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Inc. 20160805 S-1 1 endra_s1.htm FORM S-1 endra_s1.htmAs filed with the Securities and Exchange Commission on April 19,
2024. Registration No. 333- UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM S-1 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933 ENDRA Life Sciences Inc. (Exact name of
registrant as specified in its charter) Delaware 3845 26-0579295 (State or other jurisdiction of incorporation or
organization) (Primary Standard Industrial Classification Code Number) (I.R.S. Employer Identification Number) 3600
Green Court, Suite 350, Ann Arbor, MI 48105-1570 (734) 335-0468 (Address, including zip code, and telephone number,
including area code, of registrant's principal executive offices) Francois Michelon Chief Executive
Officer ENDRA Life Sciences Inc. 3600 Green Court, Suite 350, Ann Arbor, MI 48105-1570 (734) 335-0468 (Name, address,
including zip code, and telephone number, including area code, of agent for service) Copies to: Mark R.
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7400 Robert Charron, Esq. Ellenoff Grossman & Schole LLP 1345 Avenue of the Americas, 11th Floor New York, New York
10165 Telephone: (212) 370-1300 Approximate date of commencement of proposed sale to the public:
As soon as practicable after this Registration Statement is declared effective. If any of the securities being registered on this
Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the
following box. If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the
Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective
registration statement for the same offering. If this Form is a post-effective amendment filed pursuant to
Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the
earlier effective registration statement for the same offering. If this Form is a post-effective amendment filed pursuant to
Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the
earlier effective registration statement for the same offering. Indicate by check mark whether the registrant is a large
accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See
the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging
growth company" in Rule 12b-2 of the Exchange Act. Large accelerated filer Accelerated filer Non-
accelerated filer Smaller reporting company 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 7(a)(2)(B) of the Securities Act. The registrant
hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the
registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become
effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become
effective on such date as the Commission, acting pursuant to said Section 8(a), may determine. The information in
this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with
the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting
an offer to buy these securities in any state where the offer or sale is not permitted. Preliminary Prospectus Subject to
Completion, dated April 19, 2024. [] Shares of Common Stock Pre-Funded Warrants to purchase up to [] Shares of
Common Stock Series A Warrants to purchase up to [] Shares of Common Stock Series B Warrants to purchase up to []
Shares of Common Stock and [] Shares of Common Stock underlying the Pre-Funded Warrants, Series A Warrants and
Series B Warrants. This is a firm commitment public offering of [] shares of common stock, par value \$0.0001 per share
(common stock), together with Series A warrants to purchase [] shares of common stock (the "Series A Warrants") and Series B
warrants to purchase [] shares of common stock (the "Series B Warrants") and, together with the Series A
Warrants, the common warrants will be sold in a fixed combination, with each
share of common stock accompanied by a Series A Warrant to purchase one share of common stock and a Series B Warrant to
purchase one share of common stock. The shares of common stock and common warrants are immediately separable and will be
issued separately in this offering but must be purchased together in this offering. The Series A Warrants will have an exercise
price of \$ per share and will be exercisable beginning on the effective date of shareholder approval of the issuance of
shares upon exercise of the common warrants (the "Warrant Shareholder Approval"). The effective date of Warrant
Shareholder Approval is the "Initial Exercise Date" for the common warrants. The Series A Warrants will expire on five-year
anniversary of the Initial Exercise Date. The Series B Warrants will have an exercise price of \$ per share and will be
exercisable beginning on the Initial Exercise Date. The Series B Warrants will expire on the twelve-month anniversary of the
Initial Exercise Date. Our common stock trades on the Nasdaq Capital Market under the symbol "NDRA". The assumed
public offering price for each share of common stock and the accompanying common warrants for purposes of this preliminary
prospectus is \$0.2334 (equal to the last sale price of our common stock as reported by The Nasdaq Capital Market on April 18,
2024). The actual public offering price per each set of a share of common stock and accompanying common warrants in this
offering will be determined between us and the underwriter at the time of pricing and may reflect a discount to the current
market price for our common stock. Therefore, the recent market price used throughout this preliminary prospectus as a basis
for an assumed public offering price per share of common stock and accompanying common warrants may not be indicative of
the final offering price. We are also offering pre-funded warrants to purchase up to an aggregate of [] shares of common
stock (the "pre-funded warrants"), in lieu of shares of common stock to those purchasers whose purchase of shares of
common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially
owning more than 4.99% (or, at the election of the purchaser, 9.99 %) of our outstanding shares of common stock following the
consummation of this offering. A holder of pre-funded warrants will not have the right to exercise any portion of its pre-funded
warrants if the holder, together with its affiliates and certain related parties, would beneficially own in excess of 4.99% (or, at the
election of the holder, 9.99%) of the number of shares of common stock outstanding immediately after giving effect to such
exercise. Each pre-funded warrant is exercisable for one share of our common stock. Each pre-funded warrant is being issued
together with the same common warrants described above being issued with each share of common stock. For each pre-funded
warrant that we sell, the number of shares of common stock that we are selling will be decreased on a one-for-one basis. The
combined public offering price of each pre-funded warrant, together with the accompanying common warrants, will be equal to
the price being sold to the public in this offering, minus \$0.0001. The pre-funded warrants are immediately exercisable and may
be exercised at any time until all of the pre-funded warrants are exercised in full. The pre-funded warrants and the common
warrants are immediately separable and will be issued separately but will be purchased together in this offering. In this
prospectus, we refer to the common warrants and pre-funded warrants together as the "warrants". This prospectus also
relates to the offering of common stock issuable upon exercise of such warrants. We collectively refer to the shares of common
stock and warrants offered hereby and the shares of common stock underlying the warrants as the "securities". There is no
established public trading market for the warrants, and we do not expect a market to develop. We do not intend to apply for
listing of the warrants on any securities exchange or other nationally recognized trading system. Without an active trading
market, the liquidity of the warrants will be limited. i A Per share and common warrants A Per pre-funded
warrant and common warrants A Total A Public offering price A \$ A \$ A Underwriting discounts and

commissions(1) \$ \$ \$ \$ \$ Proceeds, before expenses, to us(2) \$ \$ \$ \$ \$ (1) We have agreed to give the underwriter a discount equal to seven percent (7.0%) of the gross proceeds of this offering. This does not include the reimbursement of certain expenses of the underwriter we have agreed to pay. We have also agreed to issue the underwriter a warrant to purchase a number of shares of common stock equal to five percent (5.0%) of the common stock in this offering (including the common stock issuable upon the exercise of the pre-funded warrants). See "Underwriting" for additional disclosure regarding the underwriting discounts and commissions and estimated offering expenses. (2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the warrants being issued in this offering. Investing in our securities involves a high degree of risk. See "Risk Factors" on page [â–] of this prospectus and elsewhere in any supplements for a discussion of information that should be considered in connection with an investment in our securities. Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense. The underwriter expects to deliver the shares to purchasers on or about , 2024. Sole Managing Underwriter Craig-Hallum. The date of this prospectus is , 2024. ii TABLE OF CONTENTS A Page CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS iv PROSPECTUS SUMMARY A 1 RISK FACTORS A 7 USE OF PROCEEDS A 11 DILUTION A 12 DESCRIPTION OF OUR SECURITIES A 13 UNDERWRITING A 20 LEGAL MATTERS A 22 EXPERTS A 22 WHERE YOU CAN FIND MORE INFORMATION A 22 INCORPORATION BY REFERENCE A 23 You should rely only on the information contained in this prospectus. Neither we nor the underwriter has authorized anyone to provide you with different information and, if provided, such information or representations must not be relied upon as having been authorized by us or the underwriter. This prospectus shall not constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. You should read this prospectus together with the additional information described below under the heading "Where You Can Find More Information." We may also provide a prospectus supplement or post-effective amendment to the Registration Statement to add information to, or update or change information contained in, this prospectus. This prospectus does not contain all of the information included in the Registration Statement. For a more complete understanding of the offering of the securities, you should refer to the Registration Statement, including its exhibits. Unless the context indicates otherwise, in this prospectus, the terms "ENDRA," "we," "us," "our," "Company" refer to ENDRA Life Sciences Inc., a Delaware corporation, and its subsidiaries. iii Table of Contents A CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS A This prospectus contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the "safe harbor" created by those sections. Forward-looking statements, which are based on certain assumptions and describe our future plans, strategies and expectations, can generally be identified by the use of forward-looking terms such as "believe," "expect," "may," "will," "should," "would," "could," "seek," "intend," "plan," "goal," "project," "estimate," "anticipate," "strategy," "future," "likely" or other comparable terms and references to future periods. All statements other than statements of historical facts included in this prospectus regarding our strategies, prospects, financial condition, operations, costs, plans and objectives are forward-looking statements. Examples of forward-looking statements include, among others, statements we make regarding: estimates of the timing of future events and anticipated results of our development efforts, including the timing of submission for and receipt of required regulatory approvals and product launches; statements relating to future financial position and projected costs and revenue; expectations concerning our business strategy; and statements regarding our ability to find and maintain development partners. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following: our limited commercial experience, limited cash and history of losses; our ability to obtain adequate financing to fund our business operations in the future; our ability to achieve profitability; delays and changes in regulatory requirements, policy and guidelines, including potential delays in submitting required regulatory applications or other submissions with respect to U.S. Food and Drug Administration ("FDA") or other regulatory agency approval; our ability to obtain and maintain required CE mark certifications and secure required FDA and other governmental approvals for our Thermo-Acoustic Enhanced Ultrasound ("TAEUS") applications; our ability to develop a commercially feasible application based on our TAEUS technology; market acceptance of our technology; the effect of macroeconomic conditions on our business; results of our human studies, which may be negative or inconclusive; our ability to find and maintain development partners; our reliance on third parties, collaborations, strategic alliances and licensing arrangements to complete our business strategy; the amount and nature of competition in our industry; our ability to protect our intellectual property; potential changes in the healthcare industry or third-party reimbursement practices; our ability to comply with regulation by various federal, state, local and foreign governmental agencies and to maintain necessary regulatory clearances or approvals; our ability to maintain compliance with Nasdaq listing standards; our dependence on our senior management team; and the other risks and uncertainties described in the Risk Factors and in Management's Discussion and Analysis of Financial Condition and Results of Operations sections of our Annual Report on Form 10-K for the year ended December 31, 2023. Any forward-looking statement made by us in this report is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise. iv Table of Contents A A A PROSPECTUS SUMMARY A This summary contains basic information about us and our business but does not contain all of the information that is important to your investment decision. You should carefully read this summary together with the more detailed information contained elsewhere in this before making an investment decision. Investors should carefully consider the information set forth under the caption "Risk Factors" appearing elsewhere in this prospectus. Overview A We were incorporated as a Delaware corporation in 2007. We are developing a next-generation enhanced ultrasound technology platform—"Thermo Acoustic Enhanced Ultrasound, or TAEUS®" in order to broaden patient access to the safe diagnosis and treatment of a number of significant medical conditions in circumstances where expensive X-ray computed tomography ("CT"), magnetic resonance imaging ("MRI") technology, or other diagnostic technologies such as surgical biopsy, are unavailable or impractical. Our TAEUS technology uses radio frequency ("RF") pulses to stimulate tissues, using a small fraction (less than 1%) of the amount of energy that would be transmitted into the body during an MRI scan. The use of RF energy allows our TAEUS technology to penetrate deep into tissue, enabling the imaging of human anatomy at depths equivalent to those of conventional ultrasound. The RF pulses are absorbed by tissue and converted into ultrasound signals, which are detected by an external ultrasound receiver and a digital acquisition system that is part of the TAEUS system. The detected ultrasound is processed into images and other forms of data using our proprietary software and algorithms and then displayed to complement conventional gray-scale ultrasound images. The TAEUS imaging concept is illustrated below: A We believe that our TAEUS technology has

the potential to add a number of new capabilities to conventional ultrasound, and other types of capital medical equipment such as interventional thermo-ablation systems, and thereby enhance the utility of those systems. Additionally, we believe that our technology can extend the use of ultrasound technology to indications and clinical situations that currently require the use of expensive CT or MRI imaging systems, where imaging is not practical using existing technology, or where other assessment tools such as surgical biopsy are required. Our TAEUS platform is not intended to replace CT or MRI systems, both of which are versatile imaging technologies with capabilities and uses beyond the focus of our business. These systems, while versatile, are relatively expensive—a CT system can cost approximately \$1 million and an MRI system can cost up to approximately \$3 million. In addition, and in contrast to ultrasound systems, due to their limited number and the fact that they are usually fixed-in-place at major medical facilities, CT or MRI systems are frequently inaccessible to many patients. For example, CT or MRI systems are generally less accessible to primary care practices, rural clinics, economically developing markets, and patient bedsites. Table of Contents **Ultrasound** systems are more broadly available to patients than either CT or MRI systems. There are an estimated 1.6 million diagnostic ultrasound systems globally in use today. The global diagnostic ultrasound device market is anticipated to expand at a CAGR of 4.07% from 2022 to 2030, according to Grand View Research. Ultrasound systems are relatively inexpensive compared to CT and MRI systems, as smaller portable ultrasound systems can cost as little as approximately \$5,000 and the price of new cart-based ultrasound systems can range from approximately \$75,000 to \$200,000. These numbers include both portable and cart-based ultrasound systems, and cover all types of diagnostic ultrasound procedures, including systems intended for cardiology, prenatal and abdominal use. We do not currently intend to address cart-based ultrasound systems focused on applications in prenatal care, nor certain portable ultrasound applications such as emergency room medicine, where we believe our TAEUS technology may not substantially impact patient care. Accordingly, we estimate the addressable market for one or more of our current or future TAEUS applications to include approximately 700,000 ultrasound systems currently in use throughout the world, in addition to other types of capital equipment. We are conducting human clinical studies on our TAEUS Fatty Live Imaging Probe (FLIP) that enables ultrasound to distinguish fat from lean tissue. To demonstrate the other capabilities of our TAEUS platform, we have conducted various internal ex-vivo laboratory experiments and limited internal in-vivo large animal studies. Based on these experiments and studies, we have demonstrated that the TAEUS platform has the following capabilities and potential clinical applications:

- Tissue Composition:** Our TAEUS technology enables ultrasound to distinguish fat from lean tissue. This capability would enable the use of TAEUS-enhanced ultrasound for the early identification, staging and monitoring of NAFLD, a precursor to NASH, liver fibrosis, cirrhosis and liver cancer.
- Temperature Monitoring:** Our TAEUS technology enables traditional ultrasound to visualize changes in tissue temperature, in real time. This capability would enable the use of TAEUS-enhanced ultrasound to guide thermoablative therapy, which uses heat or cold to affect tissue, such as in the treatment of cardiac atrial fibrillation, or removal of cancerous liver and kidney lesions, with greater accuracy, and perform cosmetology procedures such as lipolysis of abdominal fat.
- Vascular Imaging:** Our TAEUS technology has the potential to enable visualization of blood vessels from any angle, using only a saline solution contrasting agent, unlike Doppler ultrasound, which requires precise viewing angles. This capability would enable the use of TAEUS-enhanced ultrasound to assist in identifying arterial plaques or malformed vessels.
- Tissue Perfusion:** Our TAEUS technology has the potential to image blood flow at the capillary level in a region, organ or tissue. This capability could be used to assist physicians in characterizing abnormalities in tissue perfusion symptomatic of damaged tissue, such as internal bleeding from trauma, or diseased tissue, such as certain cancers.

The first TAEUS application we intend to commercialize is our NAFLD TAEUS application addressing liver tissue composition. Our initial target market for this application is the European Union (EU) and United Kingdom. In September 2019, we announced the completion and reported top-level findings of an initial healthy subject study and data collection of 50 subjects, which was included in our TAEUS liver device technical file submission for device CE mark. We received CE mark approval for our TAEUS FLIP (Fatty Liver Imaging Probe) application in March 2020. We have registered the product in each of our primary target European markets (i.e., Germany, France, and the United Kingdom). In June 2020, we submitted a 510(k) Application to the FDA for our TAEUS FLIP System. In February 2022, we announced that we would pursue FDA reclassification and clearance of our TAEUS FLIP System through the FDA's de novo process. We subsequently voluntarily withdrew our 510(k) Application and submitted a de novo request for the TAEUS system to the FDA in the third quarter of 2023. In the fourth quarter of 2023, the FDA sent an Additional Information (AI) request related to our de novo application. Since we received the AI request, we have had several interactions with the FDA and have provided additional information. In order to fully respond to the FDA's questions, we will need to compile additional clinical data, provide additional device test data, and respond to cybersecurity related questions in a new de novo submission. We have a scheduled in-person pre-submission meeting with the FDA in the second quarter of 2024. We currently anticipate completing the necessary clinical studies by the fourth quarter of 2024 and submitting the new de novo request to the FDA in the first half of 2025.

Table of Contents After required regulatory approvals, our TAEUS technology can be added as an accessory to existing, commercially available ultrasound systems, helping to improve clinical decision-making on the front lines of patient care, without requiring substantially new clinical workflows or large capital investments. We are also developing TAEUS for possible incorporation into new medical equipment manufactured by original equipment manufacturers (OEMs), such as GE Healthcare and others, to enhance the utility of those OEM systems, as described more fully in our Annual Report on Form 10-K. Based on our design work and our understanding of the medical capital equipment market, we intend to price our initial liver TAEUS system at a price point of approximately \$65,000, which we believe could enable clinical purchasers to recoup their investment in less than one year by performing a relatively small number of additional procedures, initially paid out-of-pocket by patients until government and private insurance reimbursement is secured for the TAEUS liver procedures.

Recent Financial Results Below is a summary of certain preliminary estimates regarding our financial results for the quarter ended March 31, 2024. This preliminary financial information is based upon our estimates and is subject to completion of our financial closing procedures. Moreover, this preliminary financial information has been prepared solely on the basis of information that is currently available to, and that is the responsibility of, management. Our independent registered public accounting firm has not audited or reviewed, and does not express an opinion with respect to, this information. This preliminary financial information is not a comprehensive statement of our financial results for the quarter ended March 31, 2024, and remains subject to, among other things, the completion of our financial closing procedures, final adjustments, completion of our internal review and review by our independent registered public accounting firm of our financial statements for the quarter ended March 31, 2024. We expect for the quarter ended March 31, 2024 and did not have any revenue for the quarter ended March 31, 2023. We expect to record a net loss of approximately \$[] million for the quarter ended March 31, 2024, compared to a net loss of approximately \$2.9 million for the quarter ended March 31, 2023. As of March 31, 2024, we had total assets of approximately \$[] million and working capital of approximately \$[] million, including \$[] million of cash and cash equivalents.

Risk Factor Summary Our business is subject to many significant risks, as more fully described in the section titled "Risk Factors" immediately following this prospectus summary and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023 and any subsequently filed Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and in the other documents we file with the SEC, each of which are incorporated by reference into this prospectus. You should read and carefully consider these risks, together with all of the other information in this prospectus, including the financial statements and the related notes included herein, before deciding whether to invest in our securities. If any of the risks discussed in this prospectus actually occur, our business, prospects, financial condition or operating results could be materially and adversely affected. In particular, our risks include, but are not limited to, the following:

Table of Contents **3** Table of Contents **3** We have a history of operating losses and will need to raise significant additional capital to continue our business and operations. If

we are unable to raise capital or secure financing on favorable terms, or at all, to meet our capital and operating needs, we will be forced to delay or reduce our product development program and commercialization efforts, which would have a material adverse effect on our business. Our stock price has fluctuated in the past, has recently been volatile and may be volatile in the future for reasons unrelated to our operating performance or prospects, and as a result, investors in our common stock could incur substantial losses. Our stock is subject to minimum requirements to remain listed on the Nasdaq Capital Market, including a minimum bid price requirement, and may be delisted if it does not maintain compliance with those requirements. There is a limited market for our common stock. If securities or industry analysts do not publish research reports about our business, or if they issue an adverse opinion about our business, the price of our securities and trading volume could decline. We have not paid dividends in the past and have no plans to pay dividends. Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our at-the-market offering program or equity incentive plan, could result in dilution of the percentage ownership of our stockholders and could cause the price of our securities to fall. Our charter documents and Delaware law may inhibit a takeover that stockholders consider favorable. As an investor, you may lose all of your investment. Because the public offering price of our common stock offered herein or issuable upon the exercise of the warrants is substantially higher than the net tangible book value per share of our outstanding common stock following this offering, new investors will experience immediate and substantial dilution. Our management will have broad discretion over the use of the net proceeds from this offering, which we may not use effectively or in a manner with which you agree. There is no public market for the warrants. A warrant does not entitle the holder to any rights as common stockholders until the holder exercises the warrant for shares of our common stock. The warrants in this offering are speculative in nature. Corporate Information We were incorporated in Delaware in July 2007. Our corporate headquarters is located at 3600 Green Court, Suite 350, Ann Arbor, Michigan 48105-1570. Our website can be accessed at www.endrainc.com. The telephone number of our principal executive office is (734) 335-0468. The information contained on, or that may be obtained from, our website is not, and shall not be deemed to be, a part of this prospectus. 4 Table of Contents THE OFFERING Common stock offered by us [â—] shares. Common warrants offered by us Each share of common stock or pre-funded warrant is being offered together with (i) one Series A Warrant to purchase one share of common stock and (ii) one Series B Warrant to purchase one share of common stock. The Series A Warrants will have an exercise price of \$ per share (100% of the public offering price of one share of common stock and accompanying common warrants). The Series B Warrants will have an exercise price of \$ per share (100% of the public offering price of one share of common stock and accompanying common warrants). The Series A Warrants and Series B Warrants will become exercisable beginning on the effective date of the Warrant Shareholder Approval. The Series A Warrants will expire on the five-year anniversary of the Initial Exercise Date and the Series B Warrants will expire on the twelve-month anniversary of the Initial Exercise Date. The common warrants may be redeemed by the Company, in whole or in part, at a price of \$0.0001 per warrant, by giving not less than 30 daysâ€™ prior notice to the holders of such common warrants at any time after the date on which (i) the daily volume weighted average trading price of the Companyâ€™s common stock has equaled or exceeded \$[â—] (150% of the exercise price) for 10 consecutive trading days and (ii) the average daily trading volume of the shares of the Companyâ€™s common stock for such 10-trading day period exceeds \$150,000 of shares, as determined in accordance with the terms of the common warrants. The shares of common stock or the pre-funded warrants, as applicable, sold in this offering and the accompanying common warrants, can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance. This offering also relates to the offering of the shares of common stock issuable upon exercise of the warrants. The exercise price and number of shares of common stock issuable upon exercise will be subject to certain further adjustments as described herein. See â€œDescription of Securitiesâ€. We are also registering the issuance of (i) the [â—] shares of our common stock underlying the Series A Warrants and (ii) the [â—] shares of our common stock underlying the Series B Warrants. Pre-funded warrants offered by us We are also offering pre-funded warrants to purchase up to [â—] shares of common stock, which may be sold in lieu of the shares of common stock included in this offering. The purchase price of each pre-funded warrant and accompanying common warrants is equal to the price at which the share of common stock and accompanying warrants are being sold to the public in this offering, minus \$0.0001, and the exercise price of each pre-funded warrant is \$0.0001 per share. The pre-funded warrants are exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. For each pre-funded warrants we sell, the number of shares of common stock we are offering will be decreased on a one-for-one basis. This offering also relates to the shares of common stock issuable upon exercise of the pre-funded warrants sold in this offering. Underwriter warrants In connection with our public offering, we have granted to the underwriter an option to purchase, for nominal consideration, warrants to purchase shares equal to 5.0% of the shares of common stock, and if applicable, pre-funded warrants sold in this offering (the â€œUnderwriter Warrantsâ€). The Underwriter Warrants have an exercise price of \$[â—] per share of common stock (120% of public offering price of one share of common stock and accompanying common warrants). The Underwriter Warrants will be exercisable immediately upon issuance and will expire three and one-half years from the commencement of sales in this offering. See â€œDescription of Securitiesâ€. We are also registering the [â—] shares of common stock issuable upon exercise of the Underwriter Warrants. Common stock outstanding immediately prior to this offering 11,035,659 shares. Common stock outstanding immediately after giving effect to this offering [â—] shares (assuming no pre-funded warrants are issued in this offering and none of the warrants issued in this offering are exercised). Use of proceeds We estimate the net proceeds from this offering to us will be approximately \$[â—] million, assuming a public offering price of \$0.2334 per share and accompanying warrants, which is the last reported sale price of our common stock on the Nasdaq Capital Market on April 18, 2024, and after deducting the estimated underwriting discounts and commissions and expected offering expenses payable by us. We intend to use the net proceeds from this offering for working capital and general corporate purposes. See the section titled â€œUse of Proceedsâ€. Nasdaq Capital Market symbol NDRA There is no established trading market for the common warrants or pre-funded warrants and we do not expect a market to develop. In addition, we do not intend to apply for the listing of the common warrants or pre-funded warrants on any national securities exchange or other trading market. Without an active trading market, the liquidity of the common warrants and pre-funded warrants will be limited. Risk factors See the section titled â€œRisk Factorsâ€ and other information included in this prospectus for a discussion of factors you should consider before investing in our securities. 5 Table of Contents The number of shares of our common stock to be outstanding after this offer is based on 11,035,659 shares of common stock outstanding as of April 18, 2024 and excludes the following: 882,349 shares of common stock issuable upon the exercise of outstanding warrants at a weighted-average exercise price of \$1.58 per share; 2,010 shares of common stock issuable upon the conversion of outstanding shares of Series A Convertible Preferred Stock; 624,240 shares of common stock issuable upon the exercise of outstanding stock options issued pursuant to our 2016 Omnibus Incentive Plan (the â€œIncentive Planâ€) at a weighted average exercise price of \$19.25 per share; and 2,381,416 shares of common stock reserved for future issuance under the Incentive Plan. 6 Table of Contents RISK FACTORS Investing in our securities involves risks. Before you make a decision to buy our securities, in addition to the risks and uncertainties discussed above under â€œCautionary Noteâ€ Regarding Forward-Lookingâ€ Statements, you should read and consider carefully the following risk factors as well as the risk factors described under the section captioned â€œRisk Factorsâ€ contained in our Annual Report on Form 10-K for the year ended December 31, 2023, which is incorporated by reference in this prospectus, together with the other information contained in or incorporated by reference in this prospectus, including our consolidated financial statements and the related notes. Each of these risk factors, either alone or taken together, could adversely affect our business, operating results and

