal counsel for any Holder.

7.49 “**Shares**” has the meaning set forth in Section 1.1.

7.50 “**Short Sales**” means all “short sales” as defined in Rule 200 of Regulation SHO of the Exchange Act, but shall be deemed to not include the location and/or reservation of borrowable shares of Common Stock.

7.51 “**Subsidiary**” means each of (i) Mind-NRG Sarl, a Swiss company, and (ii) Minerva Neurosciences Securities Corporation, a Massachusetts corporation, both of which are wholly-owned by the Company.

7.52 “**Transaction Documents**” means this Agreement, the Pre-Funded Warrants, all exhibits and schedules thereto and hereto and any other documents or agreements executed in connection with the transactions contemplated hereunder.

7.53 “**Warrant Shares**” has the meaning set forth in Section 2.4

7.54 The terms “**register**,” “**registered**” and “**registration**” refer to the registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of the effectiveness of such registration statement.

ARTICLE 8

GOVERNING LAW; MISCELLANEOUS

8.1 Governing Law; Jurisdiction. This Agreement will be governed by and interpreted in accordance with the laws of the State of New York. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of New York located in New York County and the United States District Court for the Southern District of New York for the purpose of any suits, action, proceeding or judgement relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. To the extent that the Company has or hereafter may acquire any immunity (on the grounds of sovereignty or otherwise) from the jurisdiction of any court or from any legal process with respect to itself or its property, the Company irrevocably waives, to the fullest extent permitted by law, such immunity in respect of any suit, action or proceeding. **TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW, EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS**

AGREEMENT OR THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

8.2 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signatures complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

8.3 Headings. The headings of this Agreement are for convenience of reference only, are not part of this Agreement and do not affect its interpretation.

8.4 Severability. If any provision of this Agreement is invalid or unenforceable under any applicable statute or rule of law, then such provision will be deemed modified in order to conform with such statute or rule of law. Any provision hereof that may prove invalid or unenforceable under any law will not affect the validity or enforceability of any other provision hereof.

8.5 Entire Agreement; Amendments. This Agreement (including all schedules and exhibits hereto) constitutes the entire agreement among the parties hereto with respect to the subject matter hereof and thereof. There are no restrictions, promises, warranties or undertakings, other than those set forth or referred to herein or therein. This Agreement supersedes all prior agreements and understandings among the parties hereto with respect to the subject matter hereof. This Agreement and any provision hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the Company and the Purchaser to be charged with enforcement of such modification, amendment or waiver. Any amendment or waiver by a party effected in accordance with this Section 8.5 shall be binding upon the applicable Purchaser, including with respect to any Securities purchased under this Agreement or Warrant Shares at the time outstanding and held by such party (including securities into which such Securities are convertible and for which such Securities are exercisable) and each future holder of all such Securities.

8.6 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed email, telex or facsimile if sent during normal business hours of the recipient, if not, then on the next Business Day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) Business Day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. The addresses for such communications are:

If to the Company:

Minerva Neurosciences, Inc.
1500 District Avenue
Burlington, MA 01803
Attention: Remy Luthringer

With a copy to:

Cooley LLP
500 Boylston St., 14th Floor
Boston, MA 02116
Attention: Ryan Sansom

If to a Purchaser: To the address set forth immediately below such Purchaser's name on the signature pages hereto. Each party will provide ten (10) days' advance written notice to the other parties of any change in its address.

8.7 Successors and Assigns. This Agreement is binding upon and inures to the benefit of the parties and their successors and assigns. The Company will not assign this Agreement or any rights or obligations hereunder without the prior written consent of the Purchasers, and no Purchaser may assign this Agreement or any rights or obligations hereunder without the prior written consent of the Company, except as permitted in accordance with Section 6.8 hereof.

8.8 Third Party Beneficiaries. This Agreement is intended for the benefit of the parties hereto, their respective permitted successors and assigns, and is not for the benefit of, nor may any provision hereof be enforced by, any other Person.

