

**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): November 14, 2023

MIRA PHARMACEUTICALS, INC.
(Exact Name of Registrant as Specified in its Charter)

Florida
(State or Other Jurisdiction
of Incorporation)

001-41765
(Commission
File Number)

85-3354547
(IRS Employer
Identification No.)

855 N Wolfe Street, Suite 601
Baltimore, Maryland
(Address of Principal Executive Offices)

21205
(Zip Code)

Registrant's telephone number, including area code: (737) 289-0835

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
Common Stock, \$0.0001 par value per share

Trading Symbol(s)
MIRA

Name of each exchange on which registered
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.

Exclusive License Agreement with MIRALOGX, LLC

On November 15, 2023 (the "Effective Date"), MIRA Pharmaceuticals, Inc. (the "Company") and MIRALOGX, LLC, a Florida limited liability company ("MIRALOGX"), entered into an exclusive license agreement (the "License Agreement") to develop and commercialize a drug product containing 2-(2-chlorophenyl)-2-(methylamino) cyclopentan-1-one (sometimes referred to by the Parties as "M209" or "KETAMIR-2") ("the Product") as an active agent in North America. (the "Territory"). The exclusive license in the License Agreement includes the right of the Company to sublicense the licensed intellectual property.

Pursuant to the terms of the License Agreement, and subject to the conditions set forth therein, the Company paid MIRALOGX a one-time, nonrefundable payment of \$100,000 upon the signing of the Agreement and will be obligated to pay quarterly royalty payments on sales of the Product in the Territory of 8% of net sales and 8% of other revenue (such as milestone or sublicense payments) from licensed products.

Also, in consideration of License Agreement, the Company issued to MIRALOGX a Common Stock Purchase Warrant to purchase up to 700,000 shares of the Company's common stock (the "MIRALOGX Warrants"). The MIRALOGX Warrants are exercisable, in whole or in part, any time prior to November 15, 2028 at a cash exercise price of \$2.00 per share.

The Company and MIRALOGX have made customary representations and warranties in the License Agreement and have agreed to certain other customary covenants, including confidentiality, cooperation, and indemnity provisions.

Either party may terminate the License Agreement for cause if the other party materially breaches or defaults in the performance of its obligations, and, if curable, such material breach remains uncured for 120 days. Unless earlier terminated, the License Agreement will continue in effect until the last to expire of the Patent Rights (the "Term"), unless earlier terminated.

MIRALOGX Promissory Note and Loan Agreement

On November 15, 2023, the Company entered into a Promissory Note and Loan Agreement (the "Loan Agreement") with MIRALOGX.

Pursuant to the Loan Agreement, the Company may borrow up to \$3.0 million from MIRALOGX to fund the development of licensed products under the License Agreement (the "Loan").

Together with any Advance Request, the Company shall deliver to the Lender a budget for the requested Advance (the "Budget"). The Budget may only include costs directly associated with preparing an Investigational New Drug ("IND") application for KETAMIR-2, exclusive of personnel costs. Any Advances made by the Lender to the Company pursuant to this Note may be repaid by the Company (together with any and all interest accrued thereon) at any time without penalty or premium in accordance with the terms hereof. Amounts repaid hereunder may not be reborrowed.

The Loan Agreement has a one-year term, and all outstanding principal and accrued but unpaid interest must be repaid in full on November 15, 2023. Interest on the amounts borrowed under the Loan Agreement accrues at an annual fixed rate of 8%. The Company may prepay all or a portion of the outstanding principal and accrued unpaid interest under the Loan Agreement at any time without a prepayment fee.

The foregoing descriptions of the License Agreement, MIRALOGX Warrant agreement, and Loan Agreement (the "Agreements") are only a summary of their respective material terms and do not purport to be complete. Copies of the License Agreement, MIRALOGX Warrant agreement, and the Loan Agreement are attached as Exhibits 10.1, 10.2 and 10.3, respectively to this Current Report on Form 8-K and are incorporated herein by reference. The Agreements are not intended to be a source of factual, business or operational information about the Company. The representations and warranties contained in the Agreements were made only for purposes of such agreement and as of specific dates, were solely for the benefit of the parties to the Agreements, and may be subject to limitations agreed upon by the parties, including being qualified by disclosures for the purpose of allocating contractual risk between the parties instead of establishing matters as facts; and may be subject to standards of materiality applicable to the contracting parties that differ from those applicable to investors or security holders. Accordingly, investors should not rely on the representations, warranties and covenants or any descriptions thereof as characterizations of the actual state of facts or condition of the parties.

Item 2.03. Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

The information set forth in Item 1.01 above with respect to the Loan Agreement is incorporated herein by reference.

Item 3.02. Unregistered Sales of Securities.

The information set forth under Item 1.01 above is incorporated herein by reference. The MIRALOGX Warrants were issued, and the common stock to be issued to MIRALOGX upon the exercise of the MIRALOGX Warrants be issued, solely to "accredited investors," as such term is defined in the Securities Act of 1933, as amended (the "Securities Act") and in reliance on the exemption from registration afforded by Section 4(a)(2) and Regulation D (Rule 506) under the Securities Act and corresponding provisions of state securities laws. Accordingly, the issuance of such securities was not and is not registered under the Securities Act, and until registered, these securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration.

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Appointment of Director

On November 14, 2023, the Board of Directors of the Company increased the number of directors on the Board from 7 directors to 8 directors and unanimously approved the election and appointment of Mr. Michael Jerman to the Board. Mr. Jerman was concurrently appointed as a member of the Audit Committee of the Board and as a member of the Compensation Committee of the Board.

Mr. Jerman, age 57, has served as the managing partner at Hollywell Partners, a professional accounting and finance consulting firm, since May 2019, and has provided chief financial officer and other services to multiple private equity-backed companies in the energy, SaaS, and manufacturing industries. Prior to his role with Hollywell Partners, he was a Director with PwC in the US and UK from January 2007 to August of 2019 and was a Captain with the United States Air Force from July 2003 to June 2015. He has led global public and private client engagements in the industries of retail and consumer, energy, utilities and mining, and transportation and logistics. Mr. Jerman has significant experience in client equity and debt offerings, business combinations inclusive of public listing and reporting requirements, initial valuations and ongoing goodwill impairment analyses, share-based awards, restructuring, and global taxes, as well as stakeholder management, specifically with board and management presentation experience to include annual and quarterly requirements, fee negotiations, technical accounting and finance discussions, and fraud and non-compliance investigations. Mr. Jerman has specialized in rapid project mobilization and deployment of skilled resources for emergency issues, design, and implementation of small to large scale assurance requirements and advisory projects. Mr. Jerman's additional experience includes leading PwC's data acquisition methods and tools, client acquisitions and systems implementations to include new SOX-compliant control plan implementations across multiple systems, leading co-sourced internal audit projects, and time spent driving PwC's lean efficiency initiatives. Mr. Jerman was a member of the PwC national office within the SEC PCAOB quality group supporting Europe and the EMEA regions with complex accounting and audit consultations. Mr. Jerman also serves as a member of the board of directors of Inhibitor Therapeutics, Inc. (OTC:INTI). He earned a B.S. in accounting from the University of South Florida, an M.S. in accounting from the University of Tampa, and an M.B.A. from the University of Oxford.

There are no family relationships between Mr. Jerman and any director or executive officer of the Company, and he does not have any direct or indirect material interest in any transaction required to be disclosed pursuant to Item 404(a) of Regulation S-K.

Item 7.01 Regulation FD Disclosure.

On November 20, 2023, the Company issued a press release announcing the execution of the License Agreement. A copy of the press release is attached as Exhibit 99.1 hereto.

The information set forth under Item 7.01 and in Exhibit 99.1 is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the

Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

- 10.1 [Exclusive License Agreement, by and between the Company and MIRALOGX, dated as of November 30, 2023.](#)
 - 10.2 [Common Stock Purchase Warrant from the Company to MIRALOGX, dated November 15, 2023.](#)
 - 10.3 [Promissory Note and Loan Agreement, by and between the Company and MIRALOGX, dated as of November 15, 2023.](#)
 - 99.1 [Press release, dated November 20, 2023, announcing the License Agreement between the Company and MIRALOGX.](#)
 - 104 Cover Page Interactive Data File (embedded within the Inline XBRL document)
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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.

MIRA PHARMACEUTICALS, INC.

Date, November 20, 2023

By: /s/ Michelle Yanez
Michelle Yanez
Chief Financial Officer

EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT (this “Agreement”) is entered into as of November 15, 2023 (the “Effective Date”), by and between MIRALOGX LLC, a Florida limited liability company located at 900 West Platt St., Suite 200, Tampa, FL 33606 (“Licensor”), and MIRA PHARMACEUTICALS, INC., a Florida corporation having its principal place of business at 855 N. Wolfe St., Suite 601, Baltimore, MD 21205 (“Licensee”). Licensor and Licensee are each herein referred to as “Party” and collectively as the “Parties.”