financial condition, as well as adversely affect the value of an investment in our common stock. There may be additional risks that we do not presently know of or that we currently believe are immaterial, which could also impair our business and financial position. If any of the events described below were to occur, our financial condition, our ability to access capital resources, our results of operations and/or our future growth prospects could be materially and adversely affected, and the market price of our common stock could decline. As a result, you could lose some or all of any investment you may make in our securities. **Risks Related to this Offering and Our Securities** Our stock price has fluctuated in the past, has recently been volatile and may be volatile in the future for reasons unrelated to our operating performance or prospects, and as a result, investors in our common stock could incur substantial losses. Our stock price has fluctuated in the past, has recently been volatile and may be volatile in the future. From January 1, 2023 through April 18, 2024, intra-day trading prices of shares of our common stock on the Nasdaq Capital Market fluctuated from a low of \$0.221 to a high of \$5.39, and may continue to fluctuate significantly in the future. The stock market in general and the market for healthcare companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may experience losses on their investment in our common stock. Additionally, securities of certain companies have experienced significant and extreme volatility in stock price due to a sudden increase in demand for stock resulting in aggregate short positions in the stock exceeding the number of shares available for purchase, forcing investors with short exposure to pay a premium to repurchase shares for delivery to share lenders. This is known as a "short squeeze." These short squeezes have led to the price per share of those companies to trade at a significantly inflated rate that is disconnected from the underlying value of the company. Many investors who have purchased shares in those companies at an inflated rate face the risk of losing a significant portion of their original investment as the price per share declines steadily as interest in those stocks abates. While we have no reason to believe our shares would be the target of a short squeeze, there can be no assurance that they will not be in the future, and you may lose a significant portion or all of your investment if you purchase our shares at a rate that is significantly disconnected from our underlying value. Our stock is subject to minimum requirements to remain listed on the Nasdaq Capital Market, including a minimum bid price requirement, and may be delisted if it does not maintain compliance with those requirements. A reverse stock split, if approved by our stockholders and effected by the Company, may not increase our stock price and have the desired effect of maintaining compliance with the rules of Nasdaq. Nasdaq Marketplace Rule 5550(a)(2) requires a minimum bid price of \$1.00 per share for primary equity securities listed on the Nasdaq Capital Market (the "Minimum Bid Price Requirement"). If the closing price of our common stock on the Nasdaq Capital Market remains below \$1.00, we may receive a notification from the Listing Qualifications Department of Nasdaq notifying the Company of that it no longer meets the Minimum Bid Price Requirement and is subject to delisting if it is not able to regain compliance in a prescribed amount of time (which would be 180 days, pursuant to Nasdaq Marketplace Rule 5810). **Table of Contents** We may undertake a reverse stock split in order to increase the market price of our common stock so that we are able to regain compliance with the Minimum Bid Price Requirement. The common warrants offered hereby are subject to adjustment in connection with a reverse stock split in the event that the lowest daily volume weighted average price of our common stock on the Nasdaq Capital Market during the five trading days following the reverse stock split is lower than the exercise price of the warrants, in which case the exercise price of the warrants will be reduced and the number of shares underlying the warrants will be increased. However, the effect of the reverse stock split upon the market price of our common stock cannot be predicted with any certainty, and the history of similar reverse stock splits for companies in like circumstances is varied. The price per share of our common stock after the reverse stock split may not reflect the exchange ratio implemented by the Board of Directors and the price per share following the effective time of the reverse stock split may not be maintained for any period of time following the reverse stock split. If the reverse stock split is consummated and the trading price of the common stock declines, the percentage decline as an absolute number and as a percentage of our overall market capitalization may be greater than would occur in the absence of the reverse stock split. Even if the market price per post-reverse stock split share of our common stock remains in excess of \$1.00 per share, we may be delisted due to a failure to meet other continued listing requirements, including Nasdaq requirements related to the minimum stockholders' equity, the minimum number of shares that must be in the public float, the minimum market value of the public float and the minimum number of round lot holders. We cannot assure you that we will regain compliance with the Minimum Bid Price Rule or, if we do regain compliance, that we will remain in compliance with all applicable requirements for continued listing on the Nasdaq Capital Market. If we fail to sustain compliance with all applicable requirements for continued listing on the Nasdaq Capital Market, our common stock may be subject to delisting by Nasdaq. This could inhibit the ability of stockholders of to trade their shares of common stock in the open market, thereby severely limiting the liquidity of such shares. **There is a limited market for our common stock.** Although our common stock is traded on the Nasdaq Capital Market, the volume of trading has historically been limited. Our average daily trading volume of our shares from January 1, 2023 to December 31, 2023 was approximately 66,369 shares. Thinly traded stock can be more volatile than stock trading in a more active public market. While we have made efforts to increase trading in our stock, we cannot predict the extent to which an active public market for our common stock will develop or be sustained. Therefore, a holder of our common stock who wishes to sell his or her shares may not be able to do so immediately or at an acceptable price. If securities or industry analysts do not publish research reports about our business, or if they issue an adverse opinion about our business, the price of our securities and trading volume could decline. The trading market for our securities is influenced by the research and reports that industry or securities analysts publish about us or our business. If any of the securities or industry analysts who cover us or may cover us in the future change their recommendation regarding our common stock adversely, or provide more favorable relative recommendations about our competitors, the price of our common stock would likely decline. If any securities or industry analyst who covers us or may cover us in the future were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the price or trading volume of our common stock to decline. We have not paid dividends in the past and have no plans to pay dividends. We plan to reinvest all of our earnings, to the extent we have earnings, in order to further develop our technology and potential products and to cover operating costs. We do not plan to pay any cash dividends with respect to our securities in the foreseeable future. We cannot assure you that we will, at any time, generate sufficient surplus cash that would be available for distribution to the holders of our common stock as a dividend. Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plan and our at-the-market equity offering program, could result in dilution of the percentage ownership of our stockholders and could cause the price of our securities to fall. We expect that significant capital will be needed in the future to continue our planned operations. To the extent we raise capital by issuing common stock, convertible securities or other equity securities, our stockholders may experience substantial dilution, and new investors could gain rights superior to our existing stockholders. **Table of Contents** Our charter documents and Delaware law may inhibit a takeover that stockholders consider favorable. Certain provisions of our Fourth Amended and Restated Certificate of Incorporation, as amended (our "Certificate of Incorporation") and Amended and Restated Bylaws (our "Bylaws") and applicable provisions of Delaware law may delay or discourage transactions involving an actual or potential change in control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. The provisions in our Certificate of Incorporation and Bylaws: **authorizes our board of directors to issue preferred stock without stockholder approval and to designate the rights, preferences and privileges of each class; if issued, such preferred stock would increase the number of outstanding shares of our capital stock and could include terms that may deter an acquisition of us;** **limits who may call stockholder meetings;** **does not provide for cumulative voting rights;** **provides that all vacancies in our**

board of directors may be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum; and provide that stockholders must comply with advance notice procedures with respect to stockholder proposals and the nomination of candidates for director; and provide that stockholders may only amend our Certificate of Incorporation upon a supermajority vote of stockholders; and provide that the Court of Chancery of the State of Delaware will be the exclusive forum for certain legal claims. In addition, section 203 of the Delaware General Corporation Law limits our ability to engage in any business combination with a person who beneficially owns 15% or more of our outstanding voting stock unless certain conditions are satisfied. This restriction lasts for a period of three years following any such person's share acquisition. These provisions may have the effect of entrenching our management team and may deprive stockholders of the opportunity to sell their shares to potential acquirers at a premium over prevailing prices. This potential inability to obtain a control premium could reduce the price of our common stock. As an investor, you may lose all of your investment. Investing in our securities involves a high degree of risk. As an investor, you may never recoup all, or even part, of your investment and you may never realize any return on your investment. You must be prepared to lose all of your investment. Our management will have broad discretion over the use of the net proceeds from this offering, which we may not use effectively or in a manner with which you agree. Our management will have broad discretion as to the use of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of this offering. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for our company. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value. 9 Table of Contents The common warrants are not exercisable until shareholder approval and, in certain cases, may be redeemed by the Company prior to their expiration. The Series A Warrants and Series B Warrants are not exercisable unless and until the Warrant Shareholder Approval is obtained from our stockholders. While we intend to promptly seek Warrant Shareholder Approval, there is no guarantee that the Warrant Shareholder Approval will ever be obtained. If we are unable to obtain the Warrant Shareholder Approval, the common warrants may have no value. Additionally, the Company may redeem such common warrants for a nominal price upon 30 days prior notice to holders of the common warrants in certain circumstances. In the event that the trading price of the common stock is then lower than the applicable exercise price, or if the trading price of the common stock decreases to below the applicable exercise price due to large amounts of investors exercising their common warrants at such time, or the market's expectation that such exercises will occur, then the warrants may be out-of-the-money and you may choose not to exercise them prior to redemption by the Company. There is no public market for the warrants. There is no established public trading market for the warrants in this offering, and we do not expect a market to develop. In addition, the warrants are not listed, and we do not intend to apply for listing of the warrants, on any securities exchange or trading system. Without an active market, the liquidity of the warrants is limited, and investors may be unable to liquidate their investments in the warrants. A warrant does not entitle the holder to any rights as common stockholders until the holder exercises the warrant for shares of our common stock. Until you acquire shares of our common stock upon exercise of your warrants, the warrants will not provide you any rights as a common stockholder. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs on or after the exercise date. The common warrants in this offering are speculative in nature. The common warrants in this offering do not confer any rights of common stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of common stock at a fixed price during a fixed period of time. Specifically, only following receipt of the Warrant Shareholder Approval, holders of the common warrants may exercise their right to acquire common stock and pay an exercise price of \$ per share of common stock. The Series A Warrants will expire on the five-year anniversary of the date of Initial Exercise Date and the Series B Warrants will expire on the twelve-month anniversary of the Initial Exercise Date, and each series of common warrants may be subject to early redemption by the Company for a nominal price. Moreover, following this offering, the market value of the common warrants, if any, is uncertain and there can be no assurance that the market value of the common warrants will equal or exceed their imputed offering price. There can also be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the common warrants and, consequently, whether it will ever be profitable for holders of the common warrants to exercise the common warrants. 10 Table of Contents USE OF PROCEEDS We estimate that the net proceeds to us from the issuance and the sale of the securities in this offering will be approximately \$[] million, based on the assumed public offering price of \$0.2334 per share and accompanying common warrants, the last reported sale price of our common stock on the Nasdaq Capital Market on April 18, 2024, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We will receive only nominal additional proceeds, if any, from the exercise of the pre-funded warrants. We intend to use the net proceeds from this offering for working capital and general corporate purposes. We have not yet determined the amount of net proceeds to be used specifically for any particular purpose or the timing of these expenditures. The expected use of net proceeds from this offering represents our intentions based upon our present plans and business conditions. We cannot predict with certainty all of the particular uses for the proceeds of this offering or the amounts that we will actually spend on the uses set forth above. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business. Pending our use of the net proceeds from this offering, we intend to maintain the net proceeds as cash deposits or cash management instruments, such as U.S. government securities or money market mutual funds. 11 Table of Contents DILUTION As of December 31, 2023, our historical net tangible book value was \$5.7 million, or \$0.51 per share of our common stock. Our historical net tangible book value per share represents total tangible assets less total liabilities divided by the number of shares of our common stock outstanding on December 31, 2023. Our as adjusted net tangible book value represents our historical net tangible book value as adjusted to give effect to the sale of 21,422,451 shares of our common stock in this offering (assuming no issuance of pre-funded warrants) at an assumed public offering price of \$0.2334 per share and accompanying warrants, which is based on the last reported sales price of our common stock on the Nasdaq Capital Market on April 18, 2024, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We determine dilution, or accretion, per share to investors participating in this offering by subtracting as adjusted net tangible book value per share after this offering from the assumed public offering price per share and accompanying common warrants paid by investors participating in this offering. The following table illustrates this per share accretion: Assumed public offering price per share \$ 0.2334 Historical net tangible book value per share as of December 31, 2023 \$ 0.51 Decrease in as adjusted net tangible book value per share attributable to new investors (0.21) As adjusted net tangible book value per share \$ 0.31 Accretion per share to new investors participating in this offering \$ 0.07 \$ 0.10 increase or decrease in the assumed public offering price of \$0.2334 per share and accompanying warrants, which is based on the last reported sales price of our common stock on the Nasdaq Capital Market on April 18, 2024, would increase or decrease, as applicable, our as adjusted net tangible book value as of December 31, 2023 after this offering by \$2.0 million, or \$0.06 per share, and would increase or decrease accretion to investors in this offering by \$0.04 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase of 2.0 million shares in the number of shares we are offering would increase our as adjusted net tangible book value as of December 31, 2023 after this offering by \$0.4 million, or

\$0.01 per share and would decrease accretion to investors in this offering by \$0.01 per share assuming the assumed public offering price per share remains the same, and after deducting the underwriting discount and commissions and estimated offering expenses payable by us. Each decrease of 2.0 million shares in the number of shares we are offering would decrease our as adjusted net tangible book value as of December 31, 2023 after this offering by \$0.4 million, or \$0.01 per share and would increase accretion to investors in this offering by \$0.01 per share assuming the assumed public offering price per share remains the same, and after deducting the underwriting discount and commissions and estimated offering expenses payable by us. The as adjusted information is illustrative only, and we will adjust this information based on the actual public offering price and other terms of this offering determined at pricing. The foregoing tables and calculations (other than the historical net tangible book value calculation) are based on 11,035,659 shares of our common stock outstanding as of December 31, 2023, and excludes the shares issuable under our warrants and options outstanding as of December 31, 2023, as follows: 882,349 shares of common stock issuable upon the exercise of outstanding warrants at a weighted-average exercise price of \$1.58 per share; 2,010 shares of common stock issuable upon the conversion of outstanding shares of Series A Convertible Preferred Stock; 624,240 shares of common stock issuable upon the exercise of outstanding stock options issued pursuant to the Incentive Plan at a weighted average exercise price of \$19.25 per share; and 2,381,416 shares of common stock reserved for future issuance under the Incentive Plan. Additionally, the foregoing tables and calculations (other than the historical net tangible book value calculation) assume no exercise of the common warrants and underwriters warrants sold in this offering.

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DESCRIPTION OF OUR SECURITIES

We are a Delaware company and our affairs are governed by our amended and restated certificate of incorporation and bylaws, the DGCL and the common law of the State of Delaware.

The following summary is not complete and is subject to, and is qualified in its entirety by reference to, the provisions of amended and restated certificate of incorporation and bylaws, copies of which are filed as exhibits to the Registration Statement of which this prospectus forms a part.

Securities Offered by Us in this Offering

We are offering [] shares of common stock or pre-funded warrants to purchase up to an aggregate of [] shares of common stock in lieu of shares of common stock to those purchasers whose purchase of shares of common stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding shares of common stock following the consummation of this offering, together with common warrants to purchase up to [] shares of common stock. For each pre-funded warrant that we sell, the number of shares of common stock that we are selling will be decreased on a one-for-one basis. Each common warrant has an exercise price of \$ [] per share. The shares of common stock and the common warrants are immediately separable and will be issued separately but must initially be purchased together in this offering.

Warrants to be Issued as Part of this Offering

Common warrants

The common warrants will be issued in the respective forms filed as an exhibit to the registration statement of which this prospectus is a part and the following summary is subject to and qualified in its entirety by the filed exhibits. You should review a copy of each form of common warrant for a complete description of the terms and conditions applicable to the common warrants.

The following is a brief summary of the common warrants and is still subject in all respect to the provisions contained in the form of common warrant.

Duration and Exercise Price

Each common warrant offered hereby has an initial exercise price per share equal to \$ [] . The exercise price of the common warrants will be determined at the time of pricing based on negotiations with the underwriters. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock and also upon any distributions of assets, including cash, stock or other property to our stockholders.

The common warrants will be issued separately from the common stock and pre-funded warrants included in this offering. Each share of our common stock or pre-funded warrant purchased in this offering will include a Series A Warrant and Series B Warrant, each to purchase one share of our common stock. The Series A Warrants and Series B Warrants will be issued in certificated form only.

Exercisability

The Series A Warrants and Series B Warrants are not exercisable until the effective date of the Warrant Shareholder Approval, if such approval is obtained. The Series A Warrants will expire on the five-year anniversary of the Initial Exercise Date and the Series B Warrants will expire on the twelve-month anniversary of the Initial Exercise Date.

Each common warrant will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full of the exercise price in immediately available funds for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below).

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Cashless Exercise

If at the time a holder exercises its common warrant, a registration statement registering the issuance of common stock underlying the common warrants under the Securities Act is not then effective or available, in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the number of shares of common stock determined according to a formula set forth in the common warrants.

Company Redemption Option

The Series A Warrants and Series B Warrants are redeemable by the Company in certain circumstances. Subject to certain exceptions, if, (i) the daily volume weighted average trading price of the Company's common stock has equaled or exceeded \$[] (150% of the exercise price) for 10 consecutive trading days and (ii) the average daily trading volume of the shares of the Company's common stock for such 10-trading day period exceeds \$150,000 of shares, then we may, within one trading day of the end of such ten (10) Trading Days referred to above, upon notice (a "Redemption Notice"), call for redemption or cancellation of all or any portion of the warrants for which a notice of exercise has not yet been delivered for consideration equal to \$0.0001 per warrant share. Any portion of a warrant subject to such Redemption Notice for which a notice of exercise shall not have been received by the Redemption Date (as hereinafter defined) will be canceled at 6:30 p.m. (New York City time) on the thirtieth calendar day after the date the Redemption Notice is sent by the Company (such date and time, the "Redemption Date"). Our right to call the warrants shall be exercised ratably among the holders based on each holders initial purchase of warrants.

Share Combination Event Adjustments

Subject to the Warrant Shareholder Approval, if at any time on or after the date of issuance there occurs any share split, share dividend, share combination recapitalization or other similar transaction involving our common stock and the lowest daily volume weighted average price during the five consecutive trading days following the date of such event (the "Event Market Price") is less than the exercise price then in effect, then the exercise price shall be reduced to the lowest daily volume weighted average price during such period and the number of warrant shares issuable shall be increased such that the aggregate exercise price payable thereunder, after taking into account the decrease in the exercise price, shall be equal to the aggregate exercise price on the date of issuance. If one or more share combination events occurs prior to the Warrant Shareholder Approval being obtained and a reduction of the exercise price would have been effected but for such shareholder approval not yet having been obtained, then the exercise price will automatically be reduced to the lowest Event Market Price with respect to any share combination event that occurred prior to the Warrant Shareholder Approval being obtained and the issuable shares will automatically be adjusted to equal the highest such number with respect to any share combination event that occurred prior to the Warrant Shareholder Approval being obtained.

Certain Adjustments

The exercise price and the number of shares issuable upon exercise of the common warrants is subject to appropriate adjustment in the event of stock splits, stock dividends, recapitalizations, reorganizations, schemes, arrangements or similar events affecting our common stock. The common warrant holders must pay the exercise price in cash or wire transfer of immediately available funds upon exercise of the common warrants, unless such holders are utilizing the cashless exercise provision of the common warrants, which is only available in certain circumstances such as if the underlying shares are not registered with the SEC pursuant to an effective registration statement. We intend to use commercially reasonable best efforts to have the registration statement of which this prospectus forms a part, effective when the

common warrants are exercised. □ Fundamental Transactions □ In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the common warrants will be entitled to receive upon exercise of the common warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the common warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the common warrants.

Additionally, as more fully described in the Series A Warrant, in the event of certain fundamental transactions, the holders of the Series A Warrants will be entitled to receive consideration in an amount equal to the Black Scholes value of the Series A Warrants on the date of consummation of such transaction. □ □ 14 Table of Contents □ Transferability □ Subject to applicable laws, a common warrant may be transferred at the option of the holder upon surrender of the common warrant to us together with the appropriate instruments of transfer. □ Exchange Listing □ There is no established trading market for the common warrants. In addition, we do not intend to apply for the listing of the common warrants on any national securities exchange. Without an active trading market, the liquidity of the common warrants will be limited. □ Right as a Stockholder □ Except as otherwise provided in the common warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the common warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their common warrants. □ Waivers and Adjustments □ Subject to certain exceptions, any terms of the common warrants may be amended or waived with our written consent and the written consent of the holder. □ Pre-funded warrants □ The pre-funded warrants will be issued in a form filed as an exhibit to the registration statement of which this prospectus is a part and the following summary is subject to and qualified in its entirety by the filed exhibit. You should review a copy of the form of pre-funded warrant for a complete description of the terms and conditions applicable to the pre-funded warrants. □ Duration and Exercise Price □ The pre-funded warrants offered hereby will have an exercise price of \$0.0001 per share. The pre-funded warrants will be immediately exercisable upon issuance and may be exercised at any time until the pre-funded warrants are exercised in full. The exercise prices and numbers of shares of common stock issuable upon exercise are subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock. The pre-funded warrants will be issued in certificated form only. □ Exercisability □ The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise. A holder (together with its affiliates) may not exercise any portion of such holder's pre-funded warrants to the extent that the holder would own more than 4.99% (or 9.99%, at the holder's election) of our outstanding common stock immediately after exercise, except that upon notice from the holder to us, the holder may decrease or increase the limitation of ownership of outstanding stock after exercising the holder's pre-funded warrants up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants, provided that any increase in such limitation shall not be effective until 61 days following notice to us. □ □ Fundamental Transactions □ In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the pre-funded warrants. □ □ 15 Table of Contents □ Transferability □ Subject to applicable laws and the restriction on transfer set forth in the pre-funded warrant, the pre-funded warrant may be transferred at the option of the holder upon surrender of the pre-funded warrant to us together with the appropriate instruments of transfer. □ Exchange Listing □ There is no established trading market for the pre-funded warrants. In addition, we do not intend to apply for the listing of the pre-funded warrants on any national securities exchange. Without an active trading market, the liquidity of the pre-funded warrants will be limited. □ Right as a Stockholder □ Except as otherwise provided in the pre-funded warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the pre-funded warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their pre-funded warrants. □ Waivers and Adjustments □ Subject to certain exceptions, any terms of the pre-funded warrants may be amended or waived with our written consent and the written consent of the holder. □ Underwriter Warrants □ The following summary of certain terms and provisions of the Underwriter Warrants that are being issued hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Underwriter Warrants, the form of which will be filed as an exhibit to the registration statement of which this prospectus forms a part. Prospective investors should carefully review the terms and provisions of the form of Underwriter Warrant for a complete description of the terms and conditions of the Underwriter Warrant. □ Duration and Exercise Price □ Each Underwriter Warrant offered hereby will have an initial exercise price equal to 120% of the exercise price of the common warrants issued in this offering. The Underwriter Warrants will be immediately exercisable and will expire three and one-half years from the commencement of sales in this offering. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price. □ Exercisability □ The Underwriter Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Underwriter Warrant to the extent that the holder would own more than 4.99% of the outstanding common stock immediately after exercise, except that upon at least 61 days prior notice from the holder to us, the holder may increase the amount of beneficial ownership of outstanding stock after exercising the holder's Underwriter Warrant up to 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Underwriter Warrants and in accordance with the rules and regulations of the SEC. □ □ 16 Table of Contents □ Cashless Exercise □ If, at the time a holder exercises its Underwriter Warrants, a registration statement registering the issuance of the shares of common stock underlying the Underwriter Warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the Underwriter Warrants. □ Fractional Shares □ No fractional shares of common stock will be issued upon the exercise of the Underwriter Warrants. Rather, the number of shares of common stock to be issued will be rounded to the nearest whole number. □ Transferability □ Subject to applicable laws, an Underwriter Warrant may be transferred at the option of the holder upon surrender of the Underwriter Warrant to us together with the appropriate instruments of transfer. □ Trading Market □ There is no trading market available for the Underwriter Warrants on any securities exchange or nationally recognized trading system, and we do not expect a trading market to develop. We do not intend to list the Underwriter Warrants on any securities exchange or other trading market. Without a trading market, the liquidity of the Underwriter Warrants will be extremely limited. We plan to list the common stock issuable upon exercise of the Underwriter Warrants on the Nasdaq Capital Market. □ Right as a Stockholder □ Except as otherwise provided in the Underwriter Warrants

or by virtue of such holderâ€™s ownership of shares of our common stock, the holders of the Underwriter Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Underwriter Warrants. A Fundamental Transaction A In the event of a fundamental transaction, as described in the Underwriter Warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the Underwriter Warrants will be entitled to receive upon exercise of the Underwriter Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Underwriter Warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction which is approved by our Board, the holders of the Underwriter Warrants have the right to require us or a successor entity to redeem the Underwriter Warrant for cash in the amount of the Black-Scholes value of the unexercised portion of the Underwriter Warrant on the date of the consummation of the fundamental transaction. In the event of a fundamental transaction which is not approved by our Board, the holders of the Underwriter Warrants have the right to require us or a successor entity to redeem the Underwriter Warrants for the consideration paid in the fundamental transaction in the amount of the Black Scholes value of the unexercised portion of the Underwriter Warrant on the date of the consummation of the fundamental transaction. A Authorized and Outstanding Capital Stock A We currently have authority to issue 80,000,000 shares of our common stock, par value of \$0.0001A per share. As of April 18, 2024, 11,035,659 shares of our common stock were issued and outstanding, held of record by 23A stockholders. Our authorized but unissued shares of common stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange or automated quotation system on which our securities may be listed or traded. A A 17 Table of Contents A Voting Rights A Each holder of our common stock is entitled to one vote for each such share outstanding in the holderâ€™s name. A A No holder of common stock is entitled to cumulate votes in voting for directors. A Dividend and Liquidation Rights A The holders of outstanding shares of our common stock are entitled to such dividends as may be declared by our board of directors out of funds legally available for such purpose. The shares of our common stock are neither redeemable nor convertible. Holders of our common stock have no preemptive or subscription rights to purchase any of our securities. In the event of our liquidation, dissolution or winding up, the holders of our common stock are entitled to receive pro rata our assets, which are legally available for distribution, after payments of all debts and other liabilities. A All of the outstanding shares of our common stock are fully paid and non-assessable. A A A We have never paid any cash dividends on our common stock. A Certain Anti-Takeover Provisions of Delaware Law A The provisions of Delaware law, the Certificate of Incorporation and the Bylaws could have the effect of delaying, deferring or discouraging another person from acquiring control of us. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms. A Delaware Law A We are subject to Section 203 of the Delaware General Corporation Law (the â€œDGCLâ€), an anti-takeover law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination (as defined below) with any interested stockholder (as defined below) for a period of three years following the date that the stockholder became an interested stockholder, unless: A A A prior to that date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; A A A A upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the voting stock owned by the interested stockholder) those shares owned by persons who are directors and officers and by excluding employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or A A A A on or subsequent to the time the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder. A In general, Section 203 defines â€œbusiness combinationâ€ to include the following: A A A any merger or consolidation involving the corporation and the interested stockholder; A A A A any sale, lease, exchange, mortgage, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder; A A A A subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; A A A A subject to limited exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or A A A A the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation. A A 18 Table of Contents A Section 203 generally defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation, or who beneficially owns 15% or more of the outstanding voting stock of the corporation at any time within a three-year period immediately prior to the date of determining whether such person is an interested stockholder, and any entity or person affiliated with or controlling or controlled by any of these entities or persons. A Certificate of Incorporation and Bylaw Provisions A The Certificate of Incorporation and the Bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of us. Certain of these provisions are summarized in the following paragraphs. A Effects of authorized but unissued common stock. One of the effects of the existence of authorized but unissued common stock may be to enable our board of directors to make more difficult or to discourage an attempt to obtain control of our Company by means of a merger, tender offer, proxy contest or otherwise, and thereby to protect the continuity of management. If, in the due exercise of its fiduciary obligations, the board of directors were to determine that a takeover proposal was not in our best interest, such shares could be issued by the board of directors without stockholder approval in one or more transactions that might prevent or render more difficult or costly the completion of the takeover transaction by diluting the voting or other rights of the proposed acquirer or insurgent stockholder group, by putting a substantial voting block in institutional or other hands that might undertake to support the position of the incumbent board of directors, by effecting an acquisition that might complicate or preclude the takeover, or otherwise. A Cumulative Voting. Our Certificate of Incorporation does not provide for cumulative voting in the election of directors, which would allow holders of less than a majority of the stock to elect some directors. A Vacancies. Our Certificate of Incorporation provides that all vacancies may be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum. A Special Meeting of Stockholders. A special meeting of stockholders may only be called by the Chairman of the board of directors, the President, the Chief Executive Officer, or the board of directors at any time and for any purpose or purposes as shall be stated in the notice of the meeting, or by request of the holders of record of at least 20% of the outstanding shares of common stock. This provision could prevent stockholders from calling a special meeting because, unless certain significant stockholders were to join with them, they might not obtain the percentage necessary to request the meeting. Therefore, stockholders holding less than 20% of the issued and outstanding common stock, without the assistance of management, may be unable to propose a vote on any transaction that would delay, defer or prevent a change of control, even if the transaction were in the best interests of our stockholders. A Transfer Agent A The transfer agent for our common stock is VStock Transfer, LLC. A Listing of Securities A Our common stock is listed on the Nasdaq Capital Market under the symbol â€œNDRA.â€ A A 19 Table of Contents A

UNDERWRITING Â We are offering the shares of our common stock and common warrants described in this prospectus through the underwriter listed below. Craig- Hallum Capital Group LLC, or the Representative, is acting as the representative of the underwriters in this offering. Subject to the terms and conditions of the underwriting agreement, dated as of [â€¢], 2024, the underwriters have agreed to purchase the number of our securities set forth opposite its respective name below. Each share will be accompanied by a Series A Warrant and a Series B Warrant. The underwriter is committed to purchase and pay for all of the shares and warrants if any are purchased. Craig-Hallum Capital Group LLC is the sole underwriter. Â Â Underwriter Â Number of shares and common warrants Â Number of pre-funded warrants and common warrants Craig-Hallum Capital Group LLC Â Â Total Â Â Â Â The underwriter has advised us that they propose to offer the shares of common stock and accompanying warrants to the public at a price of \$ per set of securities. The underwriter proposes to offer the shares of common stock and warrants to certain dealers at the same price less a concession of not more than \$ per set of securities. If all of the shares and warrants are not sold at the public offering price, the underwriter may change the offering price and other selling terms. Â The underwriter is offering the shares and warrants, subject to prior sale, when, as and if issued to and accepted by it, subject to approval of legal matters by its counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriter of officersâ€™ certificates and legal opinions. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. The underwriter has advised us that it does not intend to confirm sales to any accounts over which it exercises discretionary authority. Â The securities sold in this offering are expected to be ready for delivery on or about , 2024, against payment in immediately available funds. Â The table below summarizes the underwriting discounts that we will pay to the underwriter. In addition to the underwriting discount, we have agreed to reimburse up to \$100,000 of the fees and expenses of the underwriter, which includes the fees and expenses of counsel to the underwriter, in connection with this offering. The fees and expenses of the underwriter that we have agreed to reimburse are not included in the underwriting discounts set forth in the table below. The underwriting discount and reimbursable expenses the underwriter will receive were determined through armsâ€™ length negotiations between us and the underwriter. Â Â Per shareÂ and accompanying warrants Â Â Per pre-funded warrant and accompanying warrants Â Â Total Â Public offering price Â \$ Â Â \$ Â Â \$ Â Underwriting discounts and commissions(1) Â \$ Â Â \$ Â Â \$ Â Proceeds, before expenses, to us Â \$ Â Â \$ Â Â \$ Â _____ (1) The underwriter will receive an underwriting discount of 7.0% of the aggregate gross proceeds hereunder. Â We estimate that the total expenses of this offering, excluding underwriting discounts, will be approximately \$[â—]. This includes \$100,000 of fees and expenses of the underwriter which are payable by us. Â Â 20 Table of Contents Â Lock-Up Agreements Â We and each of our directors and officers have agreed with the underwriter to be subject to a lock up period of 90 days following the closing of this offering. This means that, during the applicable lock-up period, we and such persons may not offer for sale, contract to sell, or sell any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock, subject to certain customary exceptions. The underwriter may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements. In addition, we have agreed not enter into variable rate financings for a period of 180 days following the closing date of this offering, except that, in the event that the gross proceeds of this offering are less than \$6.0 million, we may sell shares of our common stock under our existing at-the-market offering program with Ascendant Capital Markets, LLC after 90 days from the date of this prospectus, subject to certain limitations. Â Â Underwriter Warrants Â We have also agreed to sell for a nominal price to the Representative or its designees at the closing of this offering, warrants to purchase a number of shares of common stock equal to 5.0% of the aggregate number of shares of common stock and pre-funded warrants sold in this offering, at an exercise price equal to 120% of the exercise price of the Series A Warrants issued in this offering. The Underwriter Warrants will be exercisable upon issuance, in whole or in part, and will expire three and one-half years from the commencement of sales in this offering. The Underwriter Warrants have been deemed compensation by the Financial Industry Regulatory Authority, or FINRA, and are therefore subject to a 180-day lock-up pursuant to RuleÂ 5110(g)(1)Â of FINRA.Â Pursuant to FINRA RuleÂ 5110(g), the Underwriter Warrants and any shares issued upon exercise thereof will not be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person, for a period of 180Â days immediately following the date of effectiveness or commencement of sales in this offering, except: (i)Â the transfer of any security by operation of law or by reason of our reorganization; (ii)Â the transfer of any security to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction set forth above for the remainder of the time period; (iii)Â the transfer of any security if the aggregate amount of our securities held by the placement agent or related persons do not exceed 1% of the securities being offered; (iv)Â the transfer of any security that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund and the participating members in the aggregate do not own more than 10% of the equity in the fund; or (v)Â the exercise or conversion of any security, if all securities remain subject to the lock-up restriction set forth above for the remainder of the time period. The Underwriter Warrants are registered on the registration statement of which this prospectus is a part. The form of the Underwriter Warrant has been included as an exhibit to this registration statement of which this prospectus forms a part. Â Tail Â We have also agreed to pay the Representative a tail fee equal to 7.0% of the total gross proceeds received by us in any public or private offering or other financing or capital raising transaction during the term of the engagement with the underwriter or within six (6) months following the expiration or termination of the engagement with the Representative. Â Stabilization Â In connection with this offering, the underwriter may engage in stabilizing transactions. Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress. Â Other Relationships Â The underwriter and its respective affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. The underwriter may in the future receive customary fees and commissions for these transactions. Â In the ordinary course of its various business activities, the underwriter and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of its customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriter and its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments. Â Â 21 Table of Contents Â Indemnification Â We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act, or to contribute to payments that the underwriter may be required to make for these liabilities. Â Electronic Offer, Sale and Distribution Â A prospectus supplement in electronic format may be made available on the websites maintained by the underwriter, if any, participating in this offering and the underwriter may distribute prospectus supplements electronically. Other than the prospectus supplement in electronic format, the information on these websites is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved or endorsed by us or the underwriter, and should not be relied upon by investors. Â Listing Â Our shares of common stock are listed on The Nasdaq Capital Market under the symbol â€œNDRA.â€ Â Transfer Agent Â The transfer agent for our common stock is VStock Transfer, LLC. Â LEGAL MATTERS Â The validity of the securities offered by this prospectus will be passed upon for us by K&L Gates LLP, Charlotte, North Carolina. The Representative has been represented in connection with this offering by Ellenoff Grossman & Schole LLP, New York, New York. Â EXPERTS Â RBSM LLP, independent registered public

accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2023, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 2 to the consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2023), which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on RBSM LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION We file reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information about issuers, such as us, who file electronically with the SEC. Our website address is www.endrainc.com. The information on our website, however, is not, and should not be deemed to be, a part of this prospectus. We have included our website address as an inactive textual reference only. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits filed therewith or the documents incorporated by reference herein. For further information about us and the common stock, pre-funded warrants and warrants offered hereby, we refer you to the registration statement and the exhibits filed thereto and to the documents incorporated by reference herein. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement or to a document incorporated by reference herein are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement or a document incorporated by reference herein. You may inspect a copy of the registration statement at the SEC's website, as provided above.