8.9 Further Assurances. Each party will do and perform, or cause to be done and performed, all such further acts and things, and will execute and deliver all other agreements, certificates, instruments and documents, as another party may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

8.10 No Strict Construction. The language used in this Agreement is deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

8.11 Equitable Relief. The Company recognizes that, if it fails to perform or discharge any of its obligations under this Agreement, any remedy at law may prove to be inadequate relief to the Purchasers. The Company therefore agrees that the Purchasers are entitled to seek temporary and permanent injunctive relief in any such case. Each Purchaser also recognizes that, if it fails to perform or discharge any of its obligations under this Agreement, any remedy at law may prove to be inadequate relief to the Company. Each Purchaser therefore agrees that the Company is entitled to seek temporary and permanent injunctive relief in any such case.

8.12 Independent Nature of Purchasers' Obligations and Rights. The obligations of each Purchaser under this Agreement are several and not joint with the obligations of any other Purchaser, and no Purchaser shall be responsible in any way for the performance of the obligations of any other Purchaser under this Agreement. Nothing contained herein and no action taken by any Purchaser pursuant thereto, shall be deemed to constitute the Purchasers as a partnership, an association, a joint venture or any other kind of entity, or create a presumption that the Purchasers are in any way acting in concert or as a group, or are deemed Affiliates with respect to such obligations or the transactions contemplated by this Agreement. Each Purchaser shall be entitled to independently protect and enforce its rights, including without limitation the rights arising out of this Agreement, and it shall not be necessary for any other Purchaser to be joined as an additional party in any proceeding for such purpose.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has caused this SECURITIES PURCHASE AGREEMENT to be duly executed as of the date first above written.

MINERVA NEUROSCIENCES, INC.

By: /s/ Geoffrey Race
Name: Geoffrey Race
Title: President

IN WITNESS WHEREOF, the undersigned has caused this SECURITIES PURCHASE AGREEMENT to be duly executed as of the date first above written.

PURCHASER:

Boehringer Ingelheim International GmbH

By: /s/ Frank Hübler

Name: Frank Hübler

Title: Head of Fin., Acc., Contr. & Tax

By: /s/ Martin Schwarz

Name: Dr. Martin Schwarz

Title: General Counsel

Address for Notice:

Boehringer Ingelheim International GmbH

Binger Straße 173

55216 Ingelheim am Rhein Germany

Telephone No.: _____

E-mail Address: _____

Attention: _____

IN WITNESS WHEREOF, the undersigned has caused this **SECURITIES PURCHASE AGREEMENT** to be duly executed as of the date first above written.

PURCHASER:

**Federated Hermes Kaufmann Small Cap Fund,
a Portfolio of Federated Hermes Equity Funds**

By: /s/ Stephen Van Meter

Name: Stephen Van Meter

Title: Senior Vice President and Chief Compliance Officer

Address for Notice:

4000 Ericsson Drive

Warrendale, PA 15086-7561

E-mail Address: _____

Attention: _____

IN WITNESS WHEREOF, the undersigned has caused this SECURITIES PURCHASE AGREEMENT to be duly executed as of the date first above written.

PURCHASER:

**Federated Hermes Kaufmann Fund, a Portfolio of
Federated Hermes Equity Funds**

By: /s/ Stephen Van Meter

Name: Stephen Van Meter

Title: Senior Vice President and Chief Compliance Officer

Address for Notice:

4000 Ericsson Drive

Warrendale, PA 15086-7561

E-mail Address: _____

Attention: _____

IN WITNESS WHEREOF, the undersigned has caused this SECURITIES PURCHASE AGREEMENT to be duly executed as of the date first above written.

PURCHASER:

**Federated Hermes Kaufmann Fund II, a Portfolio of
Federated Hermes Insurance Series**

By: /s/ Stephen Van Meter

Name: Stephen Van Meter

Title: Senior Vice President and Chief Compliance Officer

Address for Notice:

4000 Ericsson Drive

Warrendale, PA 15086-7561

E-mail Address: _____

Attention: _____

EXHIBIT A
SCHEDULE OF PURCHASERS

| <u>Purchaser</u> | <u>Number of Shares</u> | <u>Number of Warrant Shares Underlying Pre-Funded Warrant</u> | <u>Aggregate Purchase Price</u> |
|------------------|-----------------------------|---|-------------------------------------|
|------------------|-----------------------------|---|-------------------------------------|