WHEREAS, Licensor is the owner of all right, title, and interest in and to intellectual property pertaining to certain antidepressant compounds and associated pharmaceutical formulations and therapeutic treatment methods; and

WHEREAS, Licensee is a life sciences company focused on the development of MIRA1a, a novel synthetic THC analog, to treat anxiety and cognitive decline in the elderly and neuropathic pain without impurities or the negative side effects associated with cannabis plant extracts. Licensee now desires to develop a drug product containing 2-(2-chlorophenyl)-2-(methylamino)cyclopentan-1-one (sometimes referred to by the Parties as “M209” or “KETAMIR-2”) as an active agent.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE 1—DEFINITIONS

1.1 “Licensed Product” shall mean a drug product containing as an active agent 2-(2-chlorophenyl)-2-(methylamino)cyclopentan-1-one or a pharmaceutically acceptable salt or ester thereof.

1.2 “Patent Rights” shall mean the patent applications listed on the attached Schedule A and all patents, continuations, continuations-in-part, divisionals, reissues, substitutes, and reexamination certificates claiming priority therefrom, to the extent they cover Licensed Products.

1.3 “Licensed Territory” shall mean the United States, Canada, and Mexico.

1.4 “Sublicensee” shall mean any entity, whether a partnership, firm, company, corporation or otherwise to which Licensee grants a sublicense under the Patent Rights.

1.5 “Net Sales Price” shall mean the invoice price for Licensed Products sold in arm’s length sales or commercial transactions to a third party by Licensee, its affiliates, or any third party which acquired ownership of any Licensed Product from Licensee, less deductions for taxes, duties, and shipping charges separately stated on the invoice.

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1.6 “Revenue” shall mean any and all revenue received for a Licensed Product, including but not limited to, revenue or royalties from sales of Licensed Products, upfront revenue, milestone revenue, royalty income (e.g., running royalty or minimum royalty), and license fees.

1.7 “Valid Claim” shall mean a claim in an unexpired Letters Patent under the Patent Rights which has not been held invalid or unenforceable by a court or tribunal of competent jurisdiction from which no further appeal can be taken or has been taken within the required time period.

1.8 “Field of Use” shall mean therapeutic treatments and other medical or health uses in humans and preclinical studies and activities of any kind conducted in furtherance of obtaining regulatory approval for or commercialization of human therapeutic treatments and uses. Except as required for obtaining regulatory approval for or commercialization of human therapeutic treatments and uses, Field of Use shall not include veterinary uses.

1.9 “Project Inventions” shall mean any and all new discoveries, concepts, ideas, proprietary material, developments, specifications, methods, drawings, designs, flow charts, diagrams, models, formulae, procedures, processes, schematics, specifications, algorithms, apparatus, inventions, ideas, know-how, materials, techniques, methodologies, modifications, improvements, works of authorship and data (whether or not protectable under patent, copyright, trade secrecy or similar laws and whether or not patentable or reduced to practice), know-how, materials, methods, models, procedures, processes, schematics, specifications, techniques, tools, and any other forms of technology that are conceived, created, discovered, developed, generated, made or reduced to practice or tangible medium of expression during the performance of this Agreement.

1.10 “Confidential Information” shall mean any scientific, technical, trade or business information possessed, obtained by, developed for or given to the other Party which is treated by the disclosing party as confidential or proprietary including, without limitation, proprietary material, research results, research materials and developments, formulations, techniques, methodology, assay systems, formulae, procedures, tests, equipment, data, reports, know-how, sources of supply, patent positioning, relationships with consultants and employees, business plans and business developments, information concerning the existence, scope or activities of any research, development, manufacturing, marketing or other projects of either Party, and any other confidential information about or belonging to either Party’s suppliers, licensors, licensees, partners, affiliates, customers, potential customers or others. All information of a confidential or proprietary nature supplied in written, electronic, oral or visual form pursuant to this Agreement shall be considered as being Confidential Information.

1.11 “Mark” shall mean the word mark “KETAMIR” which was coined by Licensor and in which Licensor holds or may hold certain common law trademark rights.

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ARTICLE 2—COSTS, ROYALTY PAYMENTS AND REPORTS

2.1 **Cost Reimbursement.** Licensee shall pay to Licensor a one-time, nonrefundable payment of one hundred thousand dollars (\$100,000) upon the signing of this Agreement to account for already incurred costs of Licensor in filing the patent applications listed on Schedule A, and Licensee shall deliver to Licensor a Common Stock Purchase Warrant to purchase up to 700,000 shares of Licensee common stock for a period of five years.

2.2 **Royalties.** Licensee agrees to pay to Licensor eight percent (8.0%) of the following consideration actually received in the aggregate by Licensee:

(i) Net Sales Price; and

(ii) Revenue, excluding any commercial sales accounted for in the Net Sales Price (collectively, (i) and (ii) being the “Royalties”), where the term “milestone revenue” as used in Section 1.5 (Revenue) refers to consideration paid to Licensee, by any third party, upon the first achievement of any developmental or regulatory approval event as to all Licensed Product(s).

2.3 **Sublicensees.** To the extent Licensee grants a sublicense to any third party, and receives Revenue therefrom, then Licensee agrees to pay to Licensor eight percent (8.0%) of Revenue received in the aggregate by Licensee from all such sublicensees, to the extent such Revenue has not been accounted for in Section 2.2(ii). For clarity,

Licensee will owe at most eight percent (8.0%) of all consideration collectively received from all commercial sales and all third parties under all sections of this Article 2.

2.4 Term of Royalty Obligations. The Royalties specified in Section 2.2 shall commence on the Effective Date, and shall continue, in each applicable country on a product-by-product and country-by-country basis until the date of expiration of the last to expire of the Patent Rights (“Term”).

2.5 Payments of Royalties. Royalties shall be paid no later than sixty (60) days following the end of the calendar quarter during which Licensed Products are sold and invoiced, or Revenues are received.

2.6 Place of Payment. Licensee agrees to pay the respective amounts contemplated by Article 2 to Licensor at the respective addresses listed hereinabove, or at such other places as Licensor may specify from time to time, in United States dollars and through a United States bank as designated by Licensor.

2.7 No Double Royalties. No royalty shall be paid twice on a Licensed Product.

2.8 Interest. All undisputed payments due hereunder that are not paid when due and payable as specified in this Agreement shall bear interest at an accrual rate equal to the prime rate for U.S. dollar deposits in effect from time to time, as published daily in the Wall Street Journal plus 2%, compounded monthly from the date due until paid, or at such lower rate of interest as shall then be the maximum rate permitted by applicable law.

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2.9 Right to Documentation. Upon request once a calendar year, Licensor shall have the right to request reasonable documentation of Licensee’s calculations to determine Royalties and to request discussion of such calculations with appropriate representatives of Licensee.

2.10 Records Retention and Audits. Licensee agrees to keep true and accurate records, files, and books of account containing all the data reasonably required for the full computation and verification of the Royalties to be paid in Article 2 hereof, and Licensee further agrees to permit its books and records to be examined once a calendar year to the extent necessary to verify such Royalties, such examination to be made at the expense of Licensor by any auditor appointed by Licensor who shall be acceptable to Licensee, or by a certified public accountant appointed by Licensor; provided that only those Royalties paid by Licensee within the two (2) year period immediately preceding the start of the audit, and their supporting records, files, and books of account will be subject to audit.

ARTICLE 3—GRANT OF LICENSE AND RIGHT TO SUBLICENSE

3.1 Grant of Exclusive License. In consideration of and subject to payment of the costs and royalties under Article 2 hereof, Licensor hereby grants to Licensee and its subsidiaries an exclusive license under the Patent Rights to make, have made, use, offer for sale, sell, import and export Licensed Products solely in the Licensed Territory and solely in the Field of Use during the Term of Agreement.

3.2 Grant of Non-exclusive License. In consideration of and subject to payment of the costs and royalties under Article 2 hereof, Licensor further grants to Licensee and its subsidiaries a non-exclusive license to manufacture Licensed Products outside the Licensed Territory solely for importation into the Licensed Territory and solely in the Field of Use during the Term of Agreement.

3.3 Right to Sublicense. The licenses granted in Sections 3.1 and 3.2 include the right of Licensee and its subsidiaries to grant corresponding Sublicenses to third parties during the Term of Agreement.

3.4 Trademark License. In consideration of and subject to payment of the costs and royalties under Article 2 hereof, Licensor hereby grants to Licensee and its subsidiaries an exclusive license to use the Mark solely in the Licensed Territory and solely in the Field of Use, and only in association with the Licensed Products during the Term of Agreement.

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ARTICLE 4—PATENT MARKING

4.1 Patent Marking. Licensee agrees that all Licensed Products sold by Licensee, its subsidiaries, or Sublicensees will be legibly marked with the number of any applicable patent(s) licensed hereunder as part of the Patent Rights in accordance with each country’s patent marking laws, or if such marking is not practicable, shall so mark the accompanying outer box or product insert for Licensed Products accordingly, or by virtual marking to the extent permitted by applicable law.