22 Table of Contents INCORPORATION BY REFERENCE The SEC's rules allow us to incorporate by reference into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in this prospectus or a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or a subsequently filed document incorporated by reference modifies or replaces that statement.

We incorporate by reference our documents listed below and any future filings made by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"), between the date of this prospectus and the termination of the offering of the securities described in this prospectus. We are not, however, incorporating by reference any documents or portions thereof, whether specifically listed below or filed in the future, that are not deemed filed with the SEC, including any Compensation Committee report and performance graph or any information furnished pursuant to Item 2.02 or 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K.

This prospectus incorporates by reference our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 28, 2024. All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement or after the date of this prospectus and prior to the termination of the offering of all of the securities covered hereby, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

You may request a free copy of any of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address: ENDRA Life Sciences Inc. 3600 Green Court, Suite 350 Ann Arbor, Michigan 48105 Telephone: (734) 335-0468 Exhibits to the filings will not be sent unless those exhibits have been specifically incorporated by reference in this prospectus.

23 Table of Contents ENDRA Life Sciences Inc. [—] Shares of Common Stock Pre-Funded Warrants to purchase up to [—] Shares of Common Stock [—] Series A Warrants to purchase up to [—] Shares of Common Stock [—] Series B Warrants to purchase up to [—] Shares of Common Stock and [—] Shares of Common Stock underlying the Pre-Funded Warrants, Series A Warrants, and Series B Warrants

PROSPECTUS

Craig-Hallum _____, 2024

24 Table of Contents PART II INFORMATION NOT REQUIRED IN PROSPECTUS Item A 13. Other Expenses of Issuance and Distribution. The estimated expenses in connection with the sale of the securities being registered hereby, are as follows: SEC registration fee \$ [—] FINRA filing fee \$ [—] Accounting fees and expenses \$ [—] Legal fees and expenses \$ [—] Printing \$ [—] Expense reimbursement to underwriter \$ [—] Miscellaneous \$ [—] Total \$ [—] Item A 14. Indemnification of Directors and Officers. The following summary is qualified in its entirety by reference to the complete text of any statutes referred to below and the Fourth Amended and Restated Certificate of Incorporation of ENDRA Life Sciences Inc., a Delaware corporation. Section 145 of the DGCL, or Section 145, provides that a Delaware corporation may indemnify any person who was, is or is threatened to be made, party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who were or are a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit, provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests, provided that no indemnification is permitted without judicial approval if the officer, director, employee or agent is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him and incurred by him in any such capacity, or arising out of his or her status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145. Section 102(b)(7) of the DGCL allows a corporation to provide in its certificate of incorporation that a director of the corporation will not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except where the director breached the duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. The Company's Certificate of Incorporation provides for this limitation of liability. Article NINTH of our Fourth Amended and Restated Certificate of Incorporation states that our directors shall not be personally liable to us or to our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability.

25 Table of Contents Article EIGHTH of our Fourth Amended and Restated Certificate of Incorporation provides that we shall indemnify (and advance expenses to) our officers and

directors to the full extent permitted by the DGCL. All of the Company's directors and officers are covered by insurance policies maintained by the Company against specified liabilities for actions taken in their capacities as such, including liabilities under the Securities Act. Such insurance also insures us against losses which we may incur in indemnifying our officers and directors. As permitted by the DGCL, we have entered into indemnification agreements with each of our directors and executive officers that require us to indemnify them against various actions including, but not limited to, third-party actions where such director or executive officer, by reason of his or her corporate status, is a party or is threatened to be made a party to an action, or by reason of anything done or not done by such director in any such capacity. We indemnify directors and executive officers against all costs, judgments, penalties, fines, liabilities, amounts paid in settlement by or on behalf of such directors or executive officers and for any expenses actually and reasonably incurred by such directors or executive officers in connection with such action, if such directors or executive officers acted in good faith and in a manner they reasonably believed to be in or not opposed to our best interests, and with respect to any criminal proceeding, had no reasonable cause to believe their conduct was unlawful. We also intend to advance to our directors and executive officers expenses (including attorney's fees) incurred by or on behalf of such directors and executive officers in advance of the final disposition of any action after our receipt of a statement or statements from directors or executive officers requesting such payment or payments from time to time, provided that such statement or statements are preceded or accompanied by a written undertaking, by or on behalf of such directors or executive officers, to repay such amount if it shall ultimately be determined that they are not entitled to be indemnified against such expenses by us. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification or advancement of expenses, including, among others, provisions about submitting a written request to us that includes such documentation and information as is reasonably available to the director or executive officer and is reasonably necessary to determine entitlement to indemnification and provisions. Item 15. Recent Sales of Unregistered Securities. On November 30, 2023, the Company issued 202,020 shares of restricted common stock (the "Restricted Stock") of the Company to PatentVest, Inc. (the "PatentVest") pursuant to a Restricted Stock Agreement and Consulting Services Agreement, each with PatentVest, in exchange for certain services related to the Company's patent portfolio. The Restricted Stock is subject to a vesting schedule pursuant to the Restricted Stock Agreement and the shares may not be sold, assigned, transferred, pledged, hypothecated, disposed of or otherwise encumbered prior to becoming vested. The Restricted Stock was offered and sold in reliance upon the exemption from the registration set forth under Section 4(a)(2) of the Securities Act, and the regulations promulgated thereunder relating to sales by an issuer not involving any public offering, and in reliance on similar exemptions under applicable state laws. Item 16. Exhibits. Exhibit A Incorporated by Reference Number A Exhibit Description Filed Herewith Form Exhibit Filing Date 1.1 A Form of Underwriting Agreement X A A A 3.1 A Fourth Amended and Restated Certificate of Incorporation of the Company A 8-K 3.2 05/12/17 3.2 A Certificate of Amendment to the Fourth Amended and Restated Certificate of Incorporation A 8-K 3.1 12/08/22 3.3 A Amended and Restated Bylaws of the Company A S-1 3.4 12/06/16 4.1 A Specimen Certificate representing shares of common stock of the Company A S-1 4.1 11/21/16 4.2 A Form of Series A Warrant X A A A 4.3 A Form of Series B Warrant X A A A 4.4 A Form of Pre-Funded Warrant X A A A 4.5 A Form of Underwriters' Warrant X A A A 4.6 A Form of Lock-Up Agreement X A A A 5.1 A Opinion of K&L Gates LLP A A A 10.1 A ENDRA Life Sciences Inc. 2016 Omnibus Incentive Plan * A S-1 10.4 12/06/16 10.2 A First Amendment to ENDRA Life Sciences Inc. 2016 Omnibus Incentive Plan* A DEF 14A Appx. A 05/10/18 10.3 A Form of Stock Option Award under 2016 Omnibus Incentive Plan* A S-1 10.5 12/06/16 10.4 A Form of Restricted Stock Unit Award under 2016 Omnibus Incentive Plan* A S-1 10.6 12/06/16 10.5 A Non-Employee Director Compensation Policy, effective January 30, 2023* A 10-K 10.6 03/16/23 10.6 A Form of Indemnification Agreement by and between the Company and each of its directors and executive officers* A S-1 10.8 11/21/16 10.7 A Amended and Restated Employment Agreement, dated May 12, 2017, by and between the Company and Francois Michelon* A 8-K 10.1 05/12/17 10.8 A First Amendment to Employment Agreement, dated December 27, 2019, by and between the Company and Francois Michelon* A 8-K 10.1 12/27/19 10.9 A Amended and Restated Employment Agreement, dated May 12, 2017, by and between the Company and Michael Thornton* A 8-K 10.2 05/12/17 10.10 A First Amendment to Employment Agreement, dated December 27, 2019, by and between the Company and Michael Thornton* A 8-K 10.2 12/27/19 10.11 A Collaborative Research Agreement, dated April 22, 2016, by and between the Company and General Electric Company A S-1 10.17 11/21/16 10.12 A Amendment to Collaborative Research Agreement, dated April 21, 2017, by and between the Company and General Electric Company A S-1 10.21 05/03/17 10.13 A Amendment 2 to Collaborative Research Agreement, dated January 30, 2018, by and between the Company and General Electric Company A 8-K 10.1 01/30/18 A 27 Table of Contents A 10.14 A Amendment 3 to Collaborative Research Agreement, dated January 13, 2020, by and between the Company and General Electric Company A 8-K 10.1 01/15/20 10.15 A Amendment 4 to Collaborative Research Agreement, dated December 16, 2020, by and between the Company and General Electric Company A 8-K 10.1 12/21/20 10.16 A Amendment 5 to Collaborative Research Agreement, dated December 16, 2022, by and between the Company and General Electric Company A 8-K 10.1 12/19/22 10.17 A Gross Lease, dated January 1, 2015, between the Company and Green Court LLC A S-1 10.18 11/21/16 10.18 A Amendment to Gross Lease, dated October 10, 2017, by and between the Company and Green Court LLC A 10-Q 10.2 05/15/18 10.19 A Second Amendment to Lease, dated March 15, 2021, by and between the Company and Green Court LLC A 10-K 10.18 03/25/21 10.20 A Consulting Agreement, dated October 31, 2017, by and between the Company and StarFish Product Engineering, Inc. A 10-K 10.16 03/20/18 10.21 A Consulting Agreement, dated October 17, 2023, by and between the Company and Alexander Tokman A 10-K 10.21 03/28/24 10.22 A Offer Letter, dated June 9, 2021, by and between the Company and Irina Pestrikova A 10-K 10.22 03/28/24 21.1 A Subsidiaries of the Company A 10-K 21.1 03/30/22 23.1 A Consent of RBSM LLP, Independent Registered Public Accounting Firm X A A A 23.2 A Consent of K&L Gates LLP (included in Exhibit 5.1) A A A A 24.1 A Power of Attorney (included on signature page) A A A A 107 A Filing Fee Table A X A A A * Indicates management compensatory plan, contract or arrangement. To be filed by subsequent amendment. Item 17. Undertakings. The undersigned registrant hereby undertakes: A A (a)(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement: A A (i) to include any prospectus required by section 10(a)(3) of the Securities Act of 1933; A A A (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and A A A (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement. A provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement. A A 28 Table of Contents A A (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. A A A A (3) To remove from registration by means of a post-effective

amendment any of the securities being registered which remain unsold at the termination of the offering. Â Â Â (4) The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser: Â (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; Â (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; Â (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and Â (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser. Â (b) The undersigned registrant hereby undertakes that: Â (i) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and Â (ii) for purposes of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Â (c) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Â (d) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue. Â 29 Table of Contents Â SIGNATURES Â Pursuant to the requirements of the Securities ActÂ ofÂ 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, on the 19thÂ day of April, 2024. Â ENDRA Life Sciences Inc. Â Â Â By: /s/ Francois Michelon Â Name: Francois Michelon Â Title: Chief Executive Officer Â POWER OF ATTORNEY AND SIGNATURES Â KNOW ALL PERSONS BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Francois Michelon as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her, and in his or her name in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and any registration statement for the same offering that is to be effective under Rule 462(b) of the Securities Act, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or either of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof. Â Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated. Â Signatures Â Title Â Date Â Â Â /s/ Francois Michelon Â Chief Executive Officer and Director (Principal Executive Officer) Â April 19, 2024 Francois Michelon Â Â Â Â Â /s/ Irina Pestrikova Â Senior Director, Finance (Principal Financial and Accounting Officer) Â April 19, 2024 Irina Pestrikova Â Â Â Â Â /s/ Louis J. Basenese Â Director Â April 19, 2024 Louis J. Basenese Â Â Â Â Â /s/ Anthony DiGiandomenico Â Director Â April 19, 2024 Anthony DiGiandomenico Â Â Â Â Â /s/ Michael Harsh Â Director Â April 19, 2024 Michael Harsh Â Â Â Â Â Â /s/ Alexander Tokman Â Director Â April 19, 2024 Alexander Tokman Â Â Â Â Â 30 Â EX-1.1 2 endra ex11.htm EX-1.1 endra_ex11.htmEXHIBIT 1.1 Â _____ SHARES OF COMMON STOCK AND Â _____ PRE-FUNDED WARRANTS (EXERCISABLE FOR _____ SHARES OF COMMON STOCK)Â _____ SERIES A WARRANTS (EXERCISABLE FOR _____ SHARES OF COMMON STOCK) ANDÂ _____ SERIES B WARRANTS (EXERCISABLE FOR _____ SHARES OF COMMON STOCK) Â ENDRA LIFE SCIENCES INC. Â UNDERWRITING AGREEMENT _____, 2024 Â Craig-Hallum Capital Group LLC, As the Representative of the Several underwriters, if any, named in Schedule I hereto Â 222 South Ninth Street, Suite 350 Minneapolis, Minnesota 55402 Â Ladies and Gentlemen: Â The undersigned, ENDRA Life Sciences Inc., a company incorporated under the laws of Delaware (collectively with its subsidiaries and affiliates, including, without limitation, all entities disclosed or described in the Registration Statement as being subsidiaries or affiliates of ENDRA Life Sciences Inc., the â€œCompanyâ€), hereby confirms its agreement (this â€œAgreementâ€) with the several underwriters (such underwriters, including the Representative (as defined below), the â€œUnderwritersâ€ and each an â€œUnderwriterâ€) named in Schedule I hereto for which Craig-Hallum Capital Group LLC is acting as representative to the several Underwriters (the â€œRepresentativeâ€ and if there are no Underwriters other than the Representative, references to multiple Underwriters shall be disregarded and the term Representative as used herein shall have the same meaning as Underwriter) on the terms and conditions set forth herein. Â It is understood that the several Underwriters are to make a public offering of the Public Securities as soon as the Representative deems it advisable to do so. The Public Securities are to be initially offered to the public at the public offering price set forth in the Prospectus. Â It is further understood that you will act as the Representative for the Underwriters in the offering and sale of the Public Securities in accordance with this Agreement. Â Â Â ARTICLES I. DEFINITIONS Â 1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1: Â â€œActionâ€ shall have the meaning ascribed to such term in Section 3.1(k). Â â€œAffiliateâ€ means with respect to any Person, any other Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with such Person as such terms are used in and construed under Rule 405 under the Securities Act. Â â€œBoard of Directorsâ€ means the board of directors of the Company. Â â€œBusiness Dayâ€ means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to â€œstay at homeâ€, â€œshelter-in-placeâ€, â€œnon-essential employeeâ€ or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. Â â€œClosingâ€ means the closing of the purchase and sale of the Public Securities pursuant to Section 2.1. Â â€œClosing Dateâ€ means the hour and the date on the Trading Day on which all conditions precedent to (i) the Underwritersâ€™ obligations to pay the Closing Purchase Price and (ii) the Companyâ€™s obligations to deliver the Public Securities, in each case, have been satisfied or waived, but in no event later than

amendment any of the securities being registered which remain unsold at the termination of the offering. Â Â Â (4) The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser: Â (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424; Â (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant; Â (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and Â (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser. Â (b) The undersigned registrant hereby undertakes that: Â (i) for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective; and Â (ii) for purposes of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Â (c) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Â (d) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue. Â 29 Table of Contents Â SIGNATURES Â Pursuant to the requirements of the Securities ActÂ ofÂ 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, on the 19thÂ day of April, 2024. Â ENDRA Life Sciences Inc. Â Â Â By: /s/ Francois Michelon Â Name: Francois Michelon Â Title: Chief Executive Officer Â POWER OF ATTORNEY AND SIGNATURES Â KNOW ALL PERSONS BY THESE PRESENTS that each person whose signature appears below constitutes and appoints Francois Michelon as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her, and in his or her name in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, and any registration statement for the same offering that is to be effective under Rule 462(b) of the Securities Act, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the SEC, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or either of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof. Â Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated. Â Signatures Â Title Â Date Â Â Â /s/ Francois Michelon Â Chief Executive Officer and Director (Principal Executive Officer) Â April 19, 2024 Francois Michelon Â Â Â Â Â /s/ Irina Pestrikova Â Senior Director, Finance (Principal Financial and Accounting Officer) Â April 19, 2024 Irina Pestrikova Â Â Â Â Â /s/ Louis J. Basenese Â Director Â April 19, 2024 Louis J. Basenese Â Â Â Â Â /s/ Anthony DiGiandomenico Â Director Â April 19, 2024 Anthony DiGiandomenico Â Â Â Â Â /s/ Michael Harsh Â Director Â April 19, 2024 Michael Harsh Â Â Â Â Â Â /s/ Alexander Tokman Â Director Â April 19, 2024 Alexander Tokman Â Â Â Â Â 30 Â EX-1.1 2 endra ex11.htm EX-1.1 endra_ex11.htmEXHIBIT 1.1 Â _____ SHARES OF COMMON STOCK AND Â _____ PRE-FUNDED WARRANTS (EXERCISABLE FOR _____ SHARES OF COMMON STOCK)Â _____ SERIES A WARRANTS (EXERCISABLE FOR _____ SHARES OF COMMON STOCK) ANDÂ _____ SERIES B WARRANTS (EXERCISABLE FOR _____ SHARES OF COMMON STOCK) Â ENDRA LIFE SCIENCES INC. Â UNDERWRITING AGREEMENT _____, 2024 Â Craig-Hallum Capital Group LLC, As the Representative of the Several underwriters, if any, named in Schedule I hereto Â 222 South Ninth Street, Suite 350 Minneapolis, Minnesota 55402 Â Ladies and Gentlemen: Â The undersigned, ENDRA Life Sciences Inc., a company incorporated under the laws of Delaware (collectively with its subsidiaries and affiliates, including, without limitation, all entities disclosed or described in the Registration Statement as being subsidiaries or affiliates of ENDRA Life Sciences Inc., the â€œCompanyâ€), hereby confirms its agreement (this â€œAgreementâ€) with the several underwriters (such underwriters, including the Representative (as defined below), the â€œUnderwritersâ€ and each an â€œUnderwriterâ€) named in Schedule I hereto for which Craig-Hallum Capital Group LLC is acting as representative to the several Underwriters (the â€œRepresentativeâ€ and if there are no Underwriters other than the Representative, references to multiple Underwriters shall be disregarded and the term Representative as used herein shall have the same meaning as Underwriter) on the terms and conditions set forth herein. Â It is understood that the several Underwriters are to make a public offering of the Public Securities as soon as the Representative deems it advisable to do so. The Public Securities are to be initially offered to the public at the public offering price set forth in the Prospectus. Â It is further understood that you will act as the Representative for the Underwriters in the offering and sale of the Public Securities in accordance with this Agreement. Â Â Â ARTICLES I. DEFINITIONS Â 1.1 Definitions. In addition to the terms defined elsewhere in this Agreement, for all purposes of this Agreement, the following terms have the meanings set forth in this Section 1.1: Â â€œActionâ€ shall have the meaning ascribed to such term in Section 3.1(k). Â â€œAffiliateâ€ means with respect to any Person, any other Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with such Person as such terms are used in and construed under Rule 405 under the Securities Act. Â â€œBoard of Directorsâ€ means the board of directors of the Company. Â â€œBusiness Dayâ€ means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to â€œstay at homeâ€, â€œshelter-in-placeâ€, â€œnon-essential employeeâ€ or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. Â â€œClosingâ€ means the closing of the purchase and sale of the Public Securities pursuant to Section 2.1. Â â€œClosing Dateâ€ means the hour and the date on the Trading Day on which all conditions precedent to (i) the Underwritersâ€™ obligations to pay the Closing Purchase Price and (ii) the Companyâ€™s obligations to deliver the Public Securities, in each case, have been satisfied or waived, but in no event later than

10:00 a.m. (New York City time) on the second (2nd) Trading Day following the date hereof (or third (3rd) Trading Day if this Agreement is executed after 4:00 p.m. (New York City time) but prior to 11:59 p.m. (New York City time)) or at such earlier time as shall be agreed upon by the Representative and the Company. A Closing Purchase Price shall have the meaning ascribed to such term in Section 2.1(b), which aggregate purchase price shall be net of the underwriting discounts and commissions. A Combined Purchase Price shall have the meaning ascribed to such term in Section 2.1(b). A Commission means the United States Securities and Exchange Commission. A Common Stock means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. A Common Stock Equivalents means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. A Company Auditor means RBSM LLP, with offices located at 805 Third Avenue, New York, NY 10022. A Company Counsel means K&L Gates LLP, with offices located at 300 South Tryon Street, Suite 1000, Charlotte, NC 28202. A Effective Date shall have the meaning ascribed to such term in Section 3.1(f). A EGS means Ellenoff Grossman & Schole LLP, with offices located at 1345 Avenue of the Americas, New York, New York 10105. A Exchange Act means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. A Execution Date shall mean the date on which the parties execute and enter into this Agreement. A Exempt Issuance means the issuance of (a) shares of Common Stock, options or other securities to employees, officers, directors or consultants of the Company pursuant to any employee benefit plan, equity incentive plan or other employee compensation plan existing on the date hereof or any stock or option plan duly adopted for such purpose by a majority of the non-employee members of the Board of Directors or a majority of the members of a committee of non-employee directors established for such purpose for services rendered to the Company, (b) any underwriter warrants, including shares issuable upon exercise of the underwriter warrants upon the exercise or exchange of or conversion of any Public Securities issued hereunder and/or other securities exercisable or exchangeable for or convertible into shares of Common Stock issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities or to extend the term of such securities (other than in connection with stock splits or combinations), and (c) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that such securities are issued as restricted securities (as defined in Rule 144) and carry no registration rights that require or permit the filing of any registration statement in connection therewith within 90 days following the Closing Date, and provided that any such issuance shall only be to a Person (or to the equity holders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities. A FCPA means the Foreign Corrupt Practices Act of 1977, as amended. A FINRA means the Financial Industry Regulatory Authority. A GAAP shall have the meaning ascribed to such term in Section 3.1(i). A Indebtedness means (a) any liabilities for borrowed money or amounts owed in excess of \$50,000 (other than trade accounts payable incurred in the ordinary course of business), (b) all guaranties, endorsements and other contingent obligations in respect of indebtedness of others, whether or not the same are or should be reflected in the Companys consolidated balance sheet (or the notes thereto), except guaranties by endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of business; and (c) the present value of any lease payments in excess of \$50,000 due under leases required to be capitalized in accordance with GAAP. A Liens means a lien, charge, pledge, security interest, encumbrance, right of first refusal, preemptive right or other restriction. A Lock-Up Agreements means the lock-up agreements that are delivered on the date hereof by each of the Companys officers and directors, in the form of Exhibit D attached hereto. A Material Adverse Effect means (i) a material adverse effect on the legality, validity or enforceability of any Transaction Document, (ii) a material adverse effect on the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole or (iii) a material adverse effect on the Companys ability to perform in any material respect on a timely basis its obligations under any Transaction Document. A Offering shall have the meaning ascribed to such term in Section 2.1(c). A Person means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind. A Pre-Funded Warrants means the pre-funded Common Stock purchase warrants delivered to the Underwriters in accordance with Section 2.1(a) hereof, which Pre-Funded Warrants shall be exercisable immediately and shall be exercisable until exercised in full, in the form of Exhibit A-3 hereto. A Preliminary Prospectus means, if any, any preliminary prospectus relating to the Public Securities included in the Registration Statement or filed with the Commission pursuant to Rule 424(b). A Proceeding means an action, claim, suit, investigation or proceeding (including, without limitation, an informal investigation or partial proceeding, such as a deposition), whether commenced or threatened. A Prospectus means the final prospectus filed for the Registration Statement. A Prospectus Supplement means, if any, any supplement to the Prospectus complying with Rule 424(b) of the Securities Act that is filed with the Commission. A Public Securities means, collectively, the Shares, Warrants and Warrant Shares. A Registration Statement means, collectively, the various parts of the registration statement prepared by the Company on Form S-1 (File No. 333-[]) with respect to the Public Securities, each as amended as of the date hereof, including the Prospectus and the Preliminary Prospectus, if any, and all exhibits filed with or incorporated by reference into such registration statement, and includes any Rule 462(b) Registration Statement. A Required Approvals shall have the meaning ascribed to such term in Section 3.1(e). A Rule 424 means Rule 424 promulgated by the Commission pursuant to the Securities Act, as such Rule may be amended or interpreted from time to time, or any similar rule or regulation hereafter adopted by the Commission having substantially the same purpose and effect as such Rule. A Rule 462(b) Registration Statement means any registration statement prepared by the Company registering additional Public Securities, which was filed with the Commission on or prior to the date hereof and became automatically effective pursuant to Rule 462(b) promulgated by the Commission pursuant to the Securities Act. A SEC Reports shall have the meaning ascribed to such term in Section 3.1(i). A Securities Act means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. A Series A Warrants means, collectively, the Common Stock purchase warrants delivered to the Underwriters in accordance with Section 2.1(a) hereof, which Series A Warrants shall be exercisable immediately and have a term of exercise equal to five (5) years, unless sooner expiration in accordance with the terms thereof, in the form of Exhibit A-1 attached hereto. A Series B Warrants means, collectively, the Common Stock purchase warrants delivered to the Underwriters in accordance with Section 2.1(a) hereof, which Series B Warrants shall be exercisable immediately and have a term of exercise equal to twelve (12) months, unless sooner expiration in accordance with the terms thereof, in the form of Exhibit A-2 attached hereto. A Share Purchase Price shall have the meaning ascribed to such term in Section 2.1(b). A Shareholder Approval means such approval as may be required by the applicable rules and regulations of the Nasdaq Stock Market (or any successor entity) from the stockholders of the Company with respect to issuance of all of the Warrants and the Warrant Shares upon the exercise thereof and adjustment to the exercise price in connection with a reverse split of the Common Stock. A Shareholder Approval Date means the date on which Shareholder Approval is received and deemed effective under Delaware law. A Shares means, collectively, the shares of Common Stock delivered to the Underwriters in