EXHIBIT B
FORM OF PRE-FUNDED WARRANT

EXHIBIT C
ACCREDITED INVESTOR QUESTIONNAIRE



Minerva Neurosciences Announces \$20 Million in Private Placement Priced at a Premium to Market

BURLINGTON, Mass., – June 28, 2023 (GLOBE NEWSWIRE) – Minerva Neurosciences, Inc. (Nasdaq: NERV), a clinical-stage biopharmaceutical company focused on the development of therapies to treat central nervous system disorders, today announced that it has agreed to sell an aggregate of 1,425,000 shares of its common stock at a purchase price of \$10 per share and pre-funded warrants to purchase an aggregate of 575,575 shares of its common stock at a purchase price of \$9.99 per pre-funded warrant, to Boehringer Ingelheim, a global biopharmaceutical company with a growing mental health pipeline that includes schizophrenia, and Federated Hermes Kaufmann Funds in a private investment in public equity (the “PIPE”) financing. Minerva expects that the gross proceeds from the PIPE will be approximately \$20 million, before deducting PIPE-related expenses payable by Minerva. Minerva intends to use the net proceeds from the PIPE to support potential regulatory approval in the U.S., commercialization activities and market launch of roluperidone, which is being developed for the treatment of negative symptoms in schizophrenia.

The PIPE is expected to close on or about June 30, 2023, subject to the satisfaction of customary closing conditions. Under the terms of the PIPE, Boehringer Ingelheim will have the right to designate one individual to attend all meetings of Minerva’s board of directors or any committee thereof in a non-voting, observer capacity.

The securities to be sold in the PIPE are being offered in a transaction not involving a public offering and have not been registered under the Securities Act of 1933, as amended (the “Act”), and may not be offered or sold in the United States except pursuant to an effective registration statement or an applicable exemption from the Act. The Company has agreed to file a resale registration statement with the U.S. Securities and Exchange Commission (SEC) for purposes of registering the resale of the common stock to be issued in the PIPE, including the shares of common stock underlying the pre-funded warrants.

This press release shall not constitute an offer to sell or a solicitation of an offer to buy these securities, nor shall there be any sale of these securities in any state or other jurisdiction in which such offer, solicitation or sale would be unlawful prior to the registration or qualification under the securities laws of any such state or other jurisdiction.

About Minerva Neurosciences

Minerva Neurosciences, Inc. (Nasdaq: NERV) is a clinical-stage biopharmaceutical company focused on developing product candidates to treat central nervous system (CNS) diseases. Minerva’s goal is to transform the lives of patients with improved therapeutic options. Minerva’s portfolio of compounds includes roluperidone (MIN-101), for negative symptoms of schizophrenia, and MIN-301, for Parkinson’s disease.

Forward-Looking Safe Harbor Statement

This press release contains forward-looking statements which are subject to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts, reflect management's expectations as of the date of this press release, and involve certain risks and uncertainties. Forward-looking statements include, but are not limited to, statements herein with respect to the regulatory progress of roluperidone and the timing, use of proceeds and closing of the PIPE. These forward-looking statements are based on our current expectations and may differ materially from actual results due to a variety of factors including, without limitation, the risk that the conditions to the closing of the proposed PIPE are not satisfied; whether the FDA may meet expected review timelines for Minerva's NDA; whether roluperidone will be successfully marketed if approved; management's ability to successfully achieve its goals; Minerva's ability to raise additional capital to fund its operations and corporate objectives on terms acceptable to Minerva; general economic conditions; and other factors that are described under the caption "Risk Factors" in Minerva's filings with the Securities and Exchange Commission, including its Annual Report on Form 10-K for the year ended December 31, 2022, filed with the Securities and Exchange Commission on March 8, 2023, as updated by its Quarterly Report on Form 10-Q for the quarter ended March 31, 2023. Copies of reports filed with the SEC are posted on Minerva's website at <http://ir.minervaneurosciences.com/>. The forward-looking statements in this press release are based on information available to Minerva as of the date hereof, and Minerva disclaims any obligation to update any forward-looking statements, except as required by law.

Contact:**Investor inquiries:**

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