ARTICLE 5—PATENT ENFORCEMENT

5.1 IP Enforcement. Licensee shall have the primary right, but not the obligation, to take action in its own name to secure the cessation of any infringement or misappropriation or to enter suit against the infringer in the Licensed Territory and in the Field of Use. Any such action will be at Licensee’s expense, employing counsel of its own choosing. If Licensee elects not to exercise its right to prosecute or take other appropriate action in connection with an infringement or misappropriation of the Patent Rights or fails to take any such action within sixty (60) days of first receiving notice of such infringement or misappropriation, Licensor may do so at its own expense, controlling such action. In the event of any infringement or misappropriation suit against a third party brought by either Party pursuant to this Section, the Party so proceeding shall pay to the other Party all of its costs and expenses (but not attorney’s fees) in connection with such action and such other Party shall join in and reasonably cooperate with respect to such action to the extent necessary to initiate and maintain it (e.g., by providing relevant documents, witnesses and testimony, etc.). Whichever Party exercises its right to take action in its own name to secure the cessation of any infringement or misappropriation or to enter suit against an infringer shall be entitled to any applicable damages award, including any settlement payment, received as a result of taking action.

ARTICLE 6—PATENT PROSECUTION

6.1 IP Procurement. Licensor will have sole control over the filing, prosecution, maintenance, and management of any and all issued patents and pending and future patent applications encompassing the Patent Rights, as of the Effective Date of this Agreement; provided that Licensee will identify in writing to Licensor countries in the Licensed Territory (“Identified Countries”) in which to file, prosecute, and/or maintain patent applications or patents of the Patent Rights. Licensor will select all outside counsel for prosecution of the Patent Rights and such counsel will represent Licensor in such prosecution. Licensor will keep Licensee fully informed, at Licensee’s expense, of all prosecution related actions, including submitting to Licensee copies of all official actions and responses, and will reasonably cooperate with Licensee to whatever extent is reasonably necessary to provide Licensee the full benefit of the license granted herein. Each party will promptly inform the other as to all matters that come to its attention that may affect the preparation, filing, prosecution, or maintenance of the Patent Rights and permit a reasonable amount of time for each other to provide comments and suggestions with respect to the preparation, filing, and prosecution of Patent Rights, which comments and suggestions will be considered by the other party.

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6.2 Reimbursement of Prosecution Costs. In addition to the payment of Section 2.1, Licensee shall reimburse Licensor for expenses as Licensor incurs those expenses relating to the preparation, filing, prosecution and maintenance of the Patent Rights in the Licensed Territory for so long as the Agreement remains in effect. All payments due

pursuant to this Section 6.2 shall be made within sixty (60) days of Licensor's delivery of an invoice for such charges.

6.3. Licensor Patents. If Licensor desires to cease maintaining any patent falling within the Patent Rights, it shall give Licensee not less than forty-five (45) days' prior written notice of such intention. The notice shall identify the patent in question, the fees or steps needed and the time by which they must be paid or taken. Licensee shall then have the right, but not the obligation, within thirty (30) days of receiving such notice, to elect by written notice to take over ownership and maintenance itself at its cost; thereafter, Licensor shall enter into an assignment of that patent or application and all rights thereunder to Licensee.

6.4 Licensor Patent Applications. If Licensor desires to abandon the prosecution of any patent application falling within the Patent Rights in the Licensed Territory, it shall give Licensee written notice of such intention not less than forty-five (45) days prior to the applicable fee payment or abandonment deadline. The notice shall identify the application in question, the fees or steps needed and the time by which they must be paid or taken. Licensee shall then have the right, but not the obligation, within thirty (30) days of receiving such notice, to elect by written notice to take over ownership and prosecution at its cost; thereafter, Licensor shall enter into an assignment of that patent application and all rights thereunder to Licensee.

ARTICLE 7—PRODUCT DEVELOPMENT AND COMMERCIALY REASONABLE EFFORTS

7.1 Product Development. Licensee acknowledges that it will be solely responsible for clinical development of the Licensed Product and, if commercially feasible, commercialization of the Licensed Product, including obtaining all regulatory approvals.

7.2 Commercially Reasonable Efforts. Licensee shall take such steps as are commercially reasonable to further the clinical development of the Licensed Product and to bring the Licensed Product to practical application within the Field of Use, provided that Licensee reasonably believes that the Licensed Product is safe and effective as determined by successfully meeting its predetermined endpoints in its clinical trials, and provided that Licensee receives necessary regulatory approvals to continue development and reach the market for the Licensed Product in the Licensed Territory. Licensee shall keep Licensor informed in writing during the clinical development period on at least a semiannual basis of Licensee's efforts and results with regard to continuing development of the Licensed Product. Licensee agrees that if and/or when it or its subsidiary sublicenses the Licensed Product to a third party for commercialization, Licensee shall include provisions in the sublicense agreement to obligate the Sublicensee to continue the clinical development of the Licensed Product in a commercially reasonable manner, provided that Licensee and/or Sublicensee receives necessary regulatory approvals to continue development and reach the market for the Product in the Licensed Territory. The sublicense agreement shall also provide that in the event that the Sublicensee no longer uses commercially reasonable efforts to advance the clinical development of the Licensed Product for reasons other than safety, lack of efficacy or lack of necessary regulatory approvals, as provided above, Licensee shall have the right to either terminate the license agreement or convert an exclusive license to a non-exclusive license so that Licensee may seek other sublicenses.

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ARTICLE 8—TERM AND TERMINATION

8.1 Term. This Agreement shall commence on the Effective Date and shall remain in effect until the last to expire of the Patent Rights (the "Term"), unless earlier terminated in accordance with the provisions of this Article 8 or as provided in Article 12.

8.2 Termination Rights. Licensee may terminate this Agreement at any time during the Term upon thirty (30) days' prior written notice to Licensor.

8.3 Termination for Insolvency. Licensor may terminate this Agreement immediately, if Licensee (a) becomes insolvent or is unable to pay its debts when due, (b) files a petition in bankruptcy, reorganization or similar proceedings (and if filed against, such petition is not removed within thirty (30) days), (c) discontinues its business, or (d) a receiver is appointed or there is an assignment for the benefit of Licensee's creditors.

8.4 Termination for Breach; Other Termination. In the event that (i) either Party commits a material breach of its obligations under this Agreement, excluding Licensee's obligation under Section 7.2 hereof to use commercially reasonable efforts to develop the Licensed Product, (ii) Licensee fails to pay any amount to Licensor hereunder when such amount is due and payable, or (iii) Licensee defaults on the Promissory Note and Loan Agreement between the Parties executed on even date herewith, and the breaching Party fails to cure that breach within thirty (30) days after receiving written notice thereof from the non-breaching Party, the non-breaching Party may terminate this Agreement immediately upon written notice to the breaching Party. In the event that Licensee breaches its obligation under Section 7.2 hereof to use commercially reasonable efforts to develop the Licensed Product and fails to cure that breach within one hundred and twenty (120) days after receiving written notice thereof from Licensor, Licensor may terminate this Agreement immediately upon written notice to Licensee.

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ARTICLE 9—PUBLICATION OF RESULTS

9.1 Publication of Results. If either Party determines that scientific findings and results developed in the conduct of the clinical development program have scientific significance that would be of interest to the broader research community, Licensee shall use reasonable efforts to publish or otherwise cause to be publicly disseminated within the research community such scientific findings and results, together with the underlying data, provided that such results have been produced and verified; provided, however, Licensee shall have no obligation to publish or disseminate information that contains Licensee's Confidential Information or proprietary know-how or trade secrets or would compromise securing patent protection. Licensee shall acknowledge the support of Licensor in all such publications.

ARTICLE 10—INTELLECTUAL PROPERTY

10.1 Ownership Rights in Pre-Existing Works. Each Party will retain ownership and control of their respective works of authorship, inventions, know-how, information, and data, proprietary material, and all intellectual property rights therein, that were in existence as of the Effective Date or are later generated outside of scope of the performance by each Party of its obligations under this Agreement.

10.2 Ownership Rights in Project Inventions. Licensee shall own any and all proprietary rights, including all intellectual property rights, in all Project Inventions.

10.3 Protection and Perfection of Rights. Licensor will assist Licensee in any reasonable manner in the procurement and maintenance of all intellectual property rights in the Project Inventions, provided, however Licensee shall cover all expense at its sole cost. Without limiting the foregoing, Licensor will execute, and cause its employees and representatives to execute, upon Licensee's request, any assignments, applications and other documents that Licensee believes may be necessary or appropriate to protect or perfect intellectual property rights in the Project Inventions. Licensor will ensure that its employees and consultants who participate in activities under this Agreement are obligated to assign or otherwise transfer all right, title and interest in and to all intellectual property rights in the Project Inventions to Licensee or its designee and will, as requested by Licensee, obtain for Licensee the execution of all necessary applications or other documents therefore from any employee or consultant.