accordance with Section 2.1(a)(i). "Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. "Trading Day" means a day on which the principal Trading Market is open for trading. "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing). "Transaction Documents" means this Agreement, the Warrants, the Lock-Up Agreements, and any other documents or agreements executed in connection with the transactions contemplated hereunder. "Transfer Agent" means VStock Transfer LLC, the current transfer agent of the Company, with offices located at 18 Lafayette Pl, Woodmere, NY 11598, and any successor transfer agent of the Company. "Warrant Purchase Price" shall have the meaning ascribed to such term in Section 2.1(b). "Warrant Shares" means the shares of Common Stock issuable upon exercise of the Warrants. "Warrants" means, collectively, the Series A Warrants, the Series B Warrants, and the Pre-Funded Warrants. **ARTICLE II. PURCHASE AND SALE** **2.1 Closing.** **(a)** Upon the terms and subject to the conditions set forth herein, the Company agrees to sell (i) in the aggregate _____ Shares, (ii) Pre-Funded Warrants exercisable for an aggregate of _____ Warrant Shares in lieu of Shares, (iii) Series A Warrants exercisable for an aggregate of _____ Warrant Shares, and (iv) Series B Warrants exercisable for an aggregate of _____ Warrant Shares, and each Underwriter agrees to purchase, severally and not jointly, at the Closing, the following securities of the Company: **(i)** the number of shares of Common Stock (the "Shares") set forth opposite the name of such Underwriter on Schedule I hereof; **(ii)** Pre-Funded Warrants to purchase up to the number of shares of Common Stock set forth opposite the name of such Underwriter on Schedule I hereof, which Warrants shall have an exercise price of \$0.0001, subject to adjustment as provided therein; **(iii)** Series A Warrants to purchase up to the number of shares of Common Stock set forth opposite the name of such Underwriter on Schedule I hereof, which Series A Warrants shall have an exercise price of \$_____, subject to adjustment as provided therein; and **(iv)** Series B Warrants to purchase up to the number of shares of Common Stock set forth opposite the name of such Underwriter on Schedule I hereof, which Series B Warrants shall have an exercise price of \$_____, subject to adjustment as provided therein. **(b)** The aggregate purchase price for the Public Securities shall equal the amount set forth opposite the name of such Underwriter on Schedule I hereto (the "Closing Purchase Price"). The combined purchase price for one Share, one Series A Warrant to purchase one Warrant Share, one Series B Warrant to purchase one Warrant Share shall be \$_____, which shall be allocated as \$____ per Share and \$____ per Warrant Combination. The combined purchase price for one Pre-Funded Warrant, one Series A Warrant to purchase one Warrant Share, and one Series B Warrant to purchase one Warrant Share shall be \$_____, which shall be allocated as \$____ per Share and \$____ per Warrant Combination. For purposes herein, "Warrant Combination" means a Series A Warrant to purchase one Warrant Share, and a Series B Warrant to purchase one Warrant Share, which warrants shall be issued separately by the Company but shall be purchasable as a fixed combination of warrants by the Underwriters hereunder. **7.** **(c)** On the Closing Date, each Underwriter shall deliver or cause to be delivered to the Company, via wire transfer, immediately available funds equal to such Underwriter's Closing Purchase Price and the Company shall deliver to, or as directed by, such Underwriter its respective Public Securities and the Company shall deliver the other items required pursuant to Section 2.3 deliverable at the Closing. Upon satisfaction of the covenants and conditions set forth in Sections 2.3 and 2.4, the Closing shall occur at the offices of EGS or such other location as the Company and Representative shall mutually agree. The Public Securities are to be offered initially to the public at the offering price set forth on the cover page of the Prospectus (the "Offering"). **(d)** The Company acknowledges and agrees that, with respect to any Notice(s) of Exercise (as defined in the Pre-Funded Warrants) delivered by a Holder (as defined in the Pre-Funded Warrants) on or prior to 12:00 p.m. (New York City time) on the Closing Date, which Notice(s) of Exercise may be delivered at any time after the time of execution of this Agreement, the Company shall deliver the applicable Warrant Shares subject to such notice(s) to the Holder by 4:00 p.m. (New York City time) on the Closing Date and the Closing Date shall be the Share Delivery Date (as defined in the Pre-Funded Warrants) under the Pre-Funded Warrants. The Company acknowledges and agrees that the Holders are third-party beneficiaries of this covenant of the Company. **2.2 Reserved.** **2.3 Deliveries.** The Company shall deliver or cause to be delivered to each Underwriter (if applicable) the following: **(i)** At the Closing Date, the Shares, which Shares shall be delivered via The Depository Trust Company Deposit or Withdrawal at Custodian system for the accounts of the several Underwriters; **(ii)** At the Closing Date, the Pre-Funded Warrants in certificated form registered in the name or names and in such authorized denominations as the applicable Underwriter may request in writing at least one Business Day prior to the Closing Date; **(iii)** At the Closing Date, the Series A Warrants in certificated form registered in the name or names and in such authorized denominations as the applicable Underwriter may request in writing at least one Business Day prior to the Closing Date; **(iv)** At the Closing Date, the Series B Warrants in certificated form registered in the name or names and in such authorized denominations as the applicable Underwriter may request in writing at least one Business Day prior to the Closing Date; **(v)** At the Closing Date, to the Representative only, for the purchase price of \$50 to be paid by the Representative, a Warrant to purchase up to a number of shares of Common Stock equal to 5.0% of the sum of the Shares and the Warrant Shares underlying the Pre-Funded Warrants issued on such Closing Date, for the account of the Representative (or its designees) (such Warrant, the "Representative Warrant" and such shares of Common Stock issuable upon exercise of the Representative Warrant, the "Representative Warrant Shares"), which Representative Warrant shall have an exercise price of \$____1, subject to adjustment therein, shall be exercisable immediately and have a term of exercise equal to three and one-half (3.5) years and registered in the name of the Representative, otherwise on similar terms as the Series A Warrants, substantially in the form and substance reasonably acceptable to the Representative; **(vi)** At the Closing Date, a legal opinion of Company Counsel addressed to the Underwriters, including, without limitation, a negative assurance letter, substantially in the form and substance reasonably acceptable to the Representative and as to the Closing Date; **(vii)** Contemporaneously herewith, a cold comfort letter, addressed to the Underwriters and in form and substance satisfactory in all respects to the Representative from the Company Auditor dated as of the date of this Agreement and a bring-down letter dated as of the Closing Date; **(viii)** On the Closing Date, the duly executed and delivered Officer's Certificate, substantially in the form required by Exhibit B attached hereto; **(ix)** On the Closing Date, the duly executed and delivered Secretary's Certificate, substantially in the form required by Exhibit C attached hereto; and **(x)** Contemporaneously herewith, the duly executed and delivered Lock-Up Agreements. **2.4 Closing Conditions.** The respective obligations of each Underwriter hereunder in connection with the Closing are subject to the following conditions being met: **(i)** the accuracy in all material respects when made and on the date in question (other than representations and warranties of the Company already qualified by materiality, which shall be true and correct in all respects) of the representations and warranties of the Company contained herein (unless as of a specific date therein); **(ii)** all obligations, covenants and agreements of the Company required to be performed at or prior to the date in question shall have been performed; **(iii)** the delivery by the Company of the items set forth in Section 2.3 of this Agreement; **(iv)** the Registration Statement shall be effective on the date of this Agreement and at the Closing Date, if any, no stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall have been instituted or shall be pending or contemplated by the Commission and any request on the part of the Commission for additional information shall have been complied with to the reasonable satisfaction of the Representative; **1** **1** Insert 120% of the exercise price of the investor warrants. **9.** **(v)** by the Execution Date, if required by FINRA, the Underwriters shall have received clearance from FINRA as to the amount of compensation allowable or payable to the Underwriters as described in the Registration Statement; **(vi)** the Shares and the Warrant Shares have been approved for listing on the Trading Market; and **(vii)** prior to and on the Closing Date, if any: **(i)** there shall have been no material adverse change or development involving a

prospective material adverse change in the condition or prospects or the business activities, financial or otherwise, of the Company from the latest dates as of which such condition is set forth in the Registration Statement and Prospectus; (ii) no action suit or proceeding, at law or in equity, shall have been pending or threatened against the Company or any Affiliate of the Company before or by any court or federal or state commission, board or other administrative agency wherein an unfavorable decision, ruling or finding may materially adversely affect the business, operations, prospects or financial condition or income of the Company, except as set forth in the Registration Statement and Prospectus; and (iii) the Registration Statement and the Prospectus and any amendments or supplements thereto shall contain all material statements which are required to be stated therein in accordance with the Securities Act and the rules and regulations thereunder and shall conform in all material respects to the requirements of the Securities Act and the rules and regulations thereunder, and neither the Registration Statement nor the Prospectus nor any amendment or supplement thereto shall contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading. **ARTICLE III. REPRESENTATIONS AND WARRANTIES** **3.1 Representations and Warranties** of the Company. The Company represents and warrants to the Underwriters as of the Execution Date, and as of the Closing Date, as follows:

(a) Subsidiaries. All of the direct and indirect Subsidiaries of the Company are set forth in the SEC Reports. The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any Liens, and all of the issued and outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities. If the Company has no Subsidiaries, all other references to the Subsidiaries or any of them in the Transaction Documents shall be disregarded.

(b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation nor default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not have or reasonably be expected to result in a Material Adverse Effect and no Proceeding has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization; Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and each of the other Transaction Documents to which the Company is a party and otherwise to carry out its obligations hereunder and thereunder. The execution and delivery of this Agreement and each of the other Transaction Documents by the Company and the consummation by it of the transactions contemplated hereby and thereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board of Directors or the Company's stockholders in connection herewith or therewith other than in connection with the Required Approvals. This Agreement and each other Transaction Document to which the Company is a party has been (or upon delivery will have been) duly executed by the Company and, when delivered in accordance with the terms hereof and thereof, will constitute the valid and binding obligation of the Company enforceable against the Company in accordance with its terms, except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions may be limited by applicable law.

(d) No Conflicts. The execution, delivery and performance by the Company of this Agreement and the other Transaction Documents to which it is a party, the issuance and sale of the Public Securities and the consummation by it of the transactions contemplated hereby and thereby do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, anti-dilution or similar adjustments, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected; except in the case of each of clauses (ii) and (iii), such as could not have or reasonably be expected to result in a Material Adverse Effect.

(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other Person in connection with the execution, delivery and performance by the Company of the Transaction Documents, other than:

(i) the filing with the Commission of the Prospectus and (ii) such filings as are required to be made under applicable state securities laws (collectively, the "Required Approvals").

(f) Registration Statement. The Company has filed with the Commission the Registration Statement, including any related Prospectus or Prospectuses, for the registration of the Public Securities under the Securities Act, which Registration Statement has been prepared by the Company in all material respects in conformity with the requirements of the Securities Act and the rules and regulations of the Commission under the Securities Act. The Registration Statement has been declared effective by the Commission on _____, 2024 (the "Effective Date"). The Company has advised the Representative of all further information (financial and other) with respect to the Company required to be set forth therein in the Registration Statement and Prospectus. Any reference in this Agreement to the Registration Statement, the Prospectus or the Prospectus Supplement, if any, shall be deemed to refer to and include the documents incorporated by reference therein pursuant to Item 12 of Form S-1 which were filed under the Exchange Act, on or before the date of this Agreement, or the issue date of the Prospectus or the Prospectus Supplement, if any, as the case may be; and any reference in this Agreement to the terms "amend," "amendment" or "supplement" with respect to the Registration Statement, the Prospectus or the Prospectus Supplement, if any, shall be deemed to refer to and include the filing of any document under the Exchange Act after the date of this Agreement, or the issue date of the Prospectus or the Prospectus Supplement, if any, as the case may be, deemed to be incorporated therein by reference. All references in this Agreement to financial statements and schedules and other information which is "contained," "included," "described," "referenced," "set forth" or "stated" in the Registration Statement, the Prospectus or the Prospectus Supplement, if any, (and all other references of like import) shall be deemed to mean and include all such financial statements and schedules and other information which is or is deemed to be incorporated by reference in the Registration Statement, the Prospectus or the Prospectus Supplement, if any, as the case may be. No stop order suspending the effectiveness of the Registration Statement or the use of the Prospectus or the Prospectus Supplement, if any, has been issued, and no proceeding for any such purpose is pending or has been initiated or, to the Company's knowledge, is threatened by the Commission. For purposes of this Agreement, "free writing prospectus" has the meaning set forth in Rule 405 under the Securities Act. The Company will not, without the prior consent of the Representative, prepare, use or refer to, any free writing prospectus.

(g) Issuance of Public Securities. The Public Securities are duly authorized and, when issued and paid for in accordance with the applicable Transaction

Documents, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Warrant Shares, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement and the Warrants. The holder of the Public Securities will not be subject to personal liability by reason of being such holders. The Public Securities are not and will not be subject to the preemptive rights of any holders of any security of the Company or similar contractual rights granted by the Company. All corporate action required to be taken for the authorization, issuance and sale of the Public Securities has been duly and validly taken. The Public Securities conform in all material respects to all statements with respect thereto contained in the Registration Statement. (h) Capitalization. The capitalization of the Company is as set forth in the SEC Reports. The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act, other than pursuant to the exercise of employee stock options under the Company's stock option plans, the issuance of shares of Common Stock to employees pursuant to the Company's employee stock purchase plans and pursuant to the conversion and/or exercise of Common Stock Equivalents outstanding as of the date of the most recently filed periodic report under the Exchange Act. No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by the Transaction Documents. Except as a result of the purchase and sale of the Public Securities or as set forth in the Registration Statement, there are no outstanding options, warrants, scrip rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock or the capital stock of any Subsidiary, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents or the capital stock of any Subsidiary. The issuance and sale of the Public Securities will not obligate the Company or any Subsidiary to issue shares of Common Stock or other securities to any Person (other than the Underwriters). There are no outstanding securities or instruments of the Company or any Subsidiary with any provision that adjusts the exercise, conversion, exchange or reset price of such security or instrument upon an issuance of securities by the Company or any Subsidiary. There are no outstanding securities or instruments of the Company or any Subsidiary that contain any redemption or similar provisions, and there are no contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to redeem a security of the Company or such Subsidiary. The Company does not have any stock appreciation rights or phantom stock plans or agreements or any similar plan or agreement. All of the outstanding shares of capital stock of the Company are duly authorized, validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. The authorized shares of the Company conform in all material respects to all statements relating thereto contained in the Registration Statement and the Prospectus. The offers and sales of the Company's securities were at all relevant times either registered under the Securities Act and the applicable state securities or Blue Sky laws or, based in part on the representations and warranties of the purchasers, exempt from such registration requirements. No further approval or authorization of any stockholder, the Board of Directors or others is required for the issuance and sale of the Public Securities. There are no stockholders agreements, voting agreements or other similar agreements with respect to the Company's capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company's stockholders. (i) SEC Reports; Financial Statements. The Company has filed all reports, schedules, forms, statements and other documents required to be filed by the Company under the Securities Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law or regulation to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, together with the Prospectus being collectively referred to herein as the "SEC Reports") on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension. As of their respective dates, the SEC Reports complied in all material respects with the requirements of the Securities Act and the Exchange Act, as applicable, and none of the SEC Reports, when filed, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The financial statements of the Company included in the SEC Reports comply in all material respects with applicable accounting requirements and the rules and regulations of the Commission with respect thereto as in effect at the time of filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved ("GAAP"), except as may be otherwise specified in such financial statements or the notes thereto and except that unaudited financial statements may not contain all footnotes required by GAAP, and fairly present in all material respects the financial position of the Company and its consolidated Subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments. The agreements and documents described in the Registration Statement, the Prospectus, and the SEC Reports conform to the descriptions thereof contained therein and there are no agreements or other documents required by the Securities Act and the rules and regulations thereunder to be described in the Registration Statement, the Prospectus, or the SEC Reports or to be filed with the Commission as exhibits to the Registration Statement, that have not been so described or filed. Each agreement or other instrument (however characterized or described) to which the Company is a party or by which it is or may be bound or affected and (i) that is referred to in the Registration Statement, the Prospectus or the SEC Reports, or (ii) is material to the Company's business, has been duly authorized and validly executed by the Company, is in full force and effect in all material respects and is enforceable against the Company and, to the Company's knowledge, the other parties thereto, in accordance with its terms, except (x) as such enforceability may be limited by bankruptcy, insolvency, reorganization or similar laws affecting creditors' rights generally, (y) as enforceability of any indemnification or contribution provision may be limited under the federal and state securities laws, and (z) that the remedy of specific performance and injunctive and other forms of equitable relief may be subject to the equitable defenses and to the discretion of the court before which any proceeding therefore may be brought. None of such agreements or instruments has been assigned by the Company, and neither the Company nor, to the best of the Company's knowledge, any other party is in default thereunder and, to the best of the Company's knowledge, no event has occurred that, with the lapse of time or the giving of notice, or both, would constitute a default thereunder. To the best of the Company's knowledge, performance by the Company of the material provisions of such agreements or instruments will not result in a violation of any existing applicable law, rule, regulation, judgment, order or decree of any governmental agency or court, domestic or foreign, having jurisdiction over the Company or any of its assets or businesses, including, without limitation, those relating to environmental laws and regulations. (j) Material Changes; Undisclosed Events, Liabilities or Developments. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof or in any filings made pursuant to Section 16(a) of the Exchange Act, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company's financial statements pursuant to GAAP or disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of

its capital stock, (v) the Company has not issued any equity securities to any officer, director or Affiliate, except pursuant to existing Company stock option plans and (vi) no officer or director of the Company has resigned from any position with the Company. The Company does not have pending before the Commission any request for confidential treatment of information. Except for the issuance of the Public Securities contemplated by this Agreement, no event, liability, fact, circumstance, occurrence or development has occurred or exists or is reasonably expected to occur or exist with respect to the Company or its Subsidiaries or their respective businesses, prospects, properties, operations, assets or financial condition that would be required to be disclosed by the Company under applicable securities laws at the time this representation is made or deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is made. Unless otherwise disclosed in an SEC Report filed prior to the date hereof, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money; or (ii) declared or paid any dividend or made any other distribution on or in respect to its capital stock. **(k) Litigation.** There is no action, suit, inquiry, notice of violation, proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an "Action") which (i) adversely affects or challenges the legality, validity or enforceability of any of the Transaction Documents or the Public Securities or (ii) could, if there were an unfavorable decision, have or reasonably be expected to result in a Material Adverse Effect. Neither the Company nor any Subsidiary, nor any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. There has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Securities Act. **(l) Labor Relations.** No labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company, which could reasonably be expected to result in a Material Adverse Effect. None of the Company's or its Subsidiaries' employees is a member of a union that relates to such employee's relationship with the Company or such Subsidiary, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. To the knowledge of the Company, no executive officer of the Company or any Subsidiary, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant in favor of any third party, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. **(m) Compliance.** Neither the Company nor any Subsidiary: (i) is in default under or in violation of (and no event has occurred that has not been waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (whether or not such default or violation has been waived), (ii) is in violation of any judgment, decree or order of any court, arbitrator or other governmental authority or (iii) is or has been in violation of any statute, rule, ordinance or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as could not have or reasonably be expected to result in a Material Adverse Effect. **(n) Regulatory Permits.** The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities necessary to conduct their respective businesses as described in the SEC Reports, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (each, a "Material Permit"), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit. The disclosures in the Registration Statement concerning the effects of Federal, State, local and all foreign regulation on the Company's business as currently contemplated are correct in all material respects. **(o) Title to Assets.** The Company and the Subsidiaries have good and marketable title in fee simple to, or have valid and marketable rights to lease or otherwise use, all real property and all personal property that is material to the business of the Company and the Subsidiaries, in each case free and clear of all Liens, except for (i) Liens as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and (ii) Liens for the payment of federal, state or other taxes, for which appropriate reserves have been made therefor in accordance with GAAP, and the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases with which the Company and the Subsidiaries are in compliance. **(p) Intellectual Property.** The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other intellectual property rights and similar rights necessary or required for use in connection with their respective businesses as described in the SEC Reports and which the failure to do so could have a Material Adverse Effect (collectively, the "Intellectual Property Rights"). None of, and neither the Company nor any Subsidiary has received a notice (written or otherwise) that any of, the Intellectual Property Rights has expired, terminated or been abandoned, or is expected to expire or terminate or be abandoned, within two (2) years from the date of this Agreement. Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a written notice of a claim or otherwise has any knowledge that the Intellectual Property Rights violate or infringe upon the rights of any Person. To the knowledge of the Company, all such Intellectual Property Rights are enforceable and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their intellectual properties, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect. **(q) Insurance.** The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost. **(r) Transactions With Affiliates and Employees.** Except as set forth in the SEC Reports, none of the officers or directors of the Company or any Subsidiary and, to the knowledge of the Company, none of the employees of the Company or any Subsidiary is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, providing for the borrowing of money from or lending of money to or otherwise requiring payments to or from, any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee, stockholder, member or partner, in each case in excess of \$120,000

other than for (i) payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) other employee benefits, including stock option agreements under any stock option plan of the Company.

Â (s) Sarbanes-Oxley; Internal Accounting Controls. The Company and the Subsidiaries are in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the Commission thereunder that are effective as of the date hereof and as of the Closing Date. Except as disclosed in the SEC Reports, the Company and the Subsidiaries maintain a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with managementâ€™s general or specific authorizations, (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain asset accountability, (iii) access to assets is permitted only in accordance with managementâ€™s general or specific authorization, and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company and the Subsidiaries have established disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the Company and the Subsidiaries and designed such disclosure controls and procedures to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Commissionâ€™s rules and forms. The Companyâ€™s certifying officers have evaluated the effectiveness of the disclosure controls and procedures of the Company and the Subsidiaries as of the end of the period covered by the most recently filed periodic report under the Exchange Act (such date, the â€œEvaluation Dateâ€). The Company presented in its most recently filed periodic report under the Exchange Act the conclusions of the certifying officers about the effectiveness of the disclosure controls and procedures based on their evaluations as of the Evaluation Date. Since the Evaluation Date, there have been no changes in the internal control over financial reporting (as such term is defined in the Exchange Act) of the Company and its Subsidiaries that have materially affected, or is reasonably likely to materially affect, the internal control over financial reporting of the Company and its Subsidiaries. Â Â 18 Â Â (t) Certain Fees. Except as set forth in the Prospectus, no brokerage or finderâ€™s fees or commissions are or will be payable by the Company, any Subsidiary or Affiliate of the Company to any broker, financial advisor or consultant, finder, placement agent, investment banker, bank or other Person with respect to the transactions contemplated by the Transaction Documents. To the Companyâ€™s knowledge, there are no other arrangements, agreements or understandings of the Company or, to the Companyâ€™s knowledge, any of its stockholders that may affect the Underwritersâ€™ compensation, as determined by FINRA. The Company has not made any direct or indirect payments (in cash, securities or otherwise) to: (i) any person, as a finderâ€™s fee, consulting fee or otherwise, in consideration of such person raising capital for the Company or introducing to the Company persons who raised or provided capital to the Company; (ii) any FINRA member; or (iii) any person or entity that has any direct or indirect affiliation or association with any FINRA member, within the twelve months prior to the Execution Date. None of the net proceeds of the Offering will be paid by the Company to any participating FINRA member or its affiliates, except as specifically authorized herein. Â (u) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Public Securities will not be or be an Affiliate of, an â€œinvestment companyâ€ within the meaning of the Investment Company Act of 1940, as amended. The Company shall conduct its business in a manner so that it will not become an â€œinvestment companyâ€ subject to registration under the Investment Company Act of 1940, as amended. Â (v) Registration Rights. No Person has any right to cause the Company or any Subsidiary to effect the registration under the Securities Act of any securities of the Company or any Subsidiary. Â (w) Listing and Maintenance Requirements. The Common Stock is registered pursuant to Section 12(b) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. The Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market. The Company is, and has no reason to believe that it will not in the foreseeable future continue to be, in compliance with all such listing and maintenance requirements, except for Rule 5550(a)(2) of the Nasdaq Marketplace Rules. The Common Stock is currently eligible for electronic transfer through the Depository Trust Company or another established clearing corporation and the Company is current in payment of the fees of the Depository Trust Company (or such other established clearing corporation) in connection with such electronic transfer. Â Â 19 Â Â (x) Application of Takeover Protections. The Company and the Board of Directors have taken all necessary action, if any, in order to render inapplicable any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or other similar antiâ€takeover provision under the Companyâ€™s certificate of incorporation (or similar charter documents) or the laws of its state of incorporation that is or could become applicable as a result of the Underwriters and the Company fulfilling their obligations or exercising their rights under the Transaction Documents. Â (y) Disclosure; 10b-5. The Registration Statement (and any further documents to be filed with the Commission) contains all exhibits and schedules as required by the Securities Act. Each of the Registration Statement and any post-effective amendment thereto, if any, at the time it became effective, complied in all material respects with the Securities Act and the Exchange Act and the applicable rules and regulations under the Securities Act and did not and, as amended or supplemented, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Preliminary Prospectus, and the Prospectus, each as of its respective date, comply in all material respects with the Securities Act and the Exchange Act and the applicable rules and regulations. Each of the Preliminary Prospectus, and the Prospectus, as amended or supplemented, did not and will not contain as of the date thereof any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading. The SEC Reports, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act and the applicable rules and regulations, and none of such documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein (with respect to the SEC Reports incorporated by reference in the Preliminary Prospectus or Prospectus), in light of the circumstances under which they were made not misleading; and any further documents so filed and incorporated by reference in the Preliminary Prospectus or Prospectus, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and the applicable rules and regulations, as applicable, and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made not misleading. No post-effective amendment to the Registration Statement reflecting any facts or events arising after the date thereof which represent, individually or in the aggregate, a fundamental change in the information set forth therein is required to be filed with the Commission. There are no documents required to be filed with the Commission in connection with the transaction contemplated hereby that (x) have not been filed as required pursuant to the Securities Act or (y) will not be filed within the requisite time period. There are no contracts or other documents required to be described in the Preliminary Prospectus or Prospectus, or to be filed as exhibits or schedules to the Registration Statement, which have not been described or filed as required. The press releases disseminated by the Company during the twelve months preceding the date of this Agreement taken as a whole did not contain, at their respective times of issuance, any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they were made and when made, not misleading. Â Â 20 Â Â (z) No Integrated Offering. Neither the Company, nor any of its Affiliates, nor any Person acting on its or their behalf has, directly or indirectly, made any offers or

sales of any security or solicited any offers to buy any security, under circumstances that would cause this offering of the Public Securities to be integrated with prior offerings by the Company for purposes of any applicable shareholder approval provisions of any Trading Market on which any of the securities of the Company are listed or designated. (aa) Solvency. Based on the consolidated financial condition of the Company as of the Closing Date, after giving effect to the receipt by the Company of the proceeds from the sale of the Public Securities hereunder, (i) the fair saleable value of the Company's assets exceeds the amount that will be required to be paid on or in respect of the Company's existing debts and other liabilities (including known contingent liabilities) as they mature, (ii) the Company's assets do not constitute unreasonably small capital to carry on its business as now conducted and as proposed to be conducted including its capital needs taking into account the particular capital requirements of the business conducted by the Company, consolidated and projected capital requirements and capital availability thereof, and (iii) the current cash flow of the Company, together with the proceeds the Company would receive, were it to liquidate all of its assets, after taking into account all anticipated uses of the cash, would be sufficient to pay all amounts on or in respect of its liabilities when such amounts are required to be paid. The Company does not intend to incur debts beyond its ability to pay such debts as they mature (taking into account the timing and amounts of cash to be payable on or in respect of its debt). Except as disclosed in the SEC Reports, the Company has no knowledge of any facts or circumstances which lead it to believe that it will file for reorganization or liquidation under the bankruptcy or reorganization laws of any jurisdiction within one year from the Closing Date. The SEC Reports sets forth as of the date hereof all outstanding secured and unsecured Indebtedness of the Company or any Subsidiary, or for which the Company or any Subsidiary has commitments. Neither the Company nor any Subsidiary is in default with respect to any Indebtedness. (bb) Tax Status. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and its Subsidiaries each (i) has made or filed all United States federal, state and local income and all foreign income and franchise tax returns, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim. The provisions for taxes payable, if any, shown on the financial statements filed with or as part of the Registration Statement are sufficient for all accrued and unpaid taxes, whether or not disputed, and for all periods to and including the dates of such consolidated financial statements. The term "taxes" mean all federal, state, local, foreign, and other net income, gross income, gross receipts, sales, use, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes, fees, assessments, or charges of any kind whatsoever, together with any interest and any penalties, additions to tax, or additional amounts with respect thereto. The term "returns" means all returns, declarations, reports, statements, and other documents required to be filed in respect to taxes. (cc) Foreign Corrupt Practices. Neither the Company nor any Subsidiary, nor to the knowledge of the Company or any Subsidiary, any agent or other person acting on behalf of the Company or any Subsidiary, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company or any Subsidiary (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of FCPA. The Company has taken reasonable steps to ensure that its accounting controls and procedures are sufficient to cause the Company to comply in all material respects with the FCPA. (dd) Accountants. To the knowledge and belief of the Company, the Company Auditor (i) is an independent registered public accounting firm as required by the Exchange Act and (ii) shall express its opinion with respect to the financial statements to be included in the Company's Annual Report for the fiscal year ending December 31, 2024. The Company Auditor has not, during the periods covered by the financial statements included in the Prospectus, provided to the Company any non-audit services, as such term is used in Section 10A(g) of the Exchange Act. (ee) FDA. As to each product subject to the jurisdiction of the U.S. Food and Drug Administration ("FDA") under the Federal Food, Drug and Cosmetic Act, as amended, and the regulations thereunder ("FDCA") that is manufactured, packaged, labeled, tested, distributed, sold, and/or marketed by the Company or any of its Subsidiaries (each such product, a "Product"), such Product is being manufactured, packaged, labeled, tested, distributed, sold and/or marketed by the Company in compliance with all applicable requirements under FDCA and similar laws, rules and regulations relating to registration, investigational use, premarket clearance, licensure, or application approval, good manufacturing practices, good laboratory practices, good clinical practices, product listing, quotas, labeling, advertising, record keeping and filing of reports, except where the failure to be in compliance would not have a Material Adverse Effect. There is no pending, completed or, to the Company's knowledge, threatened, action (including any lawsuit, arbitration, or legal or administrative or regulatory proceeding, charge, complaint, or investigation) against the Company or any of its Subsidiaries, and none of the Company or any of its Subsidiaries has received any notice, warning letter or other communication from the FDA or any other governmental entity, which (i) contests the premarket clearance, licensure, registration, or approval of, the uses of, the distribution of, the manufacturing or packaging of, the testing of, the sale of, or the labeling and promotion of any Product, (ii) withdraws its approval of, requests the recall, suspension, or seizure of, or withdraws or orders the withdrawal of advertising or sales promotional materials relating to, any Product, (iii) imposes a clinical hold on any clinical investigation by the Company or any of its Subsidiaries, (iv) enjoins production at any facility of the Company or any of its Subsidiaries, (v) enters or proposes to enter into a consent decree of permanent injunction with the Company or any of its Subsidiaries, or (vi) otherwise alleges any violation of any laws, rules or regulations by the Company or any of its Subsidiaries, and which, either individually or in the aggregate, would have a Material Adverse Effect. The properties, business and operations of the Company have been and are being conducted in all material respects in accordance with all applicable laws, rules and regulations of the FDA. The Company has not been informed by the FDA that the FDA will prohibit the marketing, sale, license or use in the United States of any product proposed to be developed, produced or marketed by the Company. (ff) Stock Option Plans. Each stock option granted by the Company under the Company's stock option plan was granted (i) in accordance with the terms of the Company's stock option plan and (ii) with an exercise price at least equal to the fair market value of the Common Stock on the date such stock option would be considered granted under GAAP and applicable law. No stock option granted under the Company's stock option plan has been backdated. The Company has not knowingly granted, and there is no and has been no Company policy or practice to knowingly grant, stock options prior to, or otherwise knowingly coordinate the grant of stock options with, the release or other public announcement of material information regarding the Company or its Subsidiaries or their financial results or prospects. (gg) Office of Foreign Assets Control. Neither the Company nor any Subsidiary nor, to the Company's knowledge, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department. (hh) U.S. Real Property Holding Corporation. The Company is not and has never been a U.S. real property holding corporation within the meaning of Section 897 of the Internal Revenue Code of 1986, as amended, and the Company shall so certify upon the Representative's request. (ii) Bank Holding Company Act. Neither the Company nor any of its Subsidiaries or Affiliates is subject to the Bank Holding Company Act of 1956, as amended (the "BHCA") and to regulation by the Board of Governors of the Federal Reserve System (the "Federal Reserve"). Neither the Company nor any of its Subsidiaries or Affiliates owns or controls, directly or indirectly, five percent (5%) or more of the outstanding shares of any class of voting securities or twenty-five