10.4 Licensor Representations and Warranties. Licensor represents and warrants to Licensee that:

(i) Licensor is the owner of the entire right, title and interest in the Patent Rights and has the legal power to grant rights to the Patent Rights as set forth in this Agreement;

(ii) Licensor has not granted any rights or made any commitments relative to the granting of any rights to others which are inconsistent with the rights granted to Licensee under this Agreement;

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(iii) The Patent Rights do not infringe or otherwise violate the intellectual property rights of any third party; and

(iv) Licensor (A) has the proper authority to enter into this Agreement; (B) in fulfilling its obligations under this Agreement, Licensor will comply with all applicable laws, decrees, statutes, rules, regulations, codes, and ordinances of any jurisdiction that may be applicable to it; and (C) this Agreement constitutes a legal, valid, and binding obligation of Licensor, enforceable against it in accordance with its terms.

ARTICLE 11—CONFIDENTIALITY

11.1 Definition. Confidential Information shall have the meaning set forth in Section 1.

11.2 Exceptions to Confidential Information. The following information shall not be treated as Confidential Information: information (a) that is in the public domain or is known by others in the field at the time of disclosure; (b) that is in the possession of the Receiving Party free of any obligation of confidentiality prior to the time of disclosure; (c) that subsequently becomes part of the public domain or becomes publicly known through no fault of the receiving party; (d) that subsequently is received by the receiving party without any obligation of confidentiality from a third party who is free to disclose the information; (e) that is independently developed by the receiving party without the use of any Confidential Information; or (f) that is required to be disclosed to comply with applicable laws or regulations, or with a court or administrative order.

11.3 Confidentiality Obligations. For a period of five (5) years following the last disclosure by a Party of Confidential Information pursuant to this Agreement, or an unlimited period for any Confidential Information constituting an ongoing trade secret, the receiving party agrees that it will maintain the confidentiality of and will not disclose to any third party, or use for any purpose other than as contemplated by this Agreement, any Confidential Information furnished to it by the disclosing party, except as permitted herein. The receiving party agrees that any dissemination of Confidential Information to its employees shall be limited to the extent reasonably possible and that the receiving party shall take reasonable steps to instruct all persons to whom any Confidential Information is disclosed of the confidential nature of such information, the proprietary right of the disclosing party therein, and the obligation of such person to maintain the confidentiality of such information during and after employment with the receiving party. The receiving party shall also take appropriate action to reasonably assure that any consultants, agents or independent contractors of the receiving party who are hired or engaged by the receiving party shall hold in confidence any Confidential Information which they acquire during the course of their duties.

11.4 Exceptions to Non-Disclosure Obligation. In the event that the receiving party is required or requested by law or government order to disclose any Confidential Information, the receiving party will, to the extent permitted by law, (a) promptly notify the disclosing party of any such request or requirement, and of the circumstances relating to such disclosure and the proposed scope thereof, so that the disclosing party may seek an appropriate protective order or other appropriate protections, and (b) provide reasonable assistance at the disclosing party's request so the disclosing party may seek to obtain a protective order or other reliable assurance that confidential treatment will be accorded the Confidential Information.

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ARTICLE 12—MISCELLANEOUS

12.1 Relationship of Parties. Nothing in this Agreement is or shall be deemed to constitute a partnership, agency, employee or joint venture relationship between the Parties. No Party shall incur any debts or make any commitments for the other, except to the extent, if at all, specifically provided herein.

12.2 Assignment. Except as expressly provided hereunder, neither this Agreement nor any rights or obligations hereunder may be assigned or otherwise transferred without the prior written consent of the other Party; provided however, that each Party will have the right to assign this Agreement and its rights and obligations hereunder without the other Party's consent in connection with the transfer or sale of all or substantially all of the business of the Party to which this Agreement relates to a third party, whether by merger, sale of stock, sale of assets or otherwise. Notwithstanding the foregoing, any such assignment will not relieve the Party of the Party's responsibilities for performance of its obligations under this Agreement. The rights and obligations of the Parties under this Agreement are binding upon and inure to the benefit of the successors and permitted assigns of the Parties. Any assignment not in accordance with this Agreement will be null and void ab initio.

12.3 Beneficiaries. This Agreement is for the sole and exclusive benefit of the Parties and neither Party intends to create a benefit in favor of any third party.

12.4 Amendment. This Agreement may not be amended except in writing by all of the Parties. This Agreement may be signed in counterparts, each of which when taken together, will constitute one and the same instrument.

12.5 Waiver. No provision of this Agreement shall be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by the waiving Party.

12.6 Governing Law. This Agreement shall be governed by the laws of Florida and the laws of the United States of America as applicable, without regard to its choice of law principles, and any dispute between the Parties with respect to this Agreement shall be subject to the jurisdiction of the Florida courts.

12.7 Severability. Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision will be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement.

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12.8 Force Majeure. Neither Party shall lose any rights hereunder or be liable to the other Party or beneficiary for damages or losses (except for payment obligations) on account of failure of performance by the defaulting party to the extent such the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, pandemic, lockout, embargo, governmental acts or orders or restrictions (except if imposed due to or resulting from the party's violation of law or regulations), failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the nonperforming party and the nonperforming party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a force majeure excuse performance for a period of more than six (6) months.

12.9 DISCLAIMER OF WARRANTIES. THE PARTIES MAKE NO REPRESENTATION OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF TITLE, OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

12.10 Healthcare Compliance. The Parties specifically intend to comply with all applicable laws, rules and regulations, including (i) the federal anti-kickback statute (42 U.S.C. 1320a-7(b) and the related safe harbor regulations; and (ii) the Limitation on Certain Physician Referrals, also referred to as the "Stark Law" (42 U.S.C. 1395 (n)). Accordingly, no part of any consideration paid hereunder is a prohibited payment for the recommending or arranging for the referral of business or the ordering of items or

services; or is intended to induce illegal referrals of business. The Parties shall comply with the Health Insurance Portability and Accountability Act of 1996 and the regulations promulgated thereunder, and all applicable state, local and foreign privacy and other laws, rules and regulations.

12.11 Debarment. Licensee represents that it is not debarred and that it does not knowingly use in any capacity, directly or indirectly, the services of any individual or entity which is debarred by the FDA pursuant to 21 USC Section 335a(a) or (b) for any of the services or research hereunder. Licensee will promptly disclose in writing to Licensor if any individual or entity providing services hereunder is debarred or if any action, claim, investigation or legal or administrative proceeding is pending, threatened, relating to the debarment of Licensee or any individual/entity performing services (a “debarment action”) upon notice of such debarment action. In the event of debarment or notice of a debarment action, Licensor shall have the right to terminate this Agreement immediately upon written notice to Licensee.

12.12 Exclusion. Licensee represents that it is not excluded and does not use in any capacity, directly or indirectly, the services of any individual or entity which is excluded by the Office of the Inspector General (OIG) pursuant to Social Security Act Section 1128(a)(b) and (c) and or 42 USC Section 1320a-7 for any of the services or research hereunder. Licensee will promptly disclose in writing to Licensor if any individual or entity providing services hereunder is excluded or upon notice (an “exclusion action”) or if any action, claim, investigation or legal or administrative proceeding is pending and or threatened. In the event of exclusion or notice of an exclusion action, Licensor shall have the right to terminate this Agreement immediately upon written notice to Licensee.

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12.13 Indemnification.

a. Licensee agrees to indemnify, hold harmless and defend, Licensor and Licensor’s directors, officers, representatives, employees and agents and their respective successors, heirs and assigns (each a “Licensor Indemnitee”) from and against any and all claims, losses, expenses, demands, suits, liability or damage for personal injury, property damage or otherwise, including reasonable attorneys’ fees, (collectively “Claims”), arising directly or indirectly from, relating to, or resulting from (a) any research performed under this Agreement, including research undertaken by one or more investigators or subcontractors pursuant to one or more agreements between Licensee and its subcontractors and investigators, (b) any product developed in whole or in part from such research, (c) any claim of infringement or misappropriation of intellectual property provided the claim is not based on or related to the Patent Rights or Mark, (d) any material breach of its representations, warranties, covenants or obligations under this Agreement or (e) the conduct of Licensee’s business or operations outside of the clinical development program under this Agreement. Notwithstanding the foregoing, Licensee shall have no obligations pursuant to this Agreement to defend or indemnify Licensor from any liability, loss, damage or expense to the extent it arises from (a) Licensor’s negligence or willful misconduct, (b) any material breach by Licensor of its representations, warranties, covenants or obligations under this Agreement, (c) the Patent Rights or Mark, or (d) the conduct by Licensor of its business or operations outside of the clinical development program under this Agreement.

b. Licensee agrees to indemnify, hold harmless and defend, Licensee and Licensee’s subsidiaries, directors, officers, representatives, employees and agents and their respective successors, heirs and assigns (each a “Licensee Indemnitee”) from and against any and all Claims, arising directly or indirectly from, relating to, or resulting from (a) any claim of infringement or misappropriation of intellectual property based on or related to use of the Patent Rights or Mark; (b) any material breach of its representations, warranties, covenants or obligations under this Agreement or (c) the conduct of Licensor’s business or operations. Notwithstanding the foregoing, Licensor shall have no obligations pursuant to this Agreement to defend or indemnify Licensee from any liability, loss, damage or expense to the extent it arises from (a) Licensee’s negligence or willful misconduct, (b) any material breach by Licensee of its representations, warranties, covenants or obligations under this Agreement, or (c) the conduct by Licensee of its business or operations outside of the clinical development program under this Agreement.

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12.14 Indemnification Procedures. In the case of any Claim asserted against a Licensor Indemnitee or Licensee Indemnitee (each an “Indemnitee”), such Indemnitee shall (i) notify the other Party in writing as soon as it becomes aware of any Claim and shall permit the other Party (at the expense of the other Party) to assume defense of any Claim and (ii) cooperate fully with the legal representative chosen by the other Party, who shall be reasonably satisfactory to Indemnitee, provided that the failure of any Indemnitee to give notice as provided herein shall not relieve the other Party of its indemnification obligation hereunder except to the extent that such failure results in a lack of actual notice to the other Party and the other Party is materially prejudiced as a result of such failure to give notice.

(a) Except with the prior written consent of the Indemnitee, the other Party shall not consent to entry of any judgment or enter into any settlement that provides for injunctive or other non-monetary relief affecting the Indemnitee or that does not include as an unconditional term thereof the giving by each claimant or plaintiff to such Indemnitee of a release from all liability with respect to such Claim.

(b) If the Indemnitee in good faith determines that the conduct of the defense of any Claim subject to indemnification under this Agreement or any proposed settlement of any such Claim by the other Party might be expected to affect adversely the Indemnitee’s tax status, reputation, the ability of the Indemnitee to conduct its business or fulfill its mission, the Indemnitee will have the right at all times to take over and assume control over the defense, settlement, negotiations or litigation relating to that portion of the Claim at the sole cost of the other Party, provided that if the Indemnitee does so take over and assume control, the Indemnitee may not settle such Claim without the written consent of the other Party, such consent not to be unreasonably withheld or delayed.

12.15 Insurance. The Parties represent and warrant that they have and will maintain during the Term liability insurance in an amount as is customarily carried by entities engaged in activities similar to those contemplated by this Agreement, but in no event less than \$1 million for a single occurrence and \$4 million in the aggregate. Insufficient insurance or self-insurance coverage shall not relieve a Party of its indemnification obligations under Section 12.15.

12.16 In addition to the liability insurance referred to in Section 12.15 above, the Parties have and will maintain during the Term workmen’s compensation and other insurance coverage in amounts appropriate to the conduct of the Party’s business activities and the services and research contemplated by this Agreement and in conformance with applicable legal and regulatory requirements.

12.17 Licensee shall add Licensor as an additional insured to its insurance policies with respect to the clinical development program under this Agreement, and shall cause its insurance policies to provide for thirty (30) days’ prior written notice to Licensor by the insurance carrier of cancellation, expiration or modification of the insurance policy and will furnish to Licensor certificates of insurance evidencing the foregoing within thirty (30) days after the Effective Date.

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12.18 Limitation on Liability. It is agreed by the Parties that neither Party shall have a right to or shall claim its special, indirect or consequential damages, including lost profits, for breach of this Agreement.

12.19 Publicity; Use of Party’s Name. With the exception of Section 3.4, neither Party shall use the name of the other Party, its trademarks, service marks, logos, or the name of any principal investigator, or any employee or agent, for any press release, marketing, advertising, public relations or other purposes without the prior written consent of the other Party, except that either Party may use the name of each other, disclose the existence of this Agreement, and include a general description of the nature of the clinical development program under this Agreement.

12.20 Notice. All notices required or permitted by this Agreement shall be in writing and shall be given by first class postage pre-paid mail, via electronic mail with receipt verification, or by facsimile transmission, effective in each case upon the date of mailing or facsimile transmission thereof to the parties addressed as follows:

If to Licensor:

MIRALOGX LLC
900 West Platt St., Suite 200
Tampa, FL 33606
Attn: CEO

If to Licensee:

MIRA PHARMACEUTICALS, INC.
855 N. Wolfe St., Suite 601
Baltimore, MD 21205
Attn: CEO

or to such other address as the party to receive such notice shall have designated by written notice to the other party hereto.

[Signatures Begin on Next Page]

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IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be executed by its duly authorized officer as of the day and year first above written.

MIRALOGX LLC (Licensor)

By: /s/ James A. McNulty

Name: James A. McNulty

Title: CFO

MIRA PHARMACEUTICALS, INC. (Licensee)

By: /s/ Erez Aminov

Name: Erez Aminov

Title: CEO

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SCHEDULE A – PATENT RIGHTS

U.S. App. No. 63/537,744, filed September 11, 2023
U.S. App. No. 63/451,891, filed March 13, 2023

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THIS WARRANT AND THE SECURITIES REPRESENTED BY THIS WARRANT HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE OFFERED, SOLD, ASSIGNED, PLEDGED, TRANSFERRED OR OTHERWISE DISPOSED OF IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OR PURSUANT TO AN AVAILABLE EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT, AND UPON DELIVERY OF AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT THE PROPOSED TRANSFER IS EXEMPT FROM THE SECURITIES ACT.

THIS WARRANT AND THE SHARES ISSUABLE UPON THE EXERCISE OF THIS WARRANT ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A MARKET STANDOFF PROVISION AS SET FORTH IN THE SUBSCRIPTION AGREEMENT PURSUANT TO WHICH THIS WARRANT WAS ISSUED, COPIES OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE COMPANY. SUCH TRANSFER RESTRICTIONS AND MARKET STANDOFF PROVISION ARE BINDING ON PERMITTED TRANSFEREES OF THIS WARRANT.

COMMON STOCK PURCHASE WARRANT

To purchase shares of common stock, no par value, of
MIRA PHARMACEUTICALS, INC.

Dated: November 15, 2023

THIS COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, MIRALOGX LLC (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date of this Warrant and on or prior to the close of business on the date that is fifth (5th) anniversary of the date of this Warrant (the “Termination Date”) but not thereafter and subject to Section 11 below (the “Exercise Period”), to subscribe for and purchase from MIRA PHARMACEUTICALS, INC., a Florida corporation (the “Company”), up to Seven Hundred Thousand (700,000) shares (the “Warrant Shares”) of common stock, no par value, of the Company (the “Common Stock”). The purchase price of one share of Common Stock under this Warrant shall be \$2.00 (the “Exercise Price”), payable in cash. This Warrant may be exercised in whole or in part at any time prior to the Termination Date. The Exercise Price and the number of Warrant Shares for which the Warrant is exercisable shall be subject to adjustment as provided herein. The term “Holder” shall refer to the Holder identified above or any subsequent transferee of this Warrant.

1. Authorization of Warrant Shares. The Company represents and warrants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant, be duly authorized, validly issued, fully paid and nonassessable.

2. Exercise of Warrant. Except as provided in Section 3 herein and subject to Section 11, exercise of the purchase rights represented by this Warrant may be made at any time on or after the date of this Warrant and on or prior to the close of business on the Termination Date by (i) surrendering this Warrant, with the Notice of Exercise Form attached hereto completed and duly executed, to the offices of the Company (or such other office or agency (including the transfer agent, if applicable) of the Company as it may designate by notice in writing to the registered Holder at the address of such Holder appearing on the books of the Company), and (ii) delivering to the Company payment of the Exercise Price by wire transfer of immediately available funds or cashier’s check drawn on a United States bank. The Holder exercising his, her or its purchase rights in accordance with the preceding sentence shall be entitled to receive a certificate for the Warrant Shares so purchased, which certificate will bear a legend substantially similar to the legend set forth on this Warrant. Certificates for shares purchased hereunder shall be issued and delivered to the Holder within five (5) business days after the date on which this Warrant shall have been exercised as aforesaid. This Warrant shall be deemed to have been exercised and such certificate or certificates shall be deemed to have been issued, and the Holder shall be deemed to no longer hold this Warrant with respect to such shares and to have become a holder of record of such shares for all purposes, in each case, as of the date the Warrant has been exercised by payment to the Company of the Exercise Price for such shares and all taxes required to be paid by the Holder, if any, pursuant to Section 4 prior to the issuance of such shares, have been paid.

3. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price.

4. Charges, Taxes and Expenses. Issuance of certificates for Warrant Shares shall be made without charge to the Holder for any issue tax or other incidental expense in respect of the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder; provided, however, that the Holder shall pay any applicable transfer taxes.

5. No Rights as Stockholder until Exercise. This Warrant does not entitle the Holder to any voting rights or other rights as a stockholder of the Company prior to the exercise hereof. Upon the surrender of this Warrant and the payment of the aggregate Exercise Price, the Warrant Shares so purchased shall be and be deemed to be issued to such Holder as the record owner of such shares as of the close of business on the later of the date of such surrender or payment, and this Warrant shall no longer be issuable with respect to such Warrant Shares.

6. Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that, upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in the case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it, and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

7. Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday, Sunday or legal holiday, then such action may be taken or such right may be exercised on the next succeeding day not a Saturday, Sunday or legal holiday.

8. Adjustments and Termination of Rights. The purchase price per Warrant Share and the number of Warrant Shares purchasable hereunder are subject to adjustment from time to time as follows:

(a) Reclassification, Recapitalization, etc. If the Company at any time shall, by reclassification of securities, recapitalization, automatic conversion, or other similar event affecting the number or character of outstanding shares of Common Stock, or otherwise, change any of the securities as to which purchase rights under this Warrant exist into the same or a different number of securities of any other class or classes, this Warrant shall thereafter represent the right to acquire such number and kind of securities as would have been issuable as the result of such change with respect to the securities that were subject to the purchase rights under this Warrant immediately prior to such reclassification or other change.

(b) Split, Subdivision or Combination of Shares. If the Company at any time while this Warrant remains outstanding and unexpired shall split, subdivide or combine the securities as to which purchase rights under this Warrant exist, the Exercise Price shall be proportionately decreased in the case of a split or subdivision or

proportionately increased in the case of a combination.

(c) Stock Dividends. If the Company at any time while this Warrant is outstanding and unexpired shall pay a dividend with respect to Common Stock payable in shares of Common Stock, then the Exercise Price shall be adjusted, from and after the date of determination of the shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Exercise Price in effect immediately prior to such date of determination by a fraction (i) the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution, and (ii) the denominator of which shall be the total number of shares of Common Stock outstanding immediately after such dividend or distribution.

(d) Adjustment of Number of Warrant Shares. Upon each adjustment in the Exercise Price pursuant to Sections 8(b) or 8(c) hereof, the number of Warrant Shares purchasable hereunder shall be adjusted to the product obtained by multiplying the number of Warrant Shares purchasable immediately prior to such adjustment in the Exercise Price by a fraction (i) the numerator of which shall be the Exercise Price immediately prior to such adjustment, and (ii) the denominator of which shall be the Exercise Price immediately after such adjustment.

9. Notice of Adjustments, Notices. If the Exercise Price or number or type of securities issuable hereunder shall be adjusted pursuant to Section 8 hereof, the Company shall issue and provide to the Holder, as holder of this Warrant, a certificate signed by an officer of the Company setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated and the Exercise Price and number of Warrant Shares purchasable hereunder after giving effect to such adjustment.

10. Authorized Shares. The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to ensure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation.

11. Early Termination. Notwithstanding anything to the contrary set forth in this Warrant, in the event of a proposed Company Sale, the Company shall give written notice to the Holder that the Company proposes to enter into a Company Sale (a "Sale Notice"). Such notice shall be provided no less than fifteen (15) calendar days prior to the anticipated closing date of the Company Sale. In the event that the Company does not receive a Notice of Exercise within fifteen (15) days after delivering the Sale Notice, then this Warrant will automatically terminate and be of no further force and effect as of the closing date of the Company Sale. Each Warrant not exercised on or before the date of consummation of a Company Sale shall become void, and all rights thereunder and in respect thereof under this Warrant shall cease at the close of business on such date. "Company Sale" means (i) a sale or transfer of more than fifty percent (50%) or more of the outstanding shares of Common Stock of the Company by the holders thereof to transferees that are not affiliates of the respective transferors, (ii) the sale or disposition of all or substantially all of the Company's assets, (iii) any merger, consolidation, or other business combination of the Company with an entity that is not an affiliate of the Company, or (iv) any other transaction or reorganization that the Board of Directors of the Company believes in good faith is in the nature of a transaction described in the foregoing clauses of this sentence.

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12. Miscellaneous.

(a) Jurisdiction. This Warrant shall constitute a contract under the laws of the State of Florida, without regard to its conflict of law, principles or rules.

(b) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant will have restrictions upon resale imposed by state and federal securities laws.

(c) Notices. All notices, requests, consents and other communications provided for herein shall be in writing and shall be effective upon delivery in person or five business days after being mailed by certified or registered mail, return receipt requested, postage pre-paid, addressed as follows:

- (i) If to the Holder to the address of the Holder as shown on the books of the Company; or
- (ii) If to the Company:

MIRA PHARMACEUTICALS, INC.
900 W PLATT ST., SUITE 200
TAMPA, FLORIDA 33606
Attention: Chief Executive Officer

or at such other address as the Holder or the Company, as applicable, may hereafter provide to the other in accordance with the provisions of this paragraph.

(d) Successors and Assigns; Assignment. This Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors of the Company. The Holder may assign this Warrant without the prior written consent of the Company as long as such assignment complies with applicable state and federal laws regarding the assignment of the Warrant, and if determined to be necessary by counsel to the Company, the Company has received an opinion of counsel, paid for by the Holder and satisfactory to counsel for the Company, that such assignment will not violate applicable state and federal securities laws.

(e) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company and the Holder.

(f) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

(g) Headings. The headings used in this Warrant are for convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

[signature follows]

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IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized.

MIRA PHARMACEUTICALS, INC.

By: /s/ Erez Aminov
Erez Aminov
Chief Executive Officer

NOTICE OF EXERCISE

To: MIRA PHARMACEUTICALS, INC.

(1) The undersigned hereby elects to purchase _____ of the Warrant Shares of MIRA PHARMACEUTICALS, INC. pursuant to the terms of the attached Warrant. Capitalized terms used but not otherwise defined herein shall have the meanings set forth in the attached Warrant.

(2) The undersigned tenders herewith payment of the Exercise Price in full, together with all applicable transfer taxes, if any. Payment shall take the form of lawful money of the United States.

(3) Please issue a certificate or certificates representing said Warrant Shares in the name of the undersigned. The Warrant Shares shall be delivered to the following:

(4) Accredited Investor. The undersigned is an “accredited investor” as defined in Regulation D under the Securities Act of 1933, as amended.

PURCHASER

By: _____

Name:

Title:

Dated: _____

FLORIDA DOCUMENTARY STAMP TAX IN THE AMOUNT \$2,450.00 HAS BEEN PAID OR WILL BE PAID DIRECTLY TO THE FLORIDA DEPARTMENT OF REVENUE.

PROMISSORY NOTE AND LOAN AGREEMENT

\$3,000,000

Tampa, FL
November 15, 2023

FOR VALUE RECEIVED AND IN CONSIDERATION OF THE LOAN, MIRA Pharmaceuticals, Inc., a Florida corporation (the "**Borrower**"), hereby promises to pay to the order of Miralogx LLC, a Florida limited liability company (the "**Lender**"), the principal sum of Three Million and No/100 Dollars (\$3,000,000.00) (the "**Commitment Amount**"), or such lesser amount thereof as may be borrowed from the Lender and then outstanding, together with interest thereon from the date of this Promissory Note and Loan Agreement (this "**Note**"). Interest on any amounts advanced pursuant to this Note (each such amount, an "**Advance**") shall accrue and be paid in the manner set forth in Section 4 of this Note. Subject to the provisions of Section 10 hereof, the outstanding principal of, and any and all accrued and unpaid interest with respect to, this Note shall be due and payable by the Borrower on November __, 2024 (the "**Maturity Date**").

1. Loan Commitment; Borrowing Procedure. Subject to the terms and conditions set forth herein, Lender agrees to make one or more Advances to the Borrower in an aggregate original principal amount up to the Commitment Amount (the "**Loan**"). Subject in all cases to the provisions of Section 2, at any time and from time to time from and after the date hereof and through and including the Maturity Date, during normal business hours, upon not less than three (3) business days prior written notice, the Borrower may deliver to the Lender a written request for an Advance (each, an "**Advance Request**"). Together with any Advance Request, Borrower shall deliver to the Lender a budget for the requested Advance (the "**Budget**"). The Budget may only include costs directly associated with preparing an Investigational New Drug (IND) application for Ketamir, exclusive of personnel costs. No portion of the Budget may include salaries. On the date set forth in the applicable Advance Request (which date shall be not less than five (5) business days after the date of such Advance Request), the Lender shall (subject to the provisions of Section 2) disburse to the Borrower the full amount set forth in the applicable Advance Request. Any amounts so disbursed will be advanced to the Borrower as a loan and shall be evidenced by, and subject to, the terms and conditions of this Note. Any Advances made by the Lender to the Borrower pursuant to this Note may be repaid by the Borrower (together with any and all interest accrued thereon) at any time without penalty or premium in accordance with the terms hereof. Amounts repaid hereunder may not be reborrowed.

2. Limitations on Borrowing. The Lender shall not have any obligation to make, nor be required to make, any Advances or other extension of credit to the Borrower hereunder if (a) an Event of Default (as defined below) has occurred or (b) Borrower has obtained financing from other sources (other than cash on hand as of the date of this Note) sufficient to fund its clinical development of Ketamir, which is the subject of an Exclusive License Agreement executed on even date herewith. In no event shall the Lender be obligated to make any Advances or other extension of credit to the Borrower in excess of the Commitment Amount.