percent (25%) or more of the total equity of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. Neither the Company nor any of its Subsidiaries or Affiliates exercises a controlling influence over the management or policies of a bank or any entity that is subject to the BHCA and to regulation by the Federal Reserve. (jj) Money Laundering. The operations of the Company and its Subsidiaries are and have been conducted at all times in compliance with applicable financial record-keeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the "Money Laundering Laws"), and no Action or Proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Money Laundering Laws is pending or, to the knowledge of the Company or any Subsidiary, threatened. (kk) D&O Questionnaires. To the Company's knowledge, all information contained in the questionnaires completed by each of the Company's directors and officers prior to the Offering and in the Lock-Up Agreement provided to the Underwriters is true and correct in all respects and the Company has not become aware of any information which would cause the information disclosed in such questionnaires become inaccurate and incorrect. (ll) FINRA Affiliation. No officer, director or any beneficial owner of 5% or more of the Company's unregistered securities has any direct or indirect affiliation or association with any FINRA member (as determined in accordance with the rules and regulations of FINRA) that is participating in the Offering. The Company will advise the Representative and EGS if it learns that any officer, director or owner of 5% or more of the Company's outstanding shares of Common Stock or Common Stock Equivalents is or becomes an affiliate or associated person of a FINRA member firm. (mm) Officers' Certificate. Any certificate signed by any duly authorized officer of the Company and delivered to the Representative or EGS shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby. (n) Board of Directors. The Board of Directors is comprised of the persons set forth in Part III, Item 10 of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2023 captioned "Management." The qualifications of the persons serving as board members and the overall composition of the Board of Directors comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder applicable to the Company and the rules of the Trading Market. At least one member of the Board of Directors qualifies as a "financial expert" as such term is defined under the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder and the rules of the Trading Market. In addition, at least a majority of the persons serving on the Board of Directors qualify as "independent" as defined under the rules of the Trading Market. (oo) Cybersecurity. There has been no security breach or other compromise of or relating to any of the Company's or any Subsidiary's information technology and computer systems, networks, hardware, software, data (including the data of its respective customers, employees, suppliers, vendors and any third party data maintained by or on behalf of it), equipment or technology (collectively, "IT Systems and Data") and (y) the Company and the Subsidiaries have not been notified of, and has no knowledge of any event or condition that would reasonably be expected to result in, any security breach or other compromise to its IT Systems and Data; (ii) the Company and the Subsidiaries are presently in compliance with all applicable laws or statutes and all judgments, orders, rules and regulations of any court or arbitrator or governmental or regulatory authority, internal policies and contractual obligations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, individually or in the aggregate, have a Material Adverse Effect; (iii) the Company and the Subsidiaries have implemented and maintained commercially reasonable safeguards to maintain and protect its material confidential information and the integrity, continuous operation, redundancy and security of all IT Systems and Data; and (iv) the Company and the Subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practices. (pp) Compliance with Data Privacy Laws. (i) The Company and the Subsidiaries are, and at all times during the last three (3) years were, in material compliance with all applicable state, federal and foreign data privacy and security laws and regulations, including, without limitation, the European Union General Data Protection Regulation ("GDPR") (EU 2016/679) (collectively, "Privacy Laws"); (ii) the Company and the Subsidiaries have in place, comply with, and take appropriate steps reasonably designed to ensure compliance with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling and analysis of Personal Data (as defined below) (the "Policies"); (iii) the Company provides accurate notice of its applicable Policies to its customers, employees, third party vendors and representatives as required by the Privacy Laws; and (iv) applicable Policies provide accurate and sufficient notice of the Company's then-current privacy practices relating to its subject matter, and do not contain any material omissions of the Company's then-current privacy practices, as required by Privacy Laws. "Personal Data" means (i) a natural person's name, street address, telephone number, email address, photograph, social security number, bank information, or customer or account number; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) "personal data" as defined by GDPR; and (iv) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of any identifiable data related to an identified person's health or sexual orientation. (i) None of such disclosures made or contained in any of the Policies have been inaccurate, misleading, or deceptive in violation of any Privacy Laws and (ii) the execution, delivery and performance of the Transaction Documents will not result in a breach of any Privacy Laws or Policies. Neither the Company nor the Subsidiaries (i) to the knowledge of the Company, has received written notice of any actual or potential liability of the Company or the Subsidiaries under, or actual or potential violation by the Company or the Subsidiaries of, any of the Privacy Laws; (ii) is currently conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any regulatory request or demand pursuant to any Privacy Law; or (iii) is a party to any order, decree, or agreement by or with any court or arbitrator or governmental or regulatory authority that imposed any obligation or liability under any Privacy Law. (q) Environmental Laws. The Company and its Subsidiaries (i) are in compliance with all federal, state, local and foreign laws relating to pollution or protection of human health or the environment (including ambient air, surface water, groundwater, land surface or subsurface strata), including laws relating to emissions, discharges, releases or threatened releases of chemicals, pollutants, contaminants, or toxic or hazardous substances or wastes (collectively, "Hazardous Materials") into the environment, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials, as well as all authorizations, codes, decrees, demands, or demand letters, injunctions, judgments, licenses, notices or notice letters, orders, permits, plans or regulations, issued, entered, promulgated or approved thereunder ("Environmental Laws"); (ii) have received all permits licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses; and (iii) are in compliance with all terms and conditions of any such permit, license or approval where in each clause (i), (ii) and (iii), the failure to so comply could be reasonably expected to have, individually or in the aggregate, a Material Adverse Effect. (ARTICLE IV. OTHER AGREEMENTS OF THE PARTIES) 4.1 Amendments to Registration Statement. The Company has delivered, or will as promptly as practicable deliver, to the Underwriters complete conformed copies of the Registration Statement and of each consent and certificate of experts, as applicable, filed as a part thereof, and conformed copies of the Registration Statement (without exhibits), and the Prospectus, as amended or supplemented, in such quantities and at such places as an Underwriter reasonably requests. Neither the Company nor any of its directors and officers has distributed and none of them will distribute, prior to the Closing Date, any offering material in connection with the offering and sale of the Public Securities other than the Prospectus, the Registration Statement, and copies of the documents incorporated by reference therein. The Company shall not file any such amendment or supplement to which the Representative shall reasonably object in writing. (4.2) Federal Securities Laws. (a) Compliance. During the time when a Prospectus is required to be delivered under the Securities Act, the Company will use its best efforts to comply with all requirements imposed upon it by the Securities Act and the rules and

regulations thereunder and the Exchange Act and the rules and regulations thereunder, as from time to time in force, so far as necessary to permit the continuance of sales of or dealings in the Public Securities in accordance with the provisions hereof and the Prospectus. If at any time when a Prospectus relating to the Public Securities is required to be delivered under the Securities Act, any event shall have occurred as a result of which, in the opinion of counsel for the Company or counsel for the Underwriters, the Prospectus, as then amended or supplemented, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, or if it is necessary at any time to amend the Prospectus to comply with the Securities Act, the Company will notify the Underwriters promptly and prepare and file with the Commission, subject to Section 4.1 hereof, an appropriate amendment or supplement in accordance with Section 10 of the Securities Act. (b) Filing of Final Prospectus. The Company will file the Prospectus (in form and substance satisfactory to the Representative) with the Commission pursuant to the requirements of Rule 424. (c) Exchange Act Registration. For a period of three years from the Execution Date, the Company will use its best efforts to maintain the registration of the Common Stock under the Exchange Act. The Company will not deregister the Common Stock under the Exchange Act without the prior written consent of the Representative. The foregoing covenant in this Section 4.2(c) shall not require the Company to maintain registration following the completion of a Fundamental Transaction (as defined in the Warrants) as a result of which this Warrant becomes exercisable for Alternate Consideration (as defined in the Warrants) nor require the prior written consent of the Representative to undertake such a Fundamental Transaction. (d) Free Writing Prospectuses. The Company represents and agrees that it has not made and will not make any offer relating to the Public Securities that would constitute an issuer free writing prospectus, as defined in Rule 433 of the rules and regulations under the Securities Act, without the prior written consent of the Representative. Any such free writing prospectus consented to by the Representative is herein referred to as a "Permitted Free Writing Prospectus." The Company represents that it will treat each Permitted Free Writing Prospectus as an "issuer free writing prospectus" as defined in rule and regulations under the Securities Act, and has complied and will comply with the applicable requirements of Rule 433 of the Securities Act, including timely Commission filing where required, legending and record keeping. (e) 27. 4.3 Delivery to the Underwriters of Prospectuses. The Company will deliver to the Underwriters, without charge, from time to time during the period when the Prospectus is required to be delivered under the Securities Act or the Exchange Act such number of copies of each Prospectus as the Underwriters may reasonably request and, as soon as the Registration Statement or any amendment or supplement thereto becomes effective, upon reasonable request, deliver to you two original executed Registration Statements, including exhibits, and all post-effective amendments thereto and copies of all exhibits filed therewith or incorporated therein by reference and all original executed consents of certified experts. (f) 4.4 Effectiveness and Events Requiring Notice to the Underwriters. The Company will use its commercially reasonable efforts to cause the Registration Statement to remain effective with a current prospectus until the later of nine (9) months from the Execution Date and the date on which the Warrants are no longer outstanding, and will notify the Underwriters and holders of the Warrants immediately and confirm the notice in writing: (i) of the effectiveness of the Registration Statement and any amendment thereto; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening, of any proceeding for that purpose; (iii) of the issuance by any state securities commission of any proceedings for the suspension of the qualification of the Public Securities for offering or sale in any jurisdiction or of the initiation, or the threatening, of any proceeding for that purpose; (iv) of the mailing and delivery to the Commission for filing of any amendment or supplement to the Registration Statement or Prospectus; (v) of the receipt of any comments or request for any additional information from the Commission; and (vi) of the happening of any event during the period described in this Section 4.4 that, in the judgment of the Company, makes any statement of a material fact made in the Registration Statement or the Prospectus untrue or that requires the making of any changes in the Registration Statement or the Prospectus in order to make the statements therein, in light of the circumstances under which they were made, not misleading. If the Commission or any state securities commission shall enter a stop order or suspend such qualification at any time, the Company will make every reasonable effort to obtain promptly the lifting of such order. (g) 4.5 Review of Financial Statements. For a period of five (5) years from the Execution Date, the Company, at its expense, shall cause its regularly engaged independent registered public accountants to review (but not audit) the Company's financial statements for each of the first three fiscal quarters prior to the announcement of quarterly financial information. (h) 28. 4.6 Expenses of the Offering. (a) General Expenses Related to the Offering. The Company hereby agrees to pay on each of the Closing Date, to the extent not paid at the Closing Date, all expenses incident to the performance of the obligations of the Company under this Agreement, including, but not limited to: (a) all filing fees and communication expenses relating to the registration of the Public Securities to be sold in the Offering with the Commission; (b) all FINRA Public Offering Filing System fees associated with the review of the Offering by FINRA; all fees and expenses relating to the listing of such Shares and Warrant Shares on the Trading Market and such other stock exchanges as the Company and the Representative together determine; (c) all fees, expenses and disbursements relating to the registration or qualification of such Public Securities under the "blue sky" securities laws of such states and other foreign jurisdictions as the Representative may reasonably designate (including, without limitation, all filing and registration fees, and the fees and expenses of Blue Sky counsel); (d) the costs of all mailing and printing of the underwriting documents (including, without limitation, the Underwriting Agreement, any Blue Sky Surveys and, if appropriate, any Agreement Among Underwriters, Selected Dealers' Agreement, Underwriters' Questionnaire and Power of Attorney), Registration Statements, Prospectuses and all amendments, supplements and exhibits thereto and as many preliminary and final Prospectuses as the Representative may reasonably deem necessary; (e) the costs and expenses of the Company's public relations firm; (f) the costs of preparing, printing and delivering the Securities; (g) fees and expenses of the Transfer Agent for the Securities (including, without limitation, any fees required for same-day processing of any instruction letter delivered by the Company); (h) stock transfer and/or stamp taxes, if any, payable upon the transfer of securities from the Company to the Underwriters; (i) the fees and expenses of the Company's accountants; (j) the fees and expenses of the Company's legal counsel and other agents and representatives; (k) the Underwriters' costs of mailing prospectuses to prospective investors; (l) the costs the Underwriters' use of i-Deal's book-building, prospectus tracking and compliance software (or other similar software) for the Offering; and (m) the Underwriters' actual "road show" expenses for the Offering. The Underwriters may also deduct from the net proceeds of the Offering payable to the Company on the Closing Date, the expenses set forth herein to be paid by the Company to the Underwriters. (b) Expenses of the Representative. The Company further agrees that, in addition to the expenses payable pursuant to Section 4.6(a), on the Closing Date, the Company shall reimburse the Representative for its out-of-pocket expenses, including, without limitation, the fees and expenses of counsel of the Representative, in connection with the Offering up to \$100,000 (which shall include any expenses under clauses (k) through (m) in Section 4.6(a) herein), which shall be paid by deduction from the proceeds of the Offering contemplated herein. (c) Application of Net Proceeds. The Company will apply the net proceeds from the Offering received by it in a manner consistent with the application described under the caption "Use of Proceeds" in the Prospectus. (d) 4.8 Delivery of Earnings Statements to Security Holders. The Company will make generally available to its security holders as soon as practicable, but not later than the first day of the fifteenth full calendar month following the Execution Date, an earnings statement (which need not be certified by independent public or independent certified public accountants unless required by the Securities Act or the Rules and Regulations under the Securities Act, but which shall satisfy the provisions of Rule 158(a) under Section 11(a) of the Securities Act) covering a period of at least twelve consecutive months beginning after the Execution Date. (e) 29. 4.9 Stabilization. Neither the Company, nor, to its knowledge, any of its employees, directors or shareholders (without the consent of the Representative) has taken or will take, directly or indirectly, any action designed to or that has constituted or that might

reasonably be expected to cause or result in, under the Exchange Act, or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Public Securities. **4.10 Internal Controls.** The Company will use commercially reasonable efforts to maintain a system of internal accounting controls sufficient to provide reasonable assurances that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. **4.11 Accountants.** The Company shall continue to retain a nationally recognized independent certified public accounting firm for a period of at least three years after the Execution Date. The Underwriters acknowledge that the Company Auditor is acceptable to the Underwriters. **4.12 FINRA.** The Company shall advise the Underwriters (who shall make an appropriate filing with FINRA) if it is aware that any 5% or greater shareholder of the Company becomes an affiliate or associated person of an Underwriter. **4.13 No Fiduciary Duties.** The Company acknowledges and agrees that the Underwriters' responsibility to the Company is solely contractual and commercial in nature, based on arms-length negotiations and that neither the Underwriters nor their affiliates or any selected dealer shall be deemed to be acting in a fiduciary capacity, or otherwise owes any fiduciary duty to the Company or any of its affiliates in connection with the Offering and the other transactions contemplated by this Agreement. Notwithstanding anything in this Agreement to the contrary, the Company acknowledges that the Underwriters may have financial interests in the success of the Offering that are not limited to the difference between the price to the public and the purchase price paid to the Company by the Underwriters for the shares and the Underwriters have no obligation to disclose, or account to the Company for, any of such additional financial interests. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against the Underwriters with respect to any breach or alleged breach of fiduciary duty. **4.14 Warrant Shares.** If all or any portion of a Warrant is exercised at a time when there is an effective registration statement to cover the issuance of the Warrant Shares or if the Warrant is exercised via cashless exercise, the Warrant Shares issued pursuant to any such exercise shall be issued free of all restrictive legends. If at any time following the date hereof the Registration Statement (or any subsequent registration statement registering the sale or resale of the Warrant Shares) is not effective or is not otherwise available for the sale of the Warrant Shares, the Company shall immediately notify the holders of the Warrants in writing that such registration statement is not then effective and thereafter shall promptly notify such holders when the registration statement is effective again and available for the sale of the Warrant Shares (it being understood and agreed that the foregoing shall not limit the ability of the Company to issue, or any holder thereof to sell, any of the Warrant Shares in compliance with applicable federal and state securities laws). **4.15 Board Composition and Board Designations.** The Company shall ensure that: (i) the qualifications of the persons serving as board members and the overall composition of the Board of Directors comply with the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder and with the listing requirements of the Trading Market and (ii) if applicable, at least one member of the Board of Directors qualifies as a financial expert as such term is defined under the Sarbanes-Oxley Act of 2002 and the rules promulgated thereunder. **4.16 Securities Laws Disclosure; Publicity.** At the request of the Representative, by 9:00 a.m. (New York City time) on the date hereof (or, if this Agreement is executed after 9:00 a.m. on the Execution Date, by 9:00 a.m. (New York City time) on the Trading Day following the date hereof at the instruction of the Representative), the Company shall issue a press release disclosing the material terms of the Offering. The Company and the Representative shall consult with each other in issuing any other press releases with respect to the Offering, and neither the Company nor any Underwriter shall issue any such press release nor otherwise make any such public statement without the prior consent of the Company, with respect to any press release of such Underwriter, or without the prior consent of such Underwriter, with respect to any press release of the Company, which consent shall not unreasonably be withheld or delayed, except if such disclosure is required by law, in which case the disclosing party shall promptly provide the other party with prior notice of such public statement or communication. The Company will not issue press releases or engage in any other publicity, without the Representative's prior written consent, for a period ending at 5:00 p.m. (New York City time) on the first business day following the 45th day following the Closing Date, other than normal and customary releases issued or publicity undertaken in the ordinary course of the Company's business. **4.17 Shareholder Rights Plan.** No claim will be made or enforced by the Company or, with the consent of the Company, any other Person, that any Underwriter of the Public Securities is an Acquiring Person under any control share acquisition, business combination, poison pill (including any distribution under a rights agreement) or similar anti-takeover plan or arrangement in effect or hereafter adopted by the Company, or that any Underwriter of Public Securities could be deemed to trigger the provisions of any such plan or arrangement, by virtue of receiving Public Securities. **4.18 Reservation of Common Stock.** As of the date hereof, the Company has reserved and the Company shall continue to reserve and keep available at all times, free of preemptive rights, a sufficient number of shares of Common Stock for the purpose of enabling the Company to issue the Shares and Warrant Shares pursuant to this Agreement and pursuant to any exercise of the Warrants. **4.19 Listing of Common Stock.** The Company hereby agrees to use commercially reasonable efforts to maintain the listing or quotation of the Common Stock on the Trading Market on which it is currently listed, and concurrently with the Closing, the Company shall apply to list or quote all of the Shares and Warrant Shares on such Trading Market and promptly secure the listing of all of the Shares and Warrant Shares on such Trading Market. The Company further agrees, if the Company applies to have the Common Stock traded on any other Trading Market, it will then include in such application all of the Shares and Warrant Shares, and will take such other action as is necessary to cause all of the Shares and Warrant Shares to be listed or quoted on such other Trading Market as promptly as possible. The Company will then take all action reasonably necessary to continue the listing and trading of its Common Stock on a Trading Market and will comply in all respects with the Company's reporting, filing and other obligations under the bylaws or rules of the Trading Market. The Company agrees to maintain the eligibility of the Common Stock for electronic transfer through the Depository Trust Company or another established clearing corporation, including, without limitation, by timely payment of fees to the Depository Trust Company or such other established clearing corporation in connection with such electronic transfer. **4.20 Subsequent Equity Sales.** (a) From the date hereof until 90 days after the Closing Date, neither the Company nor any Subsidiary shall issue, enter into any agreement to issue or announce the issuance or proposed issuance of any shares of Common Stock or Common Stock Equivalents, except for the Shares and Warrants issued pursuant hereto. (b) From the date hereof until 180 days after the Closing Date, the Company shall be prohibited from effecting or entering into an agreement to effect any issuance by the Company or any of its Subsidiaries of Common Stock or Common Stock Equivalents (or a combination of units thereof) involving a Variable Rate Transaction. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive, additional shares of Common Stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon, and/or varies with, the trading prices of or quotations for the shares of Common Stock at any time after the initial issuance of such debt or equity securities or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the Common Stock or (ii) enters into, or effects a transaction under, any agreement, including, but not limited to, an equity line of credit or an "at-the-market offering", whereby the Company may issue securities at a future determined price regardless of whether shares pursuant to such agreement have actually been issued and regardless of whether such agreement is subsequently canceled. Any Underwriter shall be entitled to obtain injunctive relief against the Company to preclude any such issuance, which remedy shall be in addition

to any right to collect damages. [This Section 4.20(b) shall not apply to sales of shares of Common Stock at or above \$[Â]2 under the Companyâ€™s existing at-the-market offering program with Ascendant Capital Markets, LLC, beginning on the date that is 90 days after the Closing Date.]3 2Â To be equal to the combined purchase price for one Share, one Series A

Warrant to purchase one Warrant Share and one Series B Warrant to purchase one Warrant Share in the Offering. 3Â To be included if the aggregate Closing Purchase Price is less than \$6.0 million. Â Â 32 Â Â (c) Notwithstanding the foregoing, this Section 4.20 shall not apply in respect of an Exempt Issuance, except that no Variable Rate Transaction shall be an Exempt Issuance. Â 4.21 Research Independence. The Company acknowledges that each Underwriterâ€™s research analysts and research departments, if any, are required to be independent from their respective investment banking divisions and are subject to certain regulations and internal policies, and that such Underwriterâ€™s research analysts may hold and make statements or investment recommendations and/or publish research reports with respect to the Company and/or the offering that differ from the views of its investment bankers. The Company hereby waives and releases, to the fullest extent permitted by law, any claims that the Company may have against such Underwriter with respect to any conflict of interest that may arise from the fact that the views expressed by their independent research analysts and research departments may be different from or inconsistent with the views or advice communicated to the Company by such Underwriterâ€™s investment banking divisions. The Company acknowledges that the Representative is a full-service securities firm and as such from time to time, subject to applicable securities laws, may effect transactions for its own account or the account of its customers and hold long or short position in debt or equity securities of the Company. Â 4.22 Shareholder Approval; Prohibition on Exercisability. The Company shall hold a special meeting of shareholders (which may also be at the annual meeting of shareholders) at the earliest practicable date after the date hereof, but in no event later than seventy five (75) days after the Closing Date (as defined in the Underwriting Agreement) (which may be subject to postponement with the prior written consent of the Underwriter) for the purpose of obtaining Shareholder Approval, if required to effect the purpose thereof, with the recommendation of the Companyâ€™s Board of Directors that such proposal be approved, and the Company shall solicit proxies from its shareholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Shareholder Approval, and officers, and directors subject to the Lock-Up Agreement (as defined in the Underwriting Agreement) shall cast their proxies in favor of such proposal. If the Company does not obtain Shareholder Approval at the first meeting, the Company shall call a meeting every three (3) months thereafter to seek Shareholder Approval until the earlier of the date Shareholder Approval is obtained or the Warrants are no longer outstanding. Notwithstanding the foregoing, the Company may, in lieu of holding a special meeting of shareholders as aforesaid, obtain the written consent of a majority of its shareholders covering the Shareholder Approval so long as prior to forty five (45) days after the Closing Date, such written consents are obtained and in accordance with Exchange Act Rule 14c-2 at least twenty (20) days shall have transpired from the date on which a written information statement containing the information specified in Schedule 14C detailing such Shareholder Approval shall have been filed with the Commission and delivered to shareholders of the Company. Until the Shareholder Approval becomes effective pursuant to the rules promulgated under the Exchange Act, the Company shall not hold any meeting of its shareholders unless the Company also includes a proposal for obtaining the Shareholder Approval in such meeting. Until such approval is obtained, the Series A Warrants and the Series B Warrants issuable hereunder shall not be exercisable. Â Â 33 Â Â ARTICLE V.