3. Payments Generally. All payments shall be made to the Lender in immediately available funds and in lawful money of the United States of America at the principal office of the Lender, or at such other place as Lender may from time to time designate in writing to the Borrower. Each payment of any amounts owed hereunder shall be applied to the then outstanding obligations under this Note in the following order of priority: *first*, to any fees or other amounts then due hereunder, *second*, to any accrued and unpaid interest with respect to this Note, and, *third*, to the outstanding principal of this Note. The Borrower hereby unconditionally waives (a) any rights to presentment, demand, protest or (except as expressly required hereby) notice of any kind, and (b) any rights of rescission, setoff, counterclaim, suretyship or defense to payment under this Note or otherwise that the Borrower may have or claim against the Lender.

4. Calculation and Payment of Interest. This Note (inclusive of all Advances made hereunder) will bear interest on the outstanding principal amount thereof at a fixed rate equal to eight percent (8.0%) per annum, simple interest up to and including the date on which this Note is paid in full. Interest shall be calculated based on a year consisting of 365 days and the actual number of days elapsed. Interest shall accrue on a quarterly basis and shall be due and payable on the Maturity Date.

5. Payment of Principal. Unless earlier accelerated in accordance with the provisions hereof following the occurrence of an Event of Default, the unpaid principal balance of this Note (inclusive of all Advances), together with all accrued and unpaid interest, fees and other amounts due hereunder, shall be due and payable in full on the Maturity Date.

6. Prepayments. The Borrower may prepay all or any portion of the outstanding obligations of this Note (including any and all Advances) at any time without penalty or premium.

7. Representations and Warranties of the Borrower. In connection with the transactions provided for herein, the Borrower hereby represents and warrants to the Lender that:

7.1 **Organization, Good Standing and Qualification.** The Borrower is a corporation duly organized, validly existing and in good standing under the laws of the State of Florida and has all requisite corporate power and authority to carry on its business as now conducted. The Borrower is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a material adverse effect on its business or properties.

7.2 **Authorization.** All corporate action has been taken on the part of the Borrower, its officers, directors and shareholders necessary for the authorization, execution and delivery of this Note. The Borrower has taken all corporate action required to make all the obligations of the Borrower reflected herein the valid and enforceable obligations they purport to be.

7.3 **Compliance with Other Instruments.** The authorization, execution and delivery of this Note will not constitute or result in a material default or violation of any law or regulation applicable to the Borrower or any material term or provision of the Borrower's current Articles of Incorporation or bylaws, or any material agreement or instrument by which it is bound or to which its properties or assets are subject.

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8. Representations and Warranties of the Lender. In connection with the transactions provided for herein, the Lender hereby represents and warrants to the Borrower that:

8.1 **Authorization.** This Note constitutes the Lender's valid and legally binding obligation, enforceable in accordance with its terms, except as may be limited by (i) applicable bankruptcy, insolvency, reorganization or similar laws relating to or affecting the enforcement of creditors' rights and (ii) laws relating to availability of specific performance, injunctive relief or other equitable remedies.

8.2 **Purchase Entirely for Own Account.** The Lender acknowledges that this Note is issued to the Lender in reliance upon the Lender's representation to the Borrower that the Note will be acquired for investment for the Lender's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that such Lender has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Note, the Lender further

represents that the Lender does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participations to such person or to any third person, with respect to this Note.

8.3 Disclosure of Information. The Lender acknowledges that it has received all the information it considers necessary or appropriate for deciding whether to acquire this Note. The Lender further represents that it has had an opportunity to ask questions and receive answers from the Borrower regarding the terms and conditions of the offering of this Note.

8.4 Investment Experience. The Lender is an investor in securities of companies in the development stage and acknowledges that it is able to fend for itself, can bear the economic risk of its investment, and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in this Note. If other than an individual, the Lender also represents it has not been organized solely for the purpose of acquiring this Note.

8.5 Accredited Investor. The Lender is an "accredited investor" within the meaning of Rule 501 of Regulation D, as presently in effect, as promulgated by the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "Act").

8.6 Restricted Securities. The Lender understands that this Note is characterized as a "restricted security" under the federal securities laws inasmuch as it is being acquired from the Borrower 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 Act, only in certain limited circumstances. In this connection the Lender represents that it is familiar with Rule 144 as promulgated by the SEC under the Act, as presently in effect ("Rule 144"), and understands the resale limitations imposed thereby and by the Act.

8.7 Further Limitations on Disposition. Without in any way limiting the representations and warranties set forth above, the Lender further agrees not to make any disposition of all or any portion of this Note unless and until the transferee has agreed in writing for the benefit of the Borrower to be bound by this Section and:

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

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(b) (i) The Lender shall have notified the Borrower of the proposed disposition and shall have furnished the Borrower with a detailed statement of the circumstances surrounding the proposed disposition and (ii) if other than an individual, Lender shall not make any disposition to any of the Borrower's competitors as such is in good faith determined by the Borrower.

9. Reserved.

10. Defaults and Remedies.

10.1 Events of Default. Each of the following events shall be considered an "*Event of Default*" with respect to this Note:

(a) The Borrower shall default in the payment of any part of the principal, interest or other amounts owed to Lender pursuant to this Note, in each case after ten (10) days after the same shall become due and payable hereunder, whether at the Maturity Date or at a date fixed for prepayment or by acceleration or otherwise;

(b) Any representation or warranty made by the Borrower herein is determined to have been false, misleading or erroneous in any material respect when made;

(c) The Borrower shall fail to comply in any material respect with any covenant, agreement or other obligation contained in this Note (other than the obligation to pay amounts owed hereunder, which shall be governed by the provisions of Section 10.1(a)) in a timely manner, and such failure shall remain uncured for a period of more than ten (10) days after the Borrower receives notice of the same; or

(d) The Borrower shall make an assignment for the benefit of creditors, or shall admit in writing its inability to pay its debts as they become due, or shall file a voluntary petition for bankruptcy, or shall file any petition or answer seeking for itself any reorganization, arrangement, composition, readjustment, dissolution or similar relief under any present or future statute, law or regulation, or shall file any answer admitting the material allegations of a petition filed against the Borrower in any such proceeding, or shall seek or consent to or acquiesce in the appointment of any trustee, receiver or liquidator of the Borrower, or of all of any substantial part of the properties of the Borrower, or the Borrower or its managers or members shall take any action looking to the dissolution or liquidation of the Borrower.

10.2 Remedies. Upon the occurrence and during the continuation of an Event of Default under Section 10.1, the entire unpaid principal and accrued and unpaid interest on this Note shall, without presentment, demand, protest or notice of any kind, all of which are hereby expressly waived, be forthwith due and payable (a) immediately upon the occurrence of any Event of Default described in Section 10.1(d) and (b) at the option and upon the declaration of the Lender upon the occurrence of any other Event of Default. Upon the occurrence and during the continuation of an Event of Default under Section 10.1, the Lender may, immediately and without expiration of any period of grace, enforce payment of all amounts due and owing under this Note and exercise any and all other remedies granted to it hereunder.

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11. Miscellaneous.

11.1 Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Note shall inure to the benefit of and be binding upon the respective successors and assigns of the parties; provided, however that the Borrower may not assign its obligations under this Note without the written consent of the Lender. Nothing in this Note, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations or liabilities under or by reason of this Note, except as expressly provided in this Note.

11.2 Governing Law. This Note shall be governed by and construed under the laws of the State of Florida, without regard to its conflict of laws principles. **EACH OF THE BORROWER AND THE LENDER HEREBY CONSENT TO THE JURISDICTION OF ANY COURT LOCATED IN SARASOTA OR HILLSBOROUGH COUNTIES, FLORIDA, WAIVE ANY OBJECTION TO JURISDICTION AND VENUE OF ANY ACTION INSTITUTED AGAINST ANY OF THEM IN SUCH FORUM AS PROVIDED ABOVE AND AGREE NOT TO ASSERT ANY DEFENSE BASED ON LACK OF JURISDICTION OR VENUE IN SUCH FORUM.**

11.3 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Note.

11.4 Notices. All notices and other communications given or made pursuant hereto shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with a

nationally recognized overnight courier, specifying next day delivery, with written verification of receipt.

11.5 Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Note, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

11.6 Severability. If one or more provisions of this Note are held to be unenforceable under applicable law, such provision shall be excluded from this Note and the balance of the Note shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

11.7 Further Assurance. From time to time, the Borrower shall execute and deliver to Lender such additional documents and shall provide such additional information to the Lender as Lender may reasonably require to carry out the terms of this Note, and any agreements executed in connection herewith.