DEFAULT BY UNDERWRITERS Â If on the Closing Date, if any, any Underwriter shall fail to purchase and pay for the portion of the Public Securities which such Underwriter has agreed to purchase and pay for on such date (otherwise than by reason of any default on the part of the Company), the Representative, or if the Representative is the defaulting Underwriter, the non-defaulting Underwriters, shall use their reasonable efforts to procure within 36 hours thereafter one or more of the other Underwriters, or any others, to purchase from the Company such amounts as may be agreed upon and upon the terms set forth herein, the Public Securities which the defaulting Underwriter or Underwriters failed to purchase. If during such 36 hours the Representative shall not have procured such other Underwriters, or any others, to purchase the Public Securities agreed to be purchased by the defaulting Underwriter or Underwriters, then (a) if the aggregate number of Public Securities with respect to which such default shall occur does not exceed 10% of the Public Securities covered hereby, the other Underwriters shall be obligated, severally, in proportion to the respective numbers of Public Securities which they are obligated to purchase hereunder, to purchase the Public Securities which such defaulting Underwriter or Underwriters failed to purchase, or (b) if the aggregate number of Public Securities with respect to which such default shall occur exceeds 10% of the Public Securities covered hereby, the Company or the Representative will have the right to terminate this Agreement without liability on the part of the non-defaulting Underwriters or of the Company except to the extent provided in Article VI hereof. In the event of a default by any Underwriter or Underwriters, as set forth in this Article V, the applicable Closing Date may be postponed for such period, not exceeding seven days, as the Representative, or if the Representative is the defaulting Underwriter, the non-defaulting Underwriters, may determine in order that the required changes in the Prospectus or in any other documents or arrangements may be effected. The term â€œUnderwriterâ€ includes any Person substituted for a defaulting Underwriter. Any action taken under this Section shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement. Â Â 34 Â Â ARTICLE VI. INDEMNIFICATION Â 6.1 Indemnification of the Underwriters. Subject to the conditions set forth below, the Company agrees to indemnify and hold harmless the Underwriters, and each dealer selected by each Underwriter that participates in the offer and sale of the Public Securities (each a â€œSelected Dealerâ€) and each of their respective directors, officers and employees and each Person, if any, who controls such Underwriter or any Selected Dealer (â€œControlling Personâ€) within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, against any and all loss, liability, claim, damage and expense whatsoever (including but not limited to any and all legal or other expenses reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever, whether arising out of any action between such Underwriter and the Company or between such Underwriter and any third party or otherwise) to which they or any of them may become subject under the Securities Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries, arising out of or based upon any untrue statement or alleged untrue statement of a material fact contained in (i) any Preliminary Prospectus, if any, the Registration Statement or the Prospectus (as from time to time each may be amended and supplemented); (ii) any materials or information provided to investors by, or with the approval of, the Company in connection with the marketing of the offering of the Public Securities, including any â€œroad showâ€ or investor presentations made to investors by the Company (whether in person or electronically) (â€œInvestor Materialsâ€); or (iii) any application or other document or written communication (in this Article VI, collectively called â€œapplicationâ€) executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Public Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, Trading Market or any securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, unless such statement or omission was made in reliance upon and in conformity with written information furnished to the Company with respect to the applicable Underwriter by or on behalf of such Underwriter expressly for use in any Preliminary Prospectus, if any, the Registration Statement or Prospectus, or any amendment or supplement thereto, any Investor Materials, or in any application, as the case may be. With respect to any untrue statement or omission or alleged untrue statement or omission made in the Preliminary Prospectus, if any, the indemnity agreement contained in this Section 6.1 shall not inure to the benefit of an Underwriter to the extent that any loss, liability, claim, damage or expense of such Underwriter results from the fact that a copy of the Prospectus was not given or sent to the Person asserting any such

loss, liability, claim or damage at or prior to the written confirmation of sale of the Public Securities to such Person as required by the Securities Act and the rules and regulations thereunder, and if the untrue statement or omission has been corrected in the Prospectus, unless such failure to deliver the Prospectus was a result of non-compliance by the Company with its obligations under this Agreement. The Company agrees promptly to notify each Underwriter of the commencement of any litigation or proceedings against the Company or any of its officers, directors or Controlling Persons in connection with the issue and sale of the Public Securities or in connection with the Registration Statement or Prospectus. **6.2 Procedure.** If any action is brought against an Underwriter, a Selected Dealer or a Controlling Person in respect of which indemnity may be sought against the Company pursuant to Section 6.1, such Underwriter, such Selected Dealer or Controlling Person, as the case may be, shall promptly notify the Company in writing of the institution of such action and the Company shall assume the defense of such action, including the employment and fees of counsel (subject to the reasonable approval of such Underwriter or such Selected Dealer, as the case may be) and payment of actual expenses. Such Underwriter, such Selected Dealer or Controlling Person shall have the right to employ its or their own counsel in any such case, but the fees and expenses of such counsel shall be at the expense of such Underwriter, such Selected Dealer or Controlling Person unless (i) the employment of such counsel at the expense of the Company shall have been authorized in writing by the Company in connection with the defense of such action, or (ii) the Company shall not have employed counsel to have charge of the defense of such action, or (iii) such indemnified party or parties shall have reasonably concluded that there may be defenses available to it or them which are different from or additional to those available to the Company (in which case the Company shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events the reasonable fees and expenses of not more than one additional firm of attorneys selected by such Underwriter (in addition to local counsel), Selected Dealer and/or Controlling Person shall be borne by the Company. Notwithstanding anything to the contrary contained herein, if any Underwriter, Selected Dealer or Controlling Person shall assume the defense of such action as provided above, the Company shall have the right to approve the terms of any settlement of such action which approval shall not be unreasonably withheld. **6.3 Indemnification of the Company.** Each Underwriter severally and not jointly agrees to indemnify and hold harmless the Company, its directors, officers and employees and agents who control the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act against any and all loss, liability, claim, damage and expense described in the foregoing indemnity from the Company to such Underwriter, as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions made in any Preliminary Prospectus, if any, the Registration Statement or Prospectus or any amendment or supplement thereto or in any application, in reliance upon, and in strict conformity with, written information furnished to the Company with respect to such Underwriter by or on behalf of such Underwriter expressly for use in such Preliminary Prospectus, if any, the Registration Statement or Prospectus or any amendment or supplement thereto or in any such application. In case any action shall be brought against the Company or any other Person so indemnified based on any Preliminary Prospectus, if any, the Registration Statement or Prospectus or any amendment or supplement thereto or any application, and in respect of which indemnity may be sought against such Underwriter, such Underwriter shall have the rights and duties given to the Company, and the Company and each other Person so indemnified shall have the rights and duties given to such Underwriter by the provisions of this Article VI. Notwithstanding the provisions of this Section 6.3, no Underwriter shall be required to indemnify the Company for any amount in excess of the underwriting discounts and commissions applicable to the Public Securities purchased by such Underwriter. The Underwriters' obligations in this Section 6.3 to indemnify the Company are several in proportion to their respective underwriting obligations and not joint. **6.4 Contribution.** **(a) Contribution Rights.** In order to provide for just and equitable contribution under the Securities Act in any case in which (i) any Person entitled to indemnification under this Article VI makes a claim for indemnification pursuant hereto but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case notwithstanding the fact that this Article VI provides for indemnification in such case, or (ii) contribution under the Securities Act, the Exchange Act or otherwise may be required on the part of any such Person in circumstances for which indemnification is provided under this Article VI, then, and in each such case, the Company and each Underwriter, severally and not jointly, shall contribute to the aggregate losses, liabilities, claims, damages and expenses of the nature contemplated by said indemnity agreement incurred by the Company and such Underwriter, as incurred, in such proportions that such Underwriter is responsible for that portion represented by the percentage that the underwriting discount appearing on the cover page of the Prospectus bears to the initial offering price appearing thereon and the Company is responsible for the balance; provided, that, no Person guilty of a fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. For purposes of this Section, each director, officer and employee of such Underwriter or the Company, as applicable, and each Person, if any, who controls such Underwriter or the Company, as applicable, within the meaning of Section 15 of the Securities Act shall have the same rights to contribution as such Underwriter or the Company, as applicable. Notwithstanding the provisions of this Section 6.4, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions applicable to the Public Securities purchased by such Underwriter. The Underwriters' obligations in this Section 6.4 to contribute are several in proportion to their respective underwriting obligations and not joint. **(b) Contribution Procedure.** Within fifteen days after receipt by any party to this Agreement (or its representative) of notice of the commencement of any action, suit or proceeding, such party will, if a claim for contribution in respect thereof is to be made against another party (the contributing party), notify the contributing party of the commencement thereof, but the failure to so notify the contributing party will not relieve it from any liability which it may have to any other party other than for contribution hereunder. In case any such action, suit or proceeding is brought against any party, and such party notifies a contributing party or its representative of the commencement thereof within the aforesaid fifteen days, the contributing party will be entitled to participate therein with the notifying party and any other contributing party similarly notified. Any such contributing party shall not be liable to any party seeking contribution on account of any settlement of any claim, action or proceeding affected by such party seeking contribution without the written consent of such contributing party. The contribution provisions contained in this Section 6.4 are intended to supersede, to the extent permitted by law, any right to contribution under the Securities Act, the Exchange Act or otherwise available. **ARTICLE VII. MISCELLANEOUS** **7.1 Termination.** **(a) Termination Right.** The Representative shall have the right to terminate this Agreement at any time prior to any Closing Date, (i) if any domestic or international event or act or occurrence has materially disrupted, or in its reasonable opinion will in the immediate future materially disrupt, general securities markets in the United States; or (ii) if trading on any Trading Market shall have been suspended or materially limited, or minimum or maximum prices for trading shall have been fixed, or maximum ranges for prices for securities shall have been required by FINRA or by order of the Commission or any other government authority having jurisdiction, or (iii) if the United States shall have become involved in a new war or an increase in major hostilities, or (iv) if a banking moratorium has been declared by a New York State or federal authority, or (v) if a moratorium on foreign exchange trading has been declared which materially adversely impacts the United States securities markets, or (vi) if the Company shall have sustained a material loss by fire, flood, accident, hurricane, earthquake, theft, sabotage or other calamity or malicious act which, whether or not such loss shall have been insured, will, in the Representative's reasonable opinion, make it inadvisable to proceed with the delivery of the Public Securities, or (vii) if the Company is in material breach of any of its representations, warranties or covenants hereunder, or (viii) if the Representative shall have become aware after the date hereof of such a material adverse change in the conditions or prospects of the Company, or such adverse material change in general market conditions as in the Representative's reasonable judgment would make it impracticable to proceed with the offering, sale

and/or delivery of the Public Securities or to enforce contracts made by the Underwriters for the sale of the Public Securities. **(b) Expenses.** In the event this Agreement shall be terminated pursuant to Section 7.1(a), within the time specified herein or any extensions thereof pursuant to the terms herein, the Company shall be obligated to pay to the Representative its actual and accountable out of pocket expenses related to the transactions contemplated herein then due and payable, including the fees and disbursements of EGS up to \$70,000 (provided, however, that such expense cap in no way limits or impairs the indemnification and contribution provisions of this Agreement). **(c) Indemnification.** Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement, and whether or not this Agreement is otherwise carried out, the provisions of Article VI shall not be in any way effected by such election or termination or failure to carry out the terms of this Agreement or any part hereof. **7.2 Entire Agreement.** The Transaction Documents, together with the exhibits and schedules thereto, and the Prospectus, contain the entire understanding of the parties with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, oral or written, with respect to such matters, which the parties acknowledge have been merged into such documents, exhibits and schedules. Notwithstanding anything herein to the contrary, the Engagement Agreement, dated March 19, 2024 (â€œEngagement Agreementâ€), by and between the Company and the Representative, shall continue to be effective and the terms therein, including, without limitation, Section D(1) with respect to any future offerings, shall continue to survive and be enforceable by the Representative in accordance with its terms, provided that, in the event of a conflict between the terms of the Engagement Agreement and this Agreement, the terms of this Agreement shall prevail. **7.3 Notices.** Any and all notices or other communications or deliveries required or permitted to be provided hereunder shall be in writing and shall be deemed given and effective on the earliest of: (a) the time of transmission, if such notice or communication is delivered via e-mail attachment at the email address set forth on the signature pages attached hereto at or prior to 5:30 p.m. (New York City time) on a Trading Day, (b) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail attachment at the e-mail address as set forth on the signature pages attached hereto on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (c) the second (2nd) Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service or (d) upon actual receipt by the party to whom such notice is required to be given. The address for such notices and communications shall be as set forth on the signature pages attached hereto. **7.4 Amendments; Waivers.** No provision of this Agreement may be waived, modified, supplemented or amended except in a written instrument signed, in the case of an amendment, by the Company and the Representative. No waiver of any default with respect to any provision, condition or requirement of this Agreement shall be deemed to be a continuing waiver in the future or a waiver of any subsequent default or a waiver of any other provision, condition or requirement hereof, nor shall any delay or omission of any party to exercise any right hereunder in any manner impair the exercise of any such right. **7.5 Headings.** The headings herein are for convenience only, do not constitute a part of this Agreement and shall not be deemed to limit or affect any of the provisions hereof. **7.6 Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the parties and their successors and permitted assigns. **7.7 Governing Law.** All questions concerning the construction, validity, enforcement and interpretation of the Transaction Documents shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal Proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Agreement and any other Transaction Documents (whether brought against a party hereto or its respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of any of the Transaction Documents), and hereby irrevocably waives, and agrees not to assert in any Action or Proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such Action or Proceeding is improper or is an inconvenient venue for such Proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such Action or Proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an Action or Proceeding to enforce any provisions of the Transaction Documents, then, in addition to the obligations of the Company under Article VI, the prevailing party in such Action or Proceeding shall be reimbursed by the other party for its reasonable attorneysâ€™ fees and other costs and expenses incurred with the investigation, preparation and prosecution of such Action or Proceeding. **7.8 Survival.** The representations and warranties contained herein shall survive the Closing and the delivery of the Public Securities. **7.9 Execution.** This Agreement may be executed in two or more counterparts, all of which when taken together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to each other party, it being understood that the parties need not sign the same counterpart. In the event that any signature is delivered by e-mail delivery of a â€œ.pdfâ€ format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such â€œ.pdfâ€ signature page were an original thereof. **7.10 Severability.** If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the parties hereto shall use their commercially reasonable efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any of such that may be hereafter declared invalid, illegal, void or unenforceable. **7.11 Remedies.** In addition to being entitled to exercise all rights provided herein or granted by law, including recovery of damages, the Underwriters and the Company will be entitled to specific performance under the Transaction Documents. The parties agree that monetary damages may not be adequate compensation for any loss incurred by reason of any breach of obligations contained in the Transaction Documents and hereby agree to waive and not to assert in any Action for specific performance of any such obligation the defense that a remedy at law would be adequate. **7.12 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 not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day. **7.13 Construction.** The parties agree that each of them and/or their respective counsel have reviewed and had an opportunity to revise the Transaction Documents and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of the Transaction Documents or any amendments thereto. In addition, each and every reference to share prices and shares of Common Stock in any Transaction Document shall be subject to adjustment for reverse and forward stock splits, stock dividends, stock combinations and other similar transactions of the Common Stock that occur after the date of this Agreement. **7.14 WAIVER OF JURY TRIAL. IN ANY ACTION, SUIT, OR PROCEEDING IN ANY JURISDICTION BROUGHT BY ANY PARTY AGAINST ANY OTHER PARTY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY, THE PARTIES EACH KNOWINGLY AND INTENTIONALLY, TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, HEREBY ABSOLUTELY, UNCONDITIONALLY, IRREVOCABLY AND EXPRESSLY WAIVE FOREVER ANY RIGHT TO TRIAL BY JURY.** **(Signature Pages Follow)** **41** **If the foregoing correctly sets forth the**

understanding between the Underwriters and the Company, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement among the Company and the several Underwriters in accordance with its terms. A A Very truly yours, A A A A ENDRA LIFE SCIENCES INC. A A A A By: A A Name: A A A Title: A A Address for Notice: 3600 Green Court, Suite 350 Ann Arbor, MI 48105-1570 email: ***** A Copy to: K&L Gates LLP Attn: Coleman Wombwell 300 South Tryon Street, Suite 1000 Charlotte, NC 28202 email: ***** A Accepted on the date first above written. CRAIG-HALLUM CAPITAL GROUP LLC As the Representative of the several Underwriters listed on Schedule I By: Craig-Hallum Capital Group LLC A By: A Name: A A Title: A A Address for Notice: 222 South Ninth Street, Suite 350 Minneapolis, Minnesota 55402 email: [] A Copy to: Ellenoff Grossman & Schole LLP Attn: Robert Charron, Esq. 1345 Avenue of the Americas, 11th Floor New York, NY 10105 email: ***** A A 42 A A SCHEDULE I A SCHEDULE OF UNDERWRITERS A Underwriters Shares Pre-Funded Warrants Series A Warrants Series B Warrants Closing Purchase Price A A A A Total A A 43 A EX-4.2 3 endra_ex42.htm EX-4.2 endra_ex42.htm EXHIBIT 4.2 A SERIES A COMMON STOCK PURCHASE WARRANT A ENDRA LIFE SCIENCES INC. A Warrant Shares: _____ Initial Issuance Date: _____, 2024 A THIS SERIES A COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, _____ or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, including the prior receipt of Shareholder Approval as set forth in Section 3(i) at any time on or after the Shareholder Approval Date (as defined below) (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on the five-year anniversary of the Initial Exercise Date, provided that if such date is not a Trading Day, the immediately following Trading Day (the "Termination Date") but not thereafter, to subscribe for and purchase from ENDRA Life Sciences Inc., a Delaware corporation (the "Company"), up to _____ shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). A Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1: A "Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act. A "Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. A "Board of Directors" means the board of directors of the Company. A A 1 A "Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to a stay at home, a shelter-in-place or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. A "Commission" means the United States Securities and Exchange Commission. A "Common Stock" means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. A "Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. A "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. A "Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind. A "Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-____). A "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. A "Shareholder Approval" means such approval as may be required by the applicable rules and regulations of the Nasdaq Stock Market (or any successor entity) from the shareholders of the Company with respect to (i) issuance of all of the Warrants and the Warrant Shares upon the exercise thereof and (ii) to consent to any adjustment to the exercise price or number of shares of Common Stock underlying the Warrants in the event of a Share Combination Event (as defined below). A "Shareholder Approval Date" means the date on which Shareholder Approval is received and deemed effective under Delaware law. A "Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. A A 2 A "Trading Day" means a day on which the Common Stock is traded on a Trading Market. A "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange, (or any successors to any of the foregoing). A "Trading Value" means, with respect to the Company's Common Stock, the daily trading volume on the Company's primary Trading Market as reported by Bloomberg L.P. multiplied by the closing price of the Company's Common Stock on such date. A "Transfer Agent" means VStock Transfer, LLC, the current transfer agent of the Company, with a mailing address of 18 Lafayette Pl, Woodmere, NY 11598 and an email address of _____, and any successor transfer agent of the Company. A "Underwriting Agreement" means the underwriting agreement, dated as of _____, 2024, among the Company and Craig-Hallum Capital Group LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms. A "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. A "Warrants" means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement. A A 3 A Section 2. Exercise. A a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company

of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof. *b*) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be \$_____, subject to adjustment hereunder (the "Exercise Price"). *c*) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may only be exercised, in whole or in part, at such time by means of a cashless exercise in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where: (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of regular trading hours (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during regular trading hours on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of regular trading hours on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of regular trading hours on such Trading Day; (B) = the Exercise Price of this Warrant, as adjusted hereunder; and (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. *d*) Mechanics of Exercise. *i*. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days after delivery of the Notice of Exercise and the aggregate Exercise Price (other than in the case of a cashless exercise) to the Company and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise and the aggregate Exercise Price (other than in the case of a cashless exercise) (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date following payment of the aggregate Exercise Price by the Holder (other than in the case of cashless exercise), the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. *ii*. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant. *iii*. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise. *iv*. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than a failure caused by incorrect or incomplete information provided by the Holder to the Company), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its

exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof. **A 6** **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, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share. **A vi. Charges, Taxes and Expenses.** Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. **A vii. Closing of Books.** The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof. **A 7** **A e) Holder's Exercise Limitations.** The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. **A 8** **A f) Redemption Right.** **A i. Beginning on the Initial Exercise Date,** this Warrant may be redeemed at the option of the Company, in whole or in part, by giving not less than 30 days prior notice as provided in Section 5(h), which notice may not be given before, but may be given at any time after the date on which (i) the VWAP has equaled or exceeded \$[–]2 the Exercise Price for ten (10) consecutive Trading Days and (ii) the average daily Trading Value of the Common Stock for such ten (10) Trading Day period referred to in this Section 2(f)(i) exceeded \$150,000. **A ii.** The price at which this Warrant may be redeemed (the "Redemption Price") is \$0.0001 per Warrant Share. On and after the date upon which such Warrant is redeemed by the Company (the "Redemption Date"), the Holder of a redeemed Warrant shall be entitled to payment of the Redemption Price upon surrender of the Warrant to the Company. **A iii.** Notice of redemption of this Warrant (the "Redemption Notice") shall be given at least 30 days prior to the Redemption Date (the "Redemption Notice Date") by the Company (i) providing notice to the Holder as provided in Section 5(f), (ii) notifying the Holders of such redemption via publication of a press release and (iii) taking such other steps as may be required under applicable law. **A iv.** From and after the Redemption Date, any Warrant Shares noticed for redemption that have not theretofore been exercised by the Holder shall cease to represent the right to purchase any shares of Common Stock and shall be deemed cancelled and void and of no further force or effect without any further act or deed on the part of the Company. **A 2** Insert amount that is 150% of the Exercise Price **A 9** **A v.** By acceptance of this Warrant, the Holder undertakes to return the certificate representing any redeemed Warrant to the Company upon their redemption and to indemnify the Company with respect to any losses, claims, damages or liabilities arising from the Holder's failure to return such certificate. In the event the certificate so returned

represents a number of Warrant Shares in excess of the number being redeemed, the Company shall as promptly as practicable issue to the Holder a new certificate in book-entry form for the number of unredeemed Warrant Shares. ¶ vi. Notwithstanding anything to the contrary set forth in this Warrant, the Company may not require the cancellation of this Warrant (and any related Redemption Notice shall be void), unless, from the beginning of the Redemption Notice Date through the Redemption Date, (1) the Company shall have honored in accordance with the terms of this Warrant all Notices of Exercise delivered by 6:30 p.m. (New York City time) on the Redemption Date, (2) a registration statement shall be effective as to all Warrant Shares and the prospectus thereunder available for use by the Company for the sale of all such Warrant Shares to the Holder, (3) the Common Stock shall be listed or quoted for trading on the Trading Market, (4) there is a sufficient number of authorized shares of Common Stock for issuance of all Warrant Shares, and (5) the issuance of all Warrant Shares subject to a Redemption Notice shall not cause a breach of any provision of Section 2(e) herein. The Company's right to call the Warrants under this Section 2(f) shall be exercised ratably among the Holders based on each Holder's initial purchase of Warrants. ¶ Section 3. Certain Adjustments. ¶ a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification. ¶ ¶ b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). ¶ c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant. ¶ ¶ d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30

days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the VWAP immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier), (D) the sum of the remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the holders of Warrants representing at least a majority of the shares of Common Stock underlying the Warrants then outstanding (the "Required Holders") and approved by the Required Holders (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant and the other Transaction Documents with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(d) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date.

1) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

2) Notice to Holder.

- a) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.
- b) Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 10 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.
- c) Share Combination Event Adjustment. Subject to Shareholder Approval, in addition to the adjustments set forth in Section 3(a) above, if at any time on or after the Issuance Date until the Termination Date, there occurs a share split, reverse share split, share dividend, share combination recapitalization or other similar transaction involving the Common Stock (each, a

â€œShare Combination Eventâ€, and such date thereof, the â€œShare Combination Event Dateâ€) and the lowest VWAP during the 5 consecutive Trading Days commencing on the Share Combination Event Date (the â€œEvent Market Priceâ€) (provided if the Share Combination Event is effective after close of Trading on the primary Trading Market, then commencing on the next Trading Day which period shall be the â€œShare Combination Adjustment Periodâ€) is less than the Exercise Price then in effect (after giving effect to the adjustment in clause 3(a) above), then, as permitted by the rules and regulations of the Trading Market, at the close of trading on the primary Trading Market on the last day of the Share Combination Adjustment Period, the Exercise Price then in effect on such fifth (5th) Trading Day shall be reduced (but in no event increased) to the Event Market Price and the number of Warrant Shares issuable upon exercise of this Warrant hereunder (such resulting number, the â€œShare Combination Issuable Sharesâ€) shall be increased such that the aggregate Exercise Price payable hereunder, after taking into account the decrease in the Exercise Price, shall be equal to the aggregate Exercise Price on the Issuance Date, each such adjustment subject to Shareholder Approval. Notwithstanding the foregoing, if a Share Combination Event occurs prior to the Shareholder Approval being obtained, once the Shareholder Approval is obtained, the Exercise Price will automatically be reduced to the lowest Event Market Price with respect to any Share Combination Event that occurred prior to the Shareholder Approval being obtained and the Share Combination Issuable Shares will automatically be adjusted to equal the highest such number with respect to the Share Combination Event that occurred prior to the Shareholder Approval being obtained. For the avoidance of doubt, if the adjustment in the immediately preceding sentence would otherwise result in an increase in the Exercise Price hereunder, no adjustment shall be made, and if this Warrant is exercised, on any given Exercise Date during the Share Combination Adjustment Period, solely with respect to such portion of this Warrant exercised on such applicable Exercise Date, such applicable Share Combination Adjustment Period shall be deemed to have ended on, and included, the Trading Day immediately prior to such Exercise Date and the Event Market Price on such applicable Exercise Date will be the lowest VWAP of the Common Stock immediately during such the Share Combination Adjustment Period prior to such Exercise Date and ending on, and including the Trading Day immediately prior to such Exercise Date. For the avoidance of doubt, this Section 3(a) shall apply only once, in connection with the first Share Combination Event occurring following the Issuance Date. A A 14 A A h) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company. A i) Shareholder Approval. The Company shall hold a special meeting of shareholders (which may also be at the annual meeting of shareholders) at the earliest practicable date after the date hereof, but in no event later than seventy-five (75) after the Closing Date (as defined in the Underwriting Agreement) (subject to postponement with the prior written consent of the Underwriter) for the purpose of obtaining Shareholder Approval, if required to effect the purpose thereof, with the recommendation of the Companyâ€™s Board of Directors that such proposal be approved, and the Company shall solicit proxies from its shareholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Shareholder Approval, and officers, and directors subject to the Lock-Up Agreement (as defined in the Underwriting Agreement) shall cast their proxies in favor of such proposal. If the Company does not obtain Shareholder Approval at the first meeting, the Company shall call a meeting every three (3) months thereafter to seek Shareholder Approval until the earlier of the date Shareholder Approval is obtained or the Warrants are no longer outstanding. Notwithstanding the foregoing, the Company may, in lieu of holding a special meeting of shareholders as aforesaid, obtain the written consent of a majority of its shareholders covering the Shareholder Approval so long as prior to seventy-five (75) days after the Closing Date, such written consents are obtained and in accordance with Exchange Act Rule 14c-2 at least twenty (20) days shall have transpired from the date on which a written information statement containing the information specified in Schedule 14C detailing such Shareholder Approval shall have been filed with the Commission and delivered to shareholders of the Company. A A 15 A A Section 4. Transfer of Warrant. A a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued. A b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto. A c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the â€œWarrant Registerâ€), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. A Section 5. Miscellaneous. A a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a â€œcashless exerciseâ€ pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant. A A 16 A A b) 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 case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), 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. A c) 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 not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day. A d) Authorized Shares. A 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 further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or

regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants 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 and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue). **A** Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant. **A** **17** **A** **A** Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof. **A** **e**) **Governing Law.** All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. **A** **f**) **Restrictions.** The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws. **A** **g**) **Nonwaiver and Expenses.** No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder. **A** **18** **A** **A** **h**) **Notices.** Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 222 South Ninth Street, Suite 350, Attention: Francois Michelon, email address: *****, or such other email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. **A** **i**) **Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company. **A** **j**) **Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate. **A** **k**) **Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares. **A** **19** **A** **A** **l**) **Amendment and Waiver.** Except as otherwise provided herein, the provisions of this Warrant may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Required Holders. Any such amendment shall apply to all Warrants outstanding and be binding upon all registered holders of such Warrants. **A** **m**) **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. **A** **n**) **Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant. **A** ***** **A** **(Signature Page Follows)** **A** **20** **A** **A** **IN WITNESS WHEREOF,** the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated. **A** **ENDRA LIFE SCIENCES INC.** **A** **A** **A** **A** **By:** _____ **Name:** _____ **Title:** _____ **A** **21** **A** **A** **NOTICE OF EXERCISE** **A** **TO:** **ENDRA LIFE SCIENCES INC.** **A** **(1)** **The undersigned hereby elects to purchase** _____ **Warrant Shares** **of the Company pursuant to the terms of the attached**

Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any. (2) Payment shall take the form of (check applicable box): in lawful money of the United States; or if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c). (3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below: The Warrant Shares shall be delivered to the following DWAC Account Number:

Â _____ Â _____ Â _____

Â [SIGNATURE OF HOLDER] Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

Â Â Â Â ASSIGNMENT FORM (To

assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.) FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to Name:

Â (Please Print) Address: Â Phone Number:

Â Email

Address: Â (Please Print) Â Dated: Â Holder's Signature: Holder's Address: EX-4.3 4 endra ex43.htm EX-4.3 endra ex43.htmEXHIBIT 4.3 A SERIES B COMMON STOCK PURCHASE WARRANT A ENDRA LIFE SCIENCES INC. A Warrant Shares: Initial Issuance Date: , 2024 A THIS SERIES B COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, or its assigns (the "Holder") is entitled, upon

the terms and subject to the limitations on exercise and the conditions hereinafter set forth, including the prior receipt of Shareholder Approval as set forth in Section 3(i) at any time on or after the Shareholder Approval Date (as defined below) (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on the twelve month anniversary of the Initial Exercise Date, provided that if such date is not a Trading Day, the immediately following Trading Day (the "Termination Date") but not thereafter, to subscribe for and purchase from ENDRA Life Sciences Inc., a Delaware corporation (the "Company"), up to shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1: "Affiliate" means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act. "Bid Price" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. "Board of Directors" means the board of directors of the Company. A "Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to stay at home, shelter-in-place, non-essential employee or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. "Commission" means the United States Securities and Exchange Commission. "Common Stock" means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. "Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. "Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind. "Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-____). "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. "Shareholder Approval" means such approval as may be required by the applicable rules and regulations of the Nasdaq Stock Market (or any successor entity) from the shareholders of the Company with respect to (i) issuance of all of the Warrants and the Warrant Shares upon the exercise thereof and (ii) to consent to any adjustment to the exercise price or number of shares of Common Stock underlying the Warrants in the event of a Share Combination Event (as defined below). A "Shareholder Approval Date" means the date on which Shareholder Approval is received and deemed effective under Delaware law. "Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. A "Trading Day" means a day on which the Common Stock is traded on a Trading Market. A "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange, (or any successors to any of the foregoing). A "Transfer Agent" means VStock Transfer, LLC, the current transfer agent of the Company, with a mailing address of 18 Lafayette Pl, Woodmere, NY 11598 and an email address of _____, and any successor transfer agent of the Company. A "Trading Value" means, with respect to the Company's Common Stock, the daily trading volume on the Company's primary Trading Market as reported by Bloomberg L.P. multiplied by the closing price of the Company's Common Stock on such date. A "Underwriting Agreement" means the underwriting agreement, dated as of _____, 2024, among the Company and Craig-Hallum Capital Group LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms. A "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day

from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. "Board of Directors" means the board of directors of the Company. A "Business Day" means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to stay at home, shelter-in-place, non-essential employee or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. "Commission" means the United States Securities and Exchange Commission. "Common Stock" means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. "Common Stock Equivalents" means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. "Exchange Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. "Person" means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind. "Registration Statement" means the Company's registration statement on Form S-1 (File No. 333-____). "Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. "Shareholder Approval" means such approval as may be required by the applicable rules and regulations of the Nasdaq Stock Market (or any successor entity) from the shareholders of the Company with respect to (i) issuance of all of the Warrants and the Warrant Shares upon the exercise thereof and (ii) to consent to any adjustment to the exercise price or number of shares of Common Stock underlying the Warrants in the event of a Share Combination Event (as defined below). A "Shareholder Approval Date" means the date on which Shareholder Approval is received and deemed effective under Delaware law. "Subsidiary" means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. A "Trading Day" means a day on which the Common Stock is traded on a Trading Market. A "Trading Market" means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange, (or any successors to any of the foregoing). A "Transfer Agent" means VStock Transfer, LLC, the current transfer agent of the Company, with a mailing address of 18 Lafayette Pl, Woodmere, NY 11598 and an email address of _____, and any successor transfer agent of the Company. A "Trading Value" means, with respect to the Company's Common Stock, the daily trading volume on the Company's primary Trading Market as reported by Bloomberg L.P. multiplied by the closing price of the Company's Common Stock on such date. A "Underwriting Agreement" means the underwriting agreement, dated as of _____, 2024, among the Company and Craig-Hallum Capital Group LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms. A "VWAP" means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day

from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. "Warrants" means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement. **A. 3. Section 2. Exercise.** **A. a. Exercise of Warrant.** Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof. **A. b. Exercise Price.** The exercise price per share of Common Stock under this Warrant shall be \$_____, subject to adjustment hereunder (the "Exercise Price"). **A. c. Cashless Exercise.** If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may only be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where: (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day; (B) = the Exercise Price of this Warrant, as adjusted hereunder; and (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c). **A. d. Mechanics of Exercise.** **i. Delivery of Warrant Shares Upon Exercise.** The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days after delivery of the Notice of Exercise and the aggregate Exercise Price (other than in the case of a cashless exercise) to the Company and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise and the aggregate Exercise Price (other than in the case of a cashless exercise) (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date following payment of the aggregate Exercise Price by the Holder (other than in the case of cashless exercise), the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. **A. 5. ii. Delivery of New Warrants Upon Exercise.** If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant. **A. iii. Rescission Rights.** If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise. **A. iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise.** In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than a failure

caused by incorrect or incomplete information provided by the Holder to the Company), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof. **A 6. 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, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share. **A vi. Charges, Taxes and Expenses.** Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. **A vii. Closing of Books.** The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof. **A 7. Holder's Exercise Limitations.** The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. **A 8. Redemption Right.** **A i.** Beginning on the Initial Exercise Date, this Warrant may be redeemed at the option of the Company, in whole or in part, by giving not less than 30 days prior notice as provided in Section 5(h), which notice may not be given before, but may be given at any time after the date on which (i) the VWAP has equaled or exceeded \$[â—]2 the Exercise Price for ten (10) consecutive Trading Days and (ii) the average daily Trading Value of the Common Stock on such ten (10) Trading Days referred to in this Section 2(f)(i) exceeded \$150,000. **A ii.** The price at which this Warrant may be redeemed (the "Redemption Price") is \$0.0001 per Warrant Share. On and after the date upon which such Warrant is redeemed by the Company (the "Redemption Date"), the Holder of a redeemed Warrant shall be entitled to

payment of the Redemption Price upon surrender of the Warrant to the Company. Δ iii. Notice of redemption of this Warrant (the "Redemption Notice") shall be given at least 30 daysTM prior to the Redemption Date (the "Redemption Notice Date") by the Company (i) providing notice to the Holder as provided in Section 5(f), (ii) notifying the Holders of such redemption via publication of a press release and (iii) taking such other steps as may be required under applicable law. Δ iv. From and after the Redemption Date, any Warrant Shares noticed for redemption that have not theretofore been exercised by the Holder shall cease to represent the right to purchase any shares of Common Stock and shall be deemed cancelled and void and of no further force or effect without any further act or deed on the part of the Company. Δ v. By acceptance of this Warrant, the Holder undertakes to return the certificate representing any redeemed Warrant to the Company upon their redemption and to indemnify the Company with respect to any losses, claims, damages or liabilities arising from the Holder's failure to return such certificate. In the event the certificate so returned represents a number of Warrant Shares in excess of the number being redeemed, the Company shall as promptly as practicable issue to the Holder a new certificate in book-entry form for the number of unredeemed Warrant Shares. Δ vi. Notwithstanding anything to the contrary set forth in this Warrant, the Company may not require the cancellation of this Warrant (and any related Redemption Notice shall be void), unless, from the beginning of the Redemption Notice Date through the Redemption Date, (1) the Company shall have honored in accordance with the terms of this Warrant all Notices of Exercise delivered by 6:30 p.m. (New York City time) on the Redemption Date, (2) a registration statement shall be effective as to all Warrant Shares and the prospectus thereunder available for use by the Company for the sale of all such Warrant Shares to the Holder, (3) the Common Stock shall be listed or quoted for trading on the Trading Market, (4) there is a sufficient number of authorized shares of Common Stock for issuance of all Warrant Shares, and (5) the issuance of all Warrant Shares subject to a Redemption Notice shall not cause a breach of any provision of Section 2(e) herein. The Company's right to call the Warrants under this Section 2(f) shall be exercised ratably among the Holders based on each Holder's initial purchase of Warrants. Δ Section 3. Certain Adjustments.

Δ a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification. Δ Δ 10 Δ b) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). Δ c) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant. Δ Δ 11 Δ d) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such

Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the holders of Warrants representing at least a majority of the shares of Common Stock underlying the Warrants then outstanding (the "Required Holders") and approved by the Required Holders (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant and the other Transaction Documents with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(d) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date. **A 12 A e) Calculations.** All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding. **A f) Notice to Holder.** **A i. Adjustment to Exercise Price.** Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment. **A ii. Notice to Allow Exercise by Holder.** If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 10 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein. **A 13 A g) Share Combination Event Adjustment.** Subject to Shareholder Approval, in addition to the adjustments set forth in Section 3(a) above, if at any time on or after the Issuance Date until the Termination Date, there occurs a share split, reverse share split, share dividend, share combination recapitalization or other similar transaction involving the Common Stock (each, a "Share Combination Event", and such date thereof, the "Share Combination Event Date") and the lowest VWAP during the 5 consecutive Trading Days commencing on the Share Combination Event Date (the "Event Market Price") (provided if the Share Combination Event is effective after close of Trading on the primary Trading Market, then commencing on the next Trading Day which period shall be the "Share Combination Adjustment Period") is less than the Exercise Price then in effect (after giving effect to the adjustment in clause 3(a) above), then, as permitted by the rules and regulations of the Trading Market, at the close of trading on the primary Trading Market on the last day of the Share Combination Adjustment Period, the Exercise Price then in effect on such fifth (5th) Trading Day shall be reduced (but in no event increased) to the Event Market Price and the number of Warrant Shares issuable upon exercise of this Warrant hereunder (such resulting number, the "Share Combination Issuable Shares") shall be increased such that the aggregate Exercise Price payable hereunder, after taking into account the decrease in the Exercise Price, shall be equal to the aggregate Exercise Price on the Issuance Date, each such adjustment subject to Shareholder Approval. Notwithstanding the foregoing, if a Share Combination Event occurs prior to the Shareholder Approval being obtained, once the Shareholder Approval is obtained, the Exercise Price will automatically be reduced to the lowest Event Market Price with respect to any Share Combination Event that occurred prior to the Shareholder Approval being obtained and the Share Combination Issuable Shares will automatically be adjusted to equal the highest such number with respect to the Share Combination Event that occurred prior to the Shareholder Approval being obtained. For the avoidance of doubt, if the adjustment in the immediately preceding sentence would otherwise result in an increase in the Exercise Price hereunder, no adjustment shall be made, and if this Warrant is exercised, on any given Exercise Date during the Share Combination Adjustment Period, solely with respect to such portion of this Warrant exercised on such applicable Exercise Date, such applicable Share Combination Adjustment Period shall be deemed to have ended on, and included,

the Trading Day immediately prior to such Exercise Date and the Event Market Price on such applicable Exercise Date will be the lowest VWAP of the Common Stock immediately during such the Share Combination Adjustment Period prior to such Exercise Date and ending on, and including the Trading Day immediately prior to such Exercise Date. For the avoidance of doubt, this Section 3(a) shall apply only once, in connection with the first Share Combination Event occurring following the Issuance Date. A 14 h) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company. i) Shareholder Approval. The Company shall hold a special meeting of shareholders (which may also be at the annual meeting of shareholders) at the earliest practicable date after the date hereof, but in no event later than seventy-five (75) after the Closing Date (as defined in the Underwriting Agreement) (subject to postponement with the prior written consent of the Underwriter) for the purpose of obtaining Shareholder Approval, if required to effect the purpose thereof, with the recommendation of the Company's Board of Directors that such proposal be approved, and the Company shall solicit proxies from its shareholders in connection therewith in the same manner as all other management proposals in such proxy statement and all management-appointed proxyholders shall vote their proxies in favor of such proposal. The Company shall use its reasonable best efforts to obtain such Shareholder Approval, and officers, and directors subject to the Lock-Up Agreement (as defined in the Underwriting Agreement) shall cast their proxies in favor of such proposal. If the Company does not obtain Shareholder Approval at the first meeting, the Company shall call a meeting every three (3) months thereafter to seek Shareholder Approval until the earlier of the date Shareholder Approval is obtained or the Warrants are no longer outstanding. Notwithstanding the foregoing, the Company may, in lieu of holding a special meeting of shareholders as aforesaid, obtain the written consent of a majority of its shareholders covering the Shareholder Approval so long as prior to seventy-five (75) days after the Closing Date, such written consents are obtained and in accordance with Exchange Act Rule 14c-2 at least twenty (20) days shall have transpired from the date on which a written information statement containing the information specified in Schedule 14C detailing such Shareholder Approval shall have been filed with the Commission and delivered to shareholders of the Company. 15 Section 4. Transfer of Warrant. a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued. b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto. c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. Section 5. Miscellaneous. a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant. 16 b) 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 case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), 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. c) 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 not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day. d) 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 further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants 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 and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue). Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant. 17 Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof. e) Governing Law. All questions concerning the construction,

validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. **f) Restrictions.** The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws. **g) Nonwaiver and Expenses.** No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder. **h) Notices.** Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 222 South Ninth Street, Suite 350, Attention: Francois Michelon, email address: *****, or such other email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. **i) Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company. **j) Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate. **k) Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares. **l) Amendment and Waiver.** Except as otherwise provided herein, the provisions of this Warrant may be amended and the Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company has obtained the written consent of the Required Holders. Any such amendment shall apply to all Warrants outstanding and be binding upon all registered holders of such Warrants. **m) 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. **n) Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant. ********* **(Signature Page Follows)** **IN WITNESS WHEREOF,** the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated. **ENDRA LIFE SCIENCES INC.**

By: _____ Name: Title: _____ 21 NOTICE OF EXERCISE TO: ENDRA LIFE SCIENCES INC. (1) The undersigned hereby elects to purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any. (2) Payment shall take the form of (check applicable box): [] in lawful money of the United States; or [] if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c). (3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below: _____ The Warrant Shares shall be delivered to the following DWAC Account Number: _____

holder: A _____ A _____
Â [SIGNATURE OF HOLDER] Â Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Signature
Name of Authorized Signatory:

Title of Authorized Signatory:

Title of
Document

A A (Please Print) A Address: _____ **A A Phone Number:** _____

Â (Please Print) Â

Â

Â Dated:

Holderâ€™s Signature:Â EX-4.4 5
Holderâ€™s Address:Â EX-4.4 EXHIBIT 4.4 Â PRE-FUNDED COMMON STOCK PURCHASE WARRANT Â ENDRA LIFE SCIENCES INC. Â Warrant Shares: _____ Initial Exercise Date: _____, 2024 Â THIS PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the â€œWarrantâ€) certifies that, for value received, _____ or its assigns (the â€œHolderâ€) 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 hereof (the â€œInitial Exercise Dateâ€) and until this Warrant is exercised in full (the â€œTermination Dateâ€) but not thereafter, to subscribe for and purchase from ENDRA Life Sciences Inc., a Delaware corporation (the â€œCompanyâ€), up to _____ shares (as subject to adjustment hereunder, the â€œWarrant Sharesâ€) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). Â Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1: Â â€œAffiliateâ€ means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act. Â â€œBid Priceâ€ means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. Â â€œBoard of Directorsâ€ means the board of directors of the Company. Â Â 1 Â Â
â€œBusiness Dayâ€ means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to â€œstay at homeâ€, â€œshelter-in-placeâ€, â€œnon-essential employeeâ€ or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. Â â€œCommissionâ€ means the United States Securities and Exchange Commission. Â â€œCommon Stockâ€ means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. Â â€œCommon Stock Equivalentsâ€ means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. Â â€œExchange Actâ€ means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. Â â€œPersonâ€ means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind. Â â€œRegistration Statementâ€ means the Companyâ€™s registration statement on Form S-1 (File No. 333-____). Â â€œSecurities Actâ€ means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. Â â€œSubsidiaryâ€ means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. Â â€œTrading Dayâ€ means a day on which the Common Stock is traded on a Trading Market. Â â€œTrading Marketâ€ means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange, (or any successors to any of the foregoing). Â Â 2 Â Â
â€œTransfer Agentâ€ means VStock Transfer, LLC, the current transfer agent of the Company, with a mailing address of 18 Lafayette Pl, Woodmere, NY 11598 and an email address of _____, and any successor transfer agent of the Company. Â â€œUnderwriting Agreementâ€ means the underwriting agreement, dated as of _____, 2024, among the Company and Craig-Hallum Capital Group LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms. Â â€œVWAPâ€ means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. Â â€œWarrantsâ€ means this Warrant and other Pre-Funded Common Stock purchase warrants issued by the Company pursuant to the Registration Statement. Â Section 2. Exercise. Â a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the â€œNotice of Exerciseâ€). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashierâ€™s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time

may be less than the amount stated on the face hereof. **b) Exercise Price.** The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.0001 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercise Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.0001 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be \$0.0001, subject to adjustment hereunder (the "Exercise Price"). **c) Cashless Exercise.** This Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where: (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. ("Bloomberg") as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day; (B) = the Exercise Price of this Warrant, as adjusted hereunder; and (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. **d) Warrant Shares.** If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c). Notwithstanding anything herein to the contrary, on the Termination Date, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c). **e) Mechanics of Exercise.** **i. Delivery of Warrant Shares Upon Exercise.** The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Underwriting Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received by such Warrant Share Delivery Date. **ii. Delivery of New Warrants Upon Exercise.** If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant. **iii. Rescission Rights.** If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise. **iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise.** In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than a failure caused by incorrect or incomplete information provided by the Holder to the Company), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof. **v. 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, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share. **A vi. Charges, Taxes and Expenses.** Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. **A 7 A vii. Closing of Books.** The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof. **A e) Holder's Exercise Limitations.** The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. **A 8 A Section 3. Certain Adjustments.** **A a) Stock Dividends and Splits.** If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification. **A 9 A b) Subsequent Rights Offerings.** In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if

ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). **c) Pro Rata Distributions.** During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a â€œDistributionâ€), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant. **Â 10 Â d) Fundamental Transaction.** If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company (each a â€œFundamental Transactionâ€), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the â€œAlternate Considerationâ€) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the â€œSuccessor Entityâ€) to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term â€œCompanyâ€ under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the â€œCompanyâ€ shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant and the other Transaction Documents with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(d) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date. **Â 11 Â e) Calculations.** All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding. **Â f) Notice to Holder.** **i. Adjustment to Exercise Price.** Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment. **ii. Notice to Allow Exercise by Holder.** If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email

address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein. \wedge \wedge \wedge g) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company. \wedge Section 4. Transfer of Warrant. \wedge a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued. \wedge \wedge \wedge b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto. \wedge c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary. \wedge Section 5. Miscellaneous. \wedge a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant. \wedge b) 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 case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), 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. \wedge \wedge \wedge c) 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 not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day. \wedge d) Authorized Shares. \wedge 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 further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants 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 and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue). \wedge Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant. \wedge \wedge \wedge Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof. \wedge e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed

herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding. **f) Restrictions.** The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws. **g) Nonwaiver and Expenses.** No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder. **h) Notices.** Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 222 South Ninth Street, Suite 350, Attention: Francois Michelon, email address: *****, or such other email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. **i) Limitation of Liability.** No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company. **j) Remedies.** The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate. **k) Successors and Assigns.** Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares. **l) Amendment.** This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder or the beneficial owner of this Warrant, on the other hand. **m) 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. **n) Headings.** The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant. ********* **IN WITNESS WHEREOF,** the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated. **ENDRA LIFE SCIENCES INC.** **By:** **Name:** **Title:** **19** **NOTICE OF EXERCISE** **TO:** **ENDRA LIFE SCIENCES INC.** **(1)** **The undersigned hereby elects to purchase** **Warrant Shares** **of the Company pursuant to the terms of the attached Warrant** **(only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.** **(2)** **Payment shall take the form of (check applicable box):** **[]** **in lawful money of the United States; or** **[]** **if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).** **(3)** **Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:** **_____** **The Warrant Shares shall be delivered to the following DWAC Account Number:** **_____** **_____** **_____**

AC Account Number: A _____ A _____
Â [SIGNATURE OF HOLDER] Â Name of Investing Entity:

Signature of Authorized Signatory of Investing Entity:

Name of Authorized Signatory:

Title of Authorized Signatory:

Date:

ASSIGNMENT FORM (To

assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.) FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to Name: (Please Print) Address: (Please Print) Phone Number: Email Address: Dated: , Holder's Signature: Holder's Address: Holder's Address: EX-4.5 6 endra_ex45.htm EX-4.5 endra_ex45.htmEXHIBIT 4.5 UNDERWRITER'S COMMON STOCK PURCHASE WARRANT ENDRA LIFE SCIENCES INC. Warrant Shares: Initial Issuance Date: , 2024 THIS UNDERWRITER'S COMMON STOCK PURCHASE WARRANT (the "Warrant") certifies that, for value received, or its assigns (the "Holder") is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, the date hereof (the "Initial Exercise Date") and on or prior to 5:00 p.m. (New York City time) on the (the "Termination Date") but not thereafter, to subscribe for and purchase from ENDRA Life Sciences Inc., a Delaware corporation (the "Company"), up to shares (as subject to adjustment hereunder, the "Warrant Shares") of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings

indicated in this Section 1: **A** **â€œAffiliateâ€** means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act. **B** **â€œBid Priceâ€** means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. **C** **â€œBoard of Directorsâ€** means the board of directors of the Company. **D**

1 Insert the date that is the three and one half year anniversary of the Initial Exercise Date,

provided that, if such date is not a Trading Day, insert the immediately following Trading Day. **E** **1** **â€œBusiness Dayâ€** means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to **â€œstay at homeâ€**, **â€œshelter-in-placeâ€**, **â€œnon-essential employeeâ€** or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day. **F** **â€œCommissionâ€** means the United States Securities and Exchange Commission. **G** **â€œCommon Stockâ€** means the common stock of the Company, par value \$0.0001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed. **H** **â€œCommon Stock Equivalentsâ€** means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock. **I** **â€œExchange Actâ€** means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. **J** **â€œPersonâ€** means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind. **K** **â€œRegistration Statementâ€** means the Companyâ€™s registration statement on Form S-1 (File No. 333-____). **L** **â€œSecurities Actâ€** means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder. **M** **â€œSubsidiaryâ€** means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof. **N** **â€œTrading Dayâ€** means a day on which the Common Stock is traded on a Trading Market. **O** **â€œTrading Marketâ€** means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange, (or any successors to any of the foregoing). **P** **2** **â€œTransfer Agentâ€** means VStock Transfer, LLC, the current transfer agent of the Company, with a mailing address of 18 Lafayette Pl, Woodmere, NY 11598 and an email address of _____, and any successor transfer agent of the Company. **Q** **â€œUnderwriting Agreementâ€** means the underwriting agreement, dated as of _____, 2024, among the Company and Craig-Hallum Capital Group LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms. **R** **â€œVWAPâ€** means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company. **S** **â€œWarrantsâ€** means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement. **T** Section 2. Exercise. **U** a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the **â€œNotice of Exerciseâ€**). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashierâ€™s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof. **V** **3** **b**) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be \$____, subject to adjustment hereunder (the **â€œExercise Priceâ€**). **c**) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may only be exercised, in whole or in part, at such time by means of a **â€œcashless exerciseâ€** in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where: **A** (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of **â€œregular trading hoursâ€** (as defined in Rule 600(b) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) the Bid Price of the Common Stock on the principal

Trading Market as reported by Bloomberg L.P. (â€œBloombergâ€) as of the time of the Holderâ€™s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during â€œregular trading hoursâ€ on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of â€œregular trading hoursâ€ on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of â€œregular trading hoursâ€ on such Trading Day; (B) = the Exercise Price of this Warrant, as adjusted hereunder; and (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise. If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c). 4. Mechanics of Exercise. i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holderâ€™s or its designeeâ€™s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (â€œDWACâ€) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Companyâ€™s share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (i) two (2) Trading Days after delivery of the Notice of Exercise and the aggregate Exercise Price (other than in the case of a cashless exercise) to the Company and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise and the aggregate Exercise Price (other than in the case of a cashless exercise) (such date, the â€œWarrant Share Delivery Dateâ€). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date following payment of the aggregate Exercise Price by the Holder (other than in the case of cashless exercise), the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the fifth Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, â€œStandard Settlement Periodâ€ means the standard settlement period, expressed in a number of Trading Days, on the Companyâ€™s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. 5. ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant. iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise. iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than a failure caused by incorrect or incomplete information provided by the Holder to the Company), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holderâ€™s brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a â€œBuy-Inâ€), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holderâ€™s total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holderâ€™s right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Companyâ€™s failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof. 6. v. 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, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round up to the next whole share. vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that, in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares. vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof. e) Holderâ€™s Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holderâ€™s Affiliates, and any other Persons acting as a group together with the Holder or any of the Holderâ€™s Affiliates (such Persons, â€œAttribution Partiesâ€)), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares

of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant. **A 7 A 3. Certain Adjustments.** **A a) Stock Dividends and Splits.** If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or reclassification. **A b) Subsequent Rights Offerings.** In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). **A 8 A c) Pro Rata Distributions.** During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise, other than cash (including, without limitation, any distribution of stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant. **A 9 A d) Fundamental Transaction.** If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the

Company or any Subsidiary, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of greater than 50% of the outstanding Common Stock or greater than 50% of the voting power of the common equity of the Company, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires greater than 50% of the outstanding shares of Common Stock or greater than 50% of the voting power of the common equity of the Company (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration ("the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company's control, including not approved by the Company's Board of Directors, the Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Common Stock of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Common Stock are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Common Stock of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Common Stock will be deemed to have received common stock of the Successor Entity (which Successor Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. "Black Scholes Value" means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of (1) the 30 day volatility, (2) the 100 day volatility or (3) the 365 day volatility, each of clauses (1)-(3) as obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable contemplated Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the VWAP immediately preceding the public announcement of the applicable contemplated Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier), (D) the sum of the remaining option time equal to the time between the date of the public announcement of the applicable contemplated Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within the later of (i) five Business Days of the Holder's election and (ii) the date of consummation of the Fundamental Transaction. The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(d) pursuant to written agreements in form and substance reasonably satisfactory to the holders of Warrants representing at least a majority of the shares of Common Stock underlying the Warrants then outstanding (the "Required Holders") and approved by the Required Holders (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall be added to the term "Company" under this Warrant (so that from and after the occurrence or consummation of such Fundamental Transaction, each and every provision of this Warrant and the other Transaction Documents referring to the "Company" shall refer instead to each of the Company and the Successor Entity or Successor Entities, jointly and severally), and the Successor Entity or Successor Entities, jointly and severally with the Company, may exercise every right and power of the Company prior thereto and the Successor Entity or Successor Entities shall assume all of the obligations of the Company prior thereto under this Warrant and the other Transaction Documents with the same effect as if the Company and such Successor Entity or Successor Entities, jointly and severally, had been named as the Company herein. For the avoidance of doubt, the Holder shall be entitled to the benefits of the provisions of this Section 3(d) regardless of (i) whether the Company has sufficient authorized shares of Common Stock for the issuance of Warrant Shares and/or (ii) whether a Fundamental Transaction occurs prior to the Initial Exercise Date. (e) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding. (f) Notice to Holder. (i) Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3,

the Company shall promptly deliver to the Holder by email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

Â ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company (or any of its Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by email to the Holder at its last email address as it shall appear upon the Warrant Register of the Company, at least 10 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Â 11 Â g) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Â Section 4. Transfer of Warrant.

Â a) Transferability. Pursuant to FINRA Rule 5110(e), neither this Warrant nor any Warrant Shares issued upon exercise of this Warrant shall be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which this Warrant is being issued, except the transfer of any security: (i) by operation of law or by reason of reorganization of the Company; (ii) to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period; (iii) if the aggregate amount of securities of the Company held by the Holder or related person do not exceed 1% of the securities being offered; (iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or (v) the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction in this Section 4(a) for the remainder of the time period.

Â b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

Â c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the "Warrant Register"), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Â Section 5. Miscellaneous.

Â a) No Rights as Stockholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive Warrant Shares on a "cashless exercise" pursuant to Section 2(c) or to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

Â 12 Â b) 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 case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), 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.

Â c) 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 not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

Â d) 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 further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants 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 and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Â Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its

Ä The Warrant Shares shall be delivered to the following DWAC Account Number: Ä

- \hat{A}

— A [SIGNATURE OF
Signer 1] [Signature of
Signer 2]

HOLDER] A Name of Investing Entity: _____
Authorized Signatory of Investing Entity: _____

Signature of
Authorised Signatory

Authorized Signatory of Investing Entity: _____ Title: _____

Name of Authorized Signatory:

Title of

Date:

18 ASSIGNMENT FORM (To

assign the foregoing Warrant, execute this form and supply required information.Â Do not use this form to purchase shares.)Â FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to Â Name: Â Â Â (Please Print) Â Address: Â (Please Print) Â Â Phone Number: Â Â Â Email Address: Â Â Â Dated: _____, _____ Â Â Â Holderâ€™s Signature:Â _____ Â Â Â Holderâ€™s Address: _____ Â Â Â 19

Â EX-4.6 7 endra_ex46.htm EX-4.6 endra_ex46.htmEXHIBIT 4.6 Â LOCK-UP AGREEMENT Â _____, 2024 Â Craig-Hallum Capital Group LLC Acting as representative to the several underwriters Â Â Re:Â Underwriting Agreement, dated as of _____, 2024 (the â€œUnderwriting Agreementâ€), by and between ENDRA Life Sciences Inc. (the â€œCompanyâ€) and Craig-Hallum Capital Group LLC acting as representative (the â€œRepresentativeâ€) to the several underwriters (each, an â€œUnderwriterâ€ and collectively the â€œUnderwritersâ€) Â Ladies and Gentlemen: Â Defined terms not otherwise defined in this letter agreement (the â€œLetter Agreementâ€) shall have the meanings set forth in the Underwriting Agreement. The undersigned irrevocably agrees with the Company that, from the date hereof until 90 days following the Closing Date (such period, the â€œRestriction Periodâ€) the undersigned will not offer, sell, contract to sell, hypothecate, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by the undersigned or any Affiliate of the undersigned or any person in privity with the undersigned or any Affiliate of the undersigned), directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended (the â€œExchange Actâ€), with respect to, any shares of Common Stock of the Company or securities convertible, exchangeable or exercisable into, shares of Common Stock of the Company beneficially owned, held or hereafter acquired by the undersigned (the â€œSecuritiesâ€). Beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act. In order to enforce this covenant, the Company shall impose irrevocable stop-transfer instructions preventing the transfer agent of the Company from effecting any actions in violation of this Letter Agreement. The Representative may consent to an early release from the Restriction Period if, in its sole and absolute discretion, the market for the Securities would not be adversely impacted by sales. Â Notwithstanding the foregoing, and subject to the conditions below, the undersigned may transfer the Securities provided that (1) the Company receives a signed lock-up letter agreement (in the form of this Letter Agreement) for the balance of the Restriction Period from each donee, trustee, distributee, or transferee, as the case may be, prior to such transfer, (2) any such transfer shall not involve a disposition for value, (3) (i) such transfer is not required to be reported with the Securities and Exchange Commission in accordance with the Exchange Act and no report of such transfer shall be made voluntarily or (ii) if such transfer is required to be so reported, the corresponding filing under Section 16(a) of the Exchange Act indicates that such transfer was a gift or otherwise not involving a disposition for value, and (4) neither the undersigned nor any donee, trustee, distributee or transferee, as the case may be, otherwise voluntarily effects any public filing or report regarding such transfers, with respect to transfer: Â Â 1 Â Â Â i) as aÂ bona fideÂ gift or gifts; Â Â ii) to any immediate family member or to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this Letter Agreement, â€œimmediate familyâ€ shall mean any relationship by blood, marriage or adoption, not more remote than first cousin); Â Â iii) to any corporation, partnership, limited liability company, or other business entity all of the equity holders of which consist of the undersigned and/or the immediate family of the undersigned; Â Â iv) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity (a) to another corporation, partnership, limited liability company, trust or other business entity that is an Affiliate of the undersigned or (b) in the form of a distribution to limited partners, limited liability company members or stockholders of the undersigned; Â Â v) if the undersigned is a trust, to the beneficiary of such trust; or Â Â vi) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the undersigned. Â In addition, notwithstanding the foregoing, this Letter Agreement shall not restrict the delivery of shares of Common Stock to the undersigned upon (i) exercise any options granted under any employee benefit plan of the Company; provided that any shares of Common Stock or Securities acquired in connection with any such exercise will be subject to the restrictions set forth in this Letter Agreement, or (ii) the exercise of warrants; provided that such shares of Common Stock delivered to the undersigned in connection with such exercise are subject to the restrictions set forth in this Letter Agreement. Additionally, this Letter Agreement shall not restrict the sale of shares of Common Stock to cover the payment of the exercise prices or the payment of taxes associated with the exercise or vesting of equity awards under any equity compensation plan of the Company; provided, that any Form 4 or Form 5 required to be filed under the Exchange Act if the undersigned is subject to Section 16 reporting with respect to the Company under the Exchange Act will indicate by footnote that such sale was made under the circumstances described in this clause; and provided further that no other filing under the Exchange Act or other public announcement shall be required or shall be made voluntarily in connection with such sale during the Restriction Period. Â Furthermore, the undersigned may enter into any new plan established in compliance with Rule 10b5-1 of the Exchange Act; provided that (i) such plan may only be established if no public announcement or filing with the Securities and Exchange Commission, or other applicable regulatory authority, is made in connection with the establishment of such plan during the Restriction Period, except as required in any Quarterly Report on Form 10-Q or Annual Report on Form 10-K, and (ii) no sale of shares of Common Stock are made pursuant to such plan during the Restriction Period. Â Â 2 Â Â The undersigned acknowledges that the execution, delivery and performance of this Letter Agreement is a material inducement to the Company to complete the transactions contemplated by the Underwriting Agreement and the Company shall be entitled to specific performance of the undersignedâ€™s obligations hereunder. The undersigned hereby represents that the undersigned has the power and authority to execute, deliver and perform this Letter Agreement, that the undersigned has received adequate consideration therefor and that the undersigned will indirectly benefit from the closing of the transactions contemplated by the Underwriting Agreement. Â This Letter Agreement may not be amended or otherwise modified in any respect without the written consent of each of the Company, the Representative and the undersigned. This Letter Agreement shall be construed and enforced in accordance with the laws of the State of New York without regard to the principles of conflict of laws. The undersigned hereby irrevocably submits to the exclusive jurisdiction of the United States District Court sitting in the Southern District of New York and the courts of the State of New York located in Manhattan, for the purposes of any suit, action or proceeding arising out of or relating to this Letter Agreement, and hereby waives, and agrees not to assert in any such suit, action or proceeding, any claim that (i) it is not personally subject to the jurisdiction of such court, (ii) the suit, action or proceeding is brought in an inconvenient forum, or (iii) the venue of the suit, action or proceeding is improper. The undersigned hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by receiving a copy thereof sent to the Company at the address in effect for notices to it under the Underwriting Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. The undersigned hereby waives any right to a trial by jury. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. The undersigned agrees and understands that this Letter Agreement does not intend to create any relationship between the undersigned and each Underwriter and that each Underwriter is not entitled to cast any votes on the matters herein contemplated and that no issuance or sale of the Securities is created or intended by virtue of this Letter Agreement. Â This Letter Agreement shall be binding on successors and assigns of the undersigned with respect to the Securities and any such successor or assign shall enter into a similar agreement for the benefit of the Company. This Letter Agreement is intended for the benefit of the parties hereto and their respective successors and permitted assigns and is not for the benefit of, nor may any provision hereof be enforced by, any other Person. Â The undersigned understands that, if (i) the Closing (as defined in the Underwriting Agreement) shall not have occurred by [â€¢], 2024, (ii) the Underwriting Agreement