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11.8 Waiver of Jury Trial. TO THE EXTENT EACH MAY LEGALLY DO SO, EACH PARTY HERETO HEREBY EXPRESSLY WAIVES ANY RIGHT TO TRIAL BY JURY OF ANY CLAIM, DEMAND, ACTION, CAUSE OF ACTION OR PROCEEDING ARISING UNDER OR WITH RESPECT TO THIS NOTE, OR IN ANY WAY CONNECTED WITH, OR RELATED TO, OR INCIDENTAL TO, THE DEALING OF THE PARTIES HERETO WITH RESPECT TO THIS NOTE, OR THE TRANSACTIONS RELATED THERETO, IN EACH CASE WHETHER NOW EXISTING OR HEREAFTER ARISING, AND IRRESPECTIVE OF WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE. TO THE EXTENT EACH MAY LEGALLY DO SO, EACH PARTY HERETO HEREBY AGREES THAT ANY SUCH CLAIM, DEMAND, ACTION OR PROCEEDING SHALL BE DECIDED BY A COURT TRIAL WITHOUT A JURY AND THAT EITHER PARTY HERETO MAY FILE AN ORIGINAL COUNTERPART OR A COPY OF THIS AGREEMENT WITH ANY COURT AS WRITTEN EVIDENCE OF THE CONSENT OF ANY OTHER PARTY HERETO TO THE WAIVER OF ITS RIGHT TO TRIAL BY JURY.

11.9 Entire Agreement; Amendments and Waivers. This Note and the other documents delivered pursuant hereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof. Any term of this Note may be amended and the observance of any term may be waived (either generally or in a particular instance and either retroactively or prospectively), with the written consent of the Borrower and the Lender. Any waiver or amendment effected in accordance with this Section shall be binding upon each future holder of all such securities, and the Borrower.

11.10 Florida Documentary Stamp Tax. The Borrower shall pay any and all Florida documentary stamp taxes that may be due with respect to this Note.

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IN WITNESS WHEREOF, the parties have executed this Promissory Note and Loan Agreement as of the date first above written.

BORROWER:

MIRA PHARMACEUTICALS, INC.

By: /s/ Erez Aminov
Erez Aminov
Chief Executive Officer

LENDER:

MIRALOGX LLC

By: /s/ James A. McNulty
James A. McNulty
Chief Financial Officer



MIRA Pharmaceuticals Announces Exclusive Licensing Agreement for Oral Ketamine Analog, Ketamir-2

– New Chemical Entity Aims to Provide New Treatments for Refractory Depression and Depression with Suicidal Thoughts –

– Ketamir-2 Is Being Developed As a Take Home Alternative to The Revolutionary Drug Spravato, Which Must be Dosed Under Medical Observation –

Baltimore, MD – November 20, 2023 – MIRA Pharmaceuticals, Inc. (NASDAQ: MIRA) (“MIRA” or the “Company”), an innovative pre-clinical-stage pharmaceutical company, today announced a partnership with MIRALOGX, LLC, an intellectual property holding company established by MIRA’s founder. Under an exclusive licensing agreement, MIRA will have the exclusive right in the U.S., Canada, and Mexico to develop and commercialize Ketamir-2, a novel oral ketamine analog designed to revolutionize the landscape of depressive disorder treatments. This transformative collaboration includes a a \$3 million line of credit extended by MIRALOGX to fund the initial development of Ketamir-2.

Ketamir-2 is a unique patent-pending compound under investigation to potentially deliver ultra-rapid antidepressant effects as early as four hours after dosing, providing hope for individuals battling treatment-resistant depression (TRD) and major depressive disorder with suicidal ideation (MDSI). Because of its potential for misuse or illegal distribution, Ketamine is classified by the U.S. Drug Enforcement Administration (DEA) as a Schedule III substance, meaning that it is available legally only through a prescription, and its distribution and use are closely monitored. In contrast, after making its scientific review of Ketamir-2, the DEA concluded that Ketamir-2 is not a controlled substance or listed chemical under the Controlled Substances Act (CSA) and its governing regulations.

Dr. Adam Kaplin, MD, PhD, MIRA’s President and Chief Scientific Officer and an esteemed expert in ketamine research and an adjunct faculty member at Johns Hopkins Medicine, will lead the development of Ketamir-2. Dr. Kaplin served as the Johns Hopkins site Principal Investigator for multi-center pivotal clinical trials, leading to the approval of an intranasal left-handed ketamine molecule called esketamine, brand name Spravato®¹. He also founded and managed the Johns Hopkins Esketamine Clinic for Depression and made significant contributions as Co-Chair to the National Network of Depression Centers’ Task Force on Ketamine for Depression.

Dr. Kaplin remarked, “In our continuing pursuit to alleviate the burden of treatment-resistant depression, the development of Ketamir-2 offers a promising beacon of hope. I am honored to lead its development journey and am optimistic about its potential to transform the lives of individuals suffering from TRD and suicidal depression.”

¹ Spravato® is a registered trademark of Janssen Pharmaceuticals, Inc.



“A salient feature of Ketamir-2 is its potential superior bioavailability as suggested by recent pre-clinical studies. Unlike Ketamine, which necessitates intravenous, intramuscular, or intranasal administration due to its limited oral bioavailability, in initial pre-clinical studies, Ketamir-2 appears to exhibit a more clinically desirable gastrointestinal absorption profile. In addition, Ketamir-2’s targeted design removes its interaction with some of the receptors targeted by ketamine, such as the opiate receptor, which are believed to be key to mediating some of its key side effects, thus, potentially enhancing Ketamir-2’s safety and tolerability profile. By focusing on such receptors, Ketamir-2 is designed to possibly mitigate prevalent side effects such as sedation, addiction, dissociative symptoms, and cardiovascular concerns. Unlike Spravato, which must be monitored during treatment for two hours by trained clinicians, we believe that Ketamir-2’s initial predicted favorable side effect profile and its oral availability may pave the way for Ketamir-2’s target to achieve FDA approval for convenient home self-administration, a significant boon for patient-centric care.”

Erez Aminov, Chief Executive Officer of MIRA, added: “This partnership with MIRALOGX is a testament to the shared vision of both companies in transforming lives and driving mental health research. Ketamir-2 embodies hope, and this partnership propels us toward a future where we may be able to actively address mental health challenges with transformative solutions. Concurrently, our unwavering commitment to the progress and development of MIRA1a remains steadfast. We are strategically positioning both MIRA1a and Ketamir-2 to maximize their impacts on advancing the treatment of mental illness while broadening and diversifying MIRA’s pipeline. The combination of this exclusive licensing agreement and obtaining initial funding for development through the MIRALOGX line of credit propels MIRA into an exciting phase of innovation and development.”

About MIRALOGX, LLC

MIRALOGX LLC stands as a forefront developer, pioneering the creation of novel molecular entities to address unmet needs in healthcare. As a leading innovator, they are committed to advancing the field by introducing groundbreaking solutions that cater to unaddressed medical challenges.



About MIRA Pharmaceuticals, Inc.

MIRA Pharmaceuticals, Inc. (Nasdaq: MIRA) is a pre-clinical-stage pharmaceutical development company developing an unscheduled novel synthetic THC analog. This novel compound is currently under investigation for treating adult patients suffering from anxiety and cognitive decline, often associated with early-stage dementia. MIRA1a, if approved by the FDA, could mark a significant advancement in addressing various neuropsychiatric, inflammatory, and neurologic diseases and disorders. Based on pre-clinical and animal studies conducted by the Company, the Company believes that MIRA1a may enhance the therapeutic potential for treating anxiety, cognitive decline, and

neuropathic pain without the side effects of plant-based THC. Furthermore, the Company's studies show that MIRA1a may counteract the adverse cognitive effects often seen with THC, thereby potentially unmasking previously unseen positive therapeutic effects, such as cognitive performance enhancement.

The U.S. Drug Enforcement Administration (DEA)'s scientific review of MIRA1a concluded that MIRA1a would not be considered a controlled substance or listed chemical under the Controlled Substances Act (CSA) and its governing regulations or require scheduling during development.

Additional information about the Company is available at: www.mirapharmaceuticals.com.

Forward-Looking Statements

This press release may contain forward-looking statements about MIRA Pharmaceuticals, Inc. ("MIRA," "we," "us," or "our"). In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will" or "would," or the negative of these terms or other comparable terminology. These forward-looking statements are subject to numerous risks and uncertainties, many of which are beyond our control, including risks and uncertainties regarding our ability to develop and obtain regulatory approval for our product candidates, Ketamir-2 and MIRA1a. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, which may cause our actual results, levels of activity, performance or achievements of and those of our industry to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Some of these risks and uncertainties are identified in our Registration Statement on Form S-1 filed with the SEC (File No. 333-273024) and in our other filings with the SEC, which are available at www.sec.gov. You should not place undue reliance on any forward-looking statement. We undertake no obligation to update or revise publicly any of the forward-looking statements after the date hereof to conform the statements to actual results or changed expectations except as required by law.

General Note

This press release discusses product candidates that are in early stage pre-clinical development and have not yet been approved for marketing by the U.S. Food and Drug Administration. No representations are made as to the safety or effectiveness of these product candidates for the uses for which they are being studied. There is no assurance that either product candidate will proceed through development or will receive FDA approval for marketing.

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