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M'4JL:/MS2?%FCZT4=G,4M'J'BZ^U/2;OH=7L+-I4G>&TM<2QQDS*(6&TD\A"0 M>F\BMSP-#X@TV33;*\^U_8;BSN9I8KB,
6THN/D4\$#(RK'@DYQFNQU#7=)T MO3UO;J]C\I]NS8X8R;F"@J ?F&62G;?KFE:EI"ZI:7L1M2H>*YX=62Z%BUM)(R7\$.WR)1*
J;MBC[A/+ @9S7I58L>O:3] MKN[?180B:0%)([L F) VS#=#G:>E.M==T^T:UUB.YCCLKJ-9(I)CY8;[I MT :%4TNX6N?
L_GPF8+N,:N"V/7'7%7* @"*** *6!;ILY%>27^L)KU M;66VZ14S+S[E_4TR5BTF25NPQ^=-[\$HU@,,#BK*CJ\KIRXJ>HB
M:2,"XC\K4)\$3=Q4JE?.4N?E!%)J7&H'Z TPPS.NY%8@=P.*[=V>=6:ZNQ6 MU%8X[21< \$R3-DL03]*Y*[\H':S,S?
P@=172ZL95C5%&2%X'UKE[BZC@.'4R M\$]6QWKZ" E**T/CISI0G*S0ZVC4Q'S9BIGH!3Q%91MN1GS50WJ&\$8MQ^>*SY
MII#EED,?L!67LY-G4J],4]S3DCCQ^D=3Z&LB[F>1!&CAP#/\WK46^X]2"U"DY-YXL%8B8 NPQ0CG: #V"29RBQA0 .>3
M5JY5(HT5BV0N<8[UD/,^4'WKK;2/(A&4S5BN9E=)C@8%3F[D;7M!‐C#]G,R3 MPW"Y7=&QCD5]K#T.,9]ZZ6LG5-
2M=)LI+Z(F\$-NF 7(Y)P .222 .I-? M'&ZF<8_@".F3L3IQU6;4?MLDR1; 19V[H@Q!*=‐#&@XP*S;X:ZM;V26S7&
MGW!9[=VFE5F>WJY:;&<=&QVY'2NV_X3#P^6MU_M#!N&V+NB<6W[,-D?(M=WRX;‐4X_ (:FU>QTNUOI+F>]9UB,5O(R?

+P26QC&01GID&@#D[?X8ZM' M"+-=0T^.W:2.:2>.%A.66#RL ^G\70GM5^Q^'MW_ &_8ZEJ"Z8L-K&(C9P1% MHWVP/&),\$;B7]. ,9=%'XPTL> (=1T6ZF^RW%G.L +@E92T0E&#C .">"I MC!_N\$8/K6]-
XR\0S21R:I&AC5F9V5@GRIO8;L8+!>=N<^U9MKXZM[WQ!#I MK92-;27OV#[2Q*%9#;^W*7"[MHXV>((OE#"C'00
/O9PIGU)KT.B@#R. ^&^M:DTTE[>:M:40@.ZGT_591_[+&JWMU'.LD4&%C1516B!() *H
M1G'&9NE..#CC^+DFO5**0'EUGA.;Z.VO6N[JR:]N) M+>1)DC.8?+N7F;:3R,A| C'3FKGAWP;?Z+?M2>:]%II0\$YH \IT?
P7=:IX7M9I8ULK[^S;"S5;J\$B6WDMI2SG/;UI MUK|-0_MFWO+ZZM)(HI8GD3:2)RDQDW;< +G/3G![UZJ% Q2T >52_#?4ECN
M+>";39(KF2-@T;K54NWG BQTR'QVP1GFFS#?>[6UTR.UN[6-K.W@25(8.U MN7CE+DD@'@GD@|UZO10!Y3;_#O4K.YM[V-
["?RB#]CGWO\$83_?/-=E+X#SZG0K]C5#4GVV1&<%R%JW K\$UB3YHXA]S5 M(OH9' #-C-%#=P^79(?XG^8U@PJ6?:I.*ZM5"
(J@<8H>PNHB+U2\$4@'S4K M@)8 F!Z\$FF:N,-%)C.1BJXD,L>"V-BD^QQ M7J8245+4+;Z^4BF(X.QN36'(.X.^;
(C'NYW^K6IQS9+JF MX|YQ7/ MYGN^*C51->Z?#?57"7O,ORV?E(DB3K(C>G*&@6103YT)5.5RH!S[T
MR.2[V295!8MD#J,597PY,LJ>3,5P>O4BHK3[MU.Z3"YX!S@?2KC4BD.>"J2FFC
MG[WS]!YLI^9N>3P*R/+7=ZGVK;ETN6WD", -N<#MU%9\$D<["T5%S3V:/L^*L/7M'&M:
MJA:=KO?%2MX1U.'Q#IEZUXVH,=1_M&\N9=L>TI,&!\$1%??.;FO M0-U+0 #I12 YHR* %HI-PHW"!@!:*3<*6@ HHHH
***"BC-% !10#FB@ HI M 0>E+0 4444 %!HH '-.^)YO+TTKW;BO-9F^9J[3QA=?O8X>G-<-(V2:[8Z
M01YOQ5)2(V,M7.:E)OOG]N*WV;YO:N6N)/,N';U8FE%F[6Q9TV/S+Q >@. [MJZ=BN, /F'EDZTV%E(/6HW.31:Q-
M|E* _A62T+L<',[N*Q;AVAMIBNT*5/&QK>NMK:=*C-C..G6J+(L-LPEB1V !6 M-CA8QZN?
Z5ZV&=.\$.:6Y/WCIU93Y([#W%C=WB&X:3[-.L\|C; /IZU)I6C6 M\TNSSKS4
3]Z.:@_P"!-6W(J7MP)MF3G;<7"Y7/_3*/^M>@^&]"@L[<=S M=-+..561=YSZ[1POTK&KC9P5UH3A<"\$5%#%5<>?3Y
_A:@T^*ZBADVR;MP['_M*40,*[.8580XKD8WAO"UXM%* MO,XF\T9ED8ROX/>^\$?
*Q+K2Y80TL@P2<=O:O;XOL4CQBZM4GFV_*3P0/>L M[5?
#.GWGRVI:W<_B":@^I9G&6DSVQO"U:G)NB[H/D61(3\N"3SCO61,K2;
MCSN'K7JVL!5MH#MA\$D742)\RUPMYHUW"7CD 4-R3Z^PKTHUX3^%GRM7+ZV
M';52)N>\$[+SM*GDV#F<_@+12>\$YY%TNX7:W%P1_XXM%/G1P>SD?4.I7GB"W MUO2K?3=*BN[">1EO;AYMAME
^4A?XLFL'XH7VIZ;/KVZTG6H-&N_@074\H MB4*TJAE\$A5A&S E0Q!)!-=_MJK;/PW\$#PW\$:31.-K)
(H96'H0>#7PY^H)6Z MGSYH?Q*U[3]3L-/CURUGTPZG:-W<^NWL=QY8%O^*L<-S -LI.XXR-V[Y>U7K
M#XX:WJ&F3WQT/2[1&N;6%*[B^*))IFB(N.,JRX#\$@8YQ7M4>CZ3';16T6EV ML<\$+B2.)8\$"QO_>
Q@'W%9VJ>#_#^K1%<:"BK>17S>5&J>:+&V5+X'SC/4 M'K04<JWCZ2_#'_DUUJCZ')>BQ>XTIEG\TK<>4?
(=*)CB1N%!SVK5^ M&>HZY=&[ZIK4%_!JLG^RB6^BNKI(\$V+))\$=C,"6+=<KS7>2:7ITE@-/DL M;>2T4 "W:3&
.@VXQ4%II^D6)%KI]E:6A4%_*MXD0J&X)P!WQU[XH \R;Q| M>6?
B#5M: ^U3W&E3K=VUG;21LMNLELA9'63;C]Z5F!P3T7%:+?+\$+5A?II^W2/ M-*->I,[>20+<3!?] [G!YZ8/M7?7VCV&I:3-I-
Q"!>31M&40!=H(P=OH>3R* MIOX3T)I;%FT^'98JXACV+L^=0K%EQACA1R: .(T+Q)J4UR8YK8ROJNH!%+G
MYBSY9DB.!_C;QZUK:Q#JE^)-A)/KVJ6U@UC;F2-'^4K(R@Y4]1S MV-4!X4_C36GL)!<:I>POK\$JK?VRRL;/R(FN DENLK*
(S\$V><:F):[2=>^ MR:[=6UYK2Q6@TC[1&L]^MPHD\VO,PE.-Q "Y';BO0+C3K&\A\$-Y:07,0& DT M:NH'T(JL?#^A?9X[?
^QK'R8B6CC^SIM0GJ0,8%2!Y'HGB'5)+;3=1U/7KNZ= MIK*-FM[J4>(ND8,4EJRC?DL26&20V1TKK-6<7NE^(J0L5M[-
[>REMH3&9#Y M\WG(3E1TP1'OD9Z8KM&TG3'0%O7L+9KM,;9S"OF+CIAL9%5(_#^F1:S=ZL+5
M9+VZV;Y)%#;\$5V#;D<<=?6CJ!Q\$GCCQ!!IUM=75KI,33:4VL*3-)MDC" H3" N M?
X\MUY!XXK/A^(6L:7IMU>7\$,&I+)=7HBA\|P^? \$D 42#H% 8#MCCUKU6;3= M/N/*%Q:03+\$]D33+ M)?
[,AFFNM[._ES!,* 3@D').".]_=IZZ->6+0::MC-8DLK+;>6T>>X(7C- M2R6^DV-MAH;2VAP5P51%(ZD>GO2
XO2_ \$^J:QXYTF-KBW@L;F+4!]CB)E!B MD1%,H]>IXQC=CGK6)!<:MO#Z274FF7NIJ+J:&:7!CBB=@ W("DX'.??!K
MU./3["&5[R"V@2:3EIDC4,^?5@,GM5=;+1+HS1K:64Y24F51&C[9, .:/;7XB:A#;:SNMQ,T=JLMQ<-S+)*JJ4 QF./=@G(.
<#CK6O=>+M:/A/3 M]2C-A8W#ZLEE<.-.=\7E^859N&^3(X)XYKMTVSD7);:PNO(VM&I&&^,8[\ M9]
<4XZ7IYM!9_98/LO\ SP\ M?+ZY^ [C'6@#RU?VN:7I(KN):SBTVQ66VAGN)6DF8"1(F084*6V,0Y^ M3C]:
[TZ?:LFQK>)D^8;3&I'/7MW[^M)IUC;H([:U@A0 KMCC51@]1@#O0! MY]#XX\0>0MSAZ8%6M%<7U>VD=Q8K<) M?
V_VB--.#2R6P\T)B4\\$>3VP1CBNY^Q6JC;JGC(P%QL'0?='T';TI(M.LX) MI)K>VBADE.Z1HXU4N?4D#G\:
+Z=%,8[4+5)VJEJ\$WDV\$S^BTTKLF3M%L\Y MU^Z_4I6SD9Q7/2=?
6NB&BZIJ\$C2QV_EHQR'E.T'Z=Z;)X/U=A\K6Q/_77' M\Z|)26QQ48-
*YRTC;8G;T4FN5)R>CW7@[7A;R+'#!*Q4@!9A7,R>"/%8W=W]A7 M;Z :R6NHO'0=5,GE_W/X4'^>];TFV]6?+Y
MAH^7:Q)X;TTW^IB50;B0G;Y|<^H3T45W][.EO: ^6DV448Q N\$^_+O6/X3 MM1Q&T(=D0XB4X7/H3V4=_6G: =L&
(60R[Z !!_N^U<6,JVE;HCW^'\-&7O] MS"OKQBYP9L9[+NK%RDURL8:9\J1YM1WES>R9S:H1Z&X93^@Q6;)?,
MA\$4D++(W"1W3@HY_V9!T/UKYVI6NS]7H44XZ&H]Y[LI8B,\8EA]\=Q44L MC9?
QJU7[19PI]16].J|T>QASJD73GT.NM M]76[Y *NV&(<5J85 M%&M%'H]G?5.U^OZU4U+0="U@%
[BS6*7_GK#|I\$_=#7)VVK;2!FMRVU/\ M5=M'%26S/EL;E\$9I\T;G.0^?I)N+RS; \$H\|_S
MN8YZ45/[UN9\ C_8M/^4)OKF_%CZH/#=P-`CF:Z9HU!@;#HI<;V&.3A);2>.H;NQF9=7D\$;H^JI(H*N1.,B =UV;N%[8[UT
MW_>:'&&DD%]')98!=26KB%Y(JVY0^,\$_(P'J15NU\7:_% '\$%?%Q,K36^KL+G>BP\$^4(D::0;BX)7[A0D., MX
P.6#W3E5DWE""7V[JGO@9'606_M,"R> M69D\ S&=I8;L=^.M4Y|4L+>^M+.XF"SW8?
RAVPB[FR>@XYYH0'.7%OKEWI_AJ MUCN-5MXWE?\ M"1I\$6X\$8B?;O9> =VS[O?& N:DA?PZ?8 3:C)K:VDOV<
M[I\$DWL)0@3!4[=N00;I7J O+8^61<0XE.(\$D'S^P?P)I>,!@^6;"9QNZCJ,XKTI=4T] MM0BLUOK.H;V>
MUL[C4_L\$4UP)TS+*;V\OBAM?:22W\0#3Y68>6S;9+>'RN#D\$JY+IPX+<]Z3QWIIJW, M6-A&);EKRTD
,2!56=&9BIP&) (IJZCS8U0Y=%&"22PP .II!/(Y(G,Z>3 MC(DW#;CUSTH*)/W2?%VFZKJJV<,S?:9D87NFQ&!) L!"+Y:\$G(-
M0M8'NK35Y=6AF2>)55#;(GV-AG'3?YK\$'OD^E>Q?;?,8%Q&3*,Q MCS!X)O6HFO8 45&XF018BP^TGINQT%
%"Z"/\$W_ "26OV[^T?+WW/VT7 'V M;R\CR/+[9Z=/]K:LS1_#OB2UU"YCAO-2L(6>_O%)F4J(YNL)+8W]W=2P2Q
MW#*IC\$0B8.;H#Y@&1U_ "O6OM5N0G|^(&+\$^\$ Q,KB!\X=B6P9-GW0! MG&." :DL8_&MU9F'5;C6;/56BC\$4T91;:-?
(^9I,9\\$.IOTQQ7IYFA";O.3' MJ6%,\VSN5\$+2Q2>(M0;3[2)HUW-(^W
M/IQ6YVKAQ&U)Y=S:V17=A3)@> _%63U\$3+;6^25G\XC-207^I74HC64N?R MKGQ=29)P,5:L=0EAN#
(@4,%XS6BG%Z(FS.I\$6K+CY0?H:7S-63_EDWYUD)KN MI%>8O/M4R:]?IC\R\$ 9SBM+,#2^WZFH
.E+_:EXI^:W8^N5K'B*";V1, M9QBI5\176[:UO&3C/TJ; V7?[:D ^:
Y_P!VD&L#J6=:JCQ\$S!R0:I9>3/DB.1),L>B[@&_OUS"0ZMM,EY9>4&N%9G:-% M(B>9;?LPHX7@@GW^:NF75=-
NR;.2S*B?]T1Z@_2N6NK58WEMQ8W;HK!FF! MW!1P3SS[^V .:T@I:H[\%12]ZUS81=3CO[ZYTNUWZ/'\$A\|J)E*9(4
;BV[MG.<=1BJ][KOV)DT25[=G58HT1D91A^5..,X7);IFI+74;ZU@EAAT?:RSS\ S M X*@#\$@^&3Z@C'.14-
W=74R.LFFF8&6R?-X.!GGGMGGUXQT-85%OS)/YG3AY M.\$5ROE]#&_L&&2R%Q>:9;-LUO)-YB32Y5U. #G 7/XY-
Z2QM^PIN8'X9^MX/T/|&].WH;V\OM5O=-NM&O!"TMC\ M].&1CMR-XSAB>VS_.C(J^:6=3)UE
M.:^QEO;:9K=NA/^T[H\U>DMV5P MKS?O)4,9*CK'RK?7%=-5,|>G>8?@&X_6K<@;S[8]_M\$9/_-'YKEC%*VWM-M&
.L,KQLBN1&NU&E23_@,HPP_.JNH6[?+4CDQ[6/^Z<5,2/|V=O_#PCY^DG M%.UP#/
D39!=\GVSTK:&AT8.:=JRMU,..X#2A5^XG_|>GQR?+55HVV\I4L?
MW<4WJSZ/EBD6(Y3N_&M:UN,R")6P>N3V%95M,22G@81>6|9>M:NJ0R6 MFFYDSQ)
(05Q_A7J8+^#*DE;8^3SK,QT]MK%M?37A>WMY,AK_.L|AX MX4+OL2=&8@#DX)X]ZZL/Q!KEIX=TT:E?K,T1FB@
@B,C;G<*!SC)KQ23A M,CX;WDFF!+?5&.:^N[AEEGD:W\N,S<8C/8>80(!!QUJW=>&X]L/^EZ?

M;W\$LJZE:R3LKR2H!\$AW.2Q.Q?RSD5L67CW2,BZOK>X9|26UGFB>-R)!&H8D M',|J.<|..M+.^-M#O-8M-)M3=RW-TKD8M7 C*,QS5!8Y>^~:MK MVN^(E2&"PBE0C)">N&|YD-F(JJC^*%FYY|^C-%YV_&H//<7C6/SJJ"!9I, M?+ L?WP
1EEST/,.>|..M+.^-+OIK.^U(0RQ,\$=C&Y1*EPA8#&J."<9SBE MNO%VA6^LM)\G3Y(?.-69|X(L@+/D M 9.^.!SSGFJC#?
5([F_%G).K&{7!MY)7+8CDP!\$4V] HVY)8# (%=-\0/# ML4)M,K)
J4U35+W4=6_L\FXAG2.'YH1\$SP11*G0ZFGO>-56UDS&RJ'<\$94%6!!H YB \Z] M>11VJWEI!;?:#&XD8/<>9?|
(7)HYB@,SWWV MSRS<-M7JX'P&VX/XZ,-OMBO0@.!2XH|G7P#KWE>7-)ISR3^1BX-V08B.9I, M1X4 E@P!(VY.3BF2?
#/4%MM.AL,RUL?(LHH)GA# O*OF9DXZ P"")YZUZW1 M3N!P-GX50%,.MVJ6XCM&=5D*IMW.PP>>V!D#J37-
7W@06-/B&I M7.VTUO,RJPLHHC*77S86(DV-(P/EMDA.!C@XKV.F&&))"D!XJHO@>^U33-M-
0U".TM,&>Z.06B,C*,P*FWH.=0/Y/?#_P 0.A,FQGN-.\$/F74K.I?A MG=&V|,<*-K#J>,58U#X>S/XFN+RQAMX[".2&5(O-
(6Y3,X*N2&)SA64H44 <-X+|ZEX=6YCN_LJ0/#%"=|@H|+/M4L#D8!!(|DUW-%% #.X+Q M1% M=W*X2)W8X" C->4
(,ZWB*|N)Q!%*^+|QX&3E<^F> M.F<.#L9R>JB5UCMR@.W)QW,@T%8UF7RU"Y#-#GZ50%Q9,?,&^VVY0_Q!ZR-6
M|4Z3I=J)>10)C VGI/2HRC-L=O,ZD\$A2>^*X"C'0XS7D?| PLM03B0X MH?|
A9B-|#7J70K/KF|Y@AY&, K1YIV|CZX:0)/^%FI_P|#1_PLY?>AHN M@/6_,P2.ZC(H|W,T A&17DW_LJ,_?
H_P%"H)Q|J@/8,\$C^TK7-KJG|ZRMJ|KJ56?.CXW#|H?(&:Y+P7XSD|1>*K>WAW&WMOJ(N9!J|V.->>3VR<>N.
M|J.3Q9J\$-H|N3\$B&3.XO@F)XXZ\$&LY.5UR'F80D<>63-01|VW L|WNE F8Q MGYL%".5,^=8JW?Q.|IS-
CD|J>G?YY(^M,^GWUY/I"SO,JRF0@"RD"-QJWIP M>XJ.H+JFJS.H+,
I6(D56D8-948X'48OUKQ<3SW.9|>"I_N4TM\$CG)FA@?U M,?=W P*S,04+.&H,>3S)W!^,&
|W,Z"NK|0Z5K>J|8\$U&RFM0!*>H8LWP_FDMH?*U"VGF?|E@R5C?ODMJX@>AP*|ODE=Z'OX*=&,5*,LV MJ+W
M#,;J.RM8XY6E.X|IG)7S8K?GH=@W.?SI-1G9I+2)>24,F/JYLBNE_X0W4.2 MU>X^U6T200EBR,226/|Q^GX8KFH_+J-
JUR,0J<0(>^GX50A/|J+E2W.^ M&P|8RK9DFA9">1D<4L5N(1YUV^Q1SLWF^@J75),OXMD-
MPYCE,:#G.#65,O'>7,PFZR*&P3^|Q7T/*7.&%B>+(NDXTE|Q%JFOM,H
MM81HA"|"G@_7UK%L+A'F=7,#26GRK16.AGS/L?6U8FOZ,-=THK%KB2V>1RJ+@LCHX=3@+D#
M@UM916,HQ)QID_P#UJ2S^|66 MZG^J%GK%W;S^~9)?(CCC612(P4P|H/E+TYZ^M=|N<9YI.8'GWB#P)JE+
MBW09%M+K4(H^M6*A6 B,3,K8R^5V\9QD9J-OAS,W#N|QK%Y.0BLTD<97.L M1B
V8VYVG.3R#R.M>BJZ,TA'##X=Z4NA'1_M5VUOYRS?>4-D6XM|9Q_>Y^M0 MKV^5^T)>-X@U+I=D;
|E2BN5V&J,#"Y4J1R,<5WV?RI:GG4/PUL|659K75K-MR"XC\$2Q31H&K((JX!"/S,1(P+'G.#6CX)>|\$VOAO4/M%G*
|H(VG1/CC|4,^Y M<#6W" W&X)^R*98_#?3 M,"XADAN91!|L|2+&I4B7S<X&YAGCDI/|F|N|R,9I, >UWPW;Z||+7\$UQ"
M88IXE,#[#B5-C'J|TKG|3X>V|G=+>OZ0>6|V)A*TEND<0(L1E0H&|E5'(Y MSF00<|XH|T %%)N!&1THW"!@!.*3/.*6@
HHHH **** "BBB@ HH|TAH RM>N MA.Z1,_=AM%>6M*0)\$94DCD&V2.10R./0J>#7,>|W'E6@_WFKAGKK@K0..,0
M/0Q+|POX60DV2..,3A %|HPV/A X|ROZ5RUYX3|B>5/|U.55.,G4>O_CE M=M>W M|5Y,-C"YKDY&#)
<|FDXIFBDSR+QE8Q^O%NHZ1.:|06|J8C(T5,= M%RHKG4-39LY|1?".K7^MZ997\$P2*|NHX'91RJLP!
(|5|C\$G|H|Q_G6|8+6YS M5)-6L,M_@?| #F2R2Y?19U28_JV M*JPV|8/+7|H7%>(RWW9%-N-| ^E,-UN6VDD5BI&.1V19(>
|OPS(-M)?&"C?=?W'06DHVERFSX8NTFT22W20JP?YH)QQTZ9|^=5|J|N-/MU(W-LL@<
J1G!/_SVIWAJ,V|EJ!)=*%:.,JS+G.#JT_GP:HZE?/.,LZ|*S\$
M8^AKPL6|,GVF4T|TU%"HCD|3WD+841+SIW|-Q_KUJ^M(WC#50C/"90HV"#, / M+49Z|9Y'M61,TQSB-
-PN0!67*7.3<7M+<+UDD8S,/H.F|GFDW9'U,+M9C2,H+8JC"0W3PXW,|!@,%SR<>E.3Q7KF)-U096S|C(%8%-(7&&9
MSGDD<8KE+N:X*VJ21+T-W<@M*Q/_/*Q||41HJJ\$FC)D)+),VYY&_OS^2 MU|&P\$ZEDWJ?
8^4,GRQ32ZG>Z|08,72Q9&&(S3QE<<@I>|Q60|RKS. M|UU,R0|<8V@>|!|N1NHKR|N|JZD.260Y8FD7*
(NQ67';/ZUJA@!%&A'1:G MQ&*S2=6+A%V1V" W,6YLU7D?K,<|UBS7\$Z2JY8|XSV|,J6,>%KJPAN=LHX
MW8J/6KAY%9N7-&Q=GR5^*QW'AF&W_-+FW84^ M<>/^ K14/AFZW,,6B.?.?/
&5HK"YVZ'T/J4GB*/6M)72,>UETYI&%^|SD M&FWY2@'4Y|POBE<7EK|.0ELJ<|B2|X ,S,@"J95W*6C!..,J7 ^4/;N
M^IC1JX,(D'L>AKQ3UTK,^,-%|=YI>IZ?#8>((HM#.K36MQ/?3RZM#.^XC=-(M|:XPKD9+#!R=^>H&*O6/QJ|676EW5|
<6>BV 6|M,(S%6/G3+&R3*K\$DJ&S M|O?@#FOH|R8E4+M4*.0H4 #Z5FZEH>EZND\$=.K*MOE^\$>
MK7UJHMU#>,T,Z*4|J.W,EPJR8E\$>WR9WPTL|CEF&/3Y+,22VUJ|2!-R1R/((B\$LRJH&P M9.>HZUZ?%# |F:-8|MP9\$
RWXCK4GV.^5|M-1.2NT8S2T>2?|=>*K|P_M)JD,=I,(-E6|<2P.{K}):,^YF|06_C,56U?1Y#X@M% M D(U&J%
M|J1SL896V!=V=R@KR2<=L5|#MB\$BQ|E4GE1QDXJ*7|)Y8C"J%IS@**/
M|B%W@X|NH|94U"SL+9HH+B2Y,W#%.!P0HZ|R5Z+UVMCC-6(B|K50|B6>E MQW\$Q6XO,-=br/><2\$26|32B0|G,(&=30%6F,C9ZTT#Q|(.:"2SFV,P9 Q!,,.03V,..N*X.W.H?!(%H M>D.?>
>ZU,_&K&>ZN+J"26>9\$A9@G4Y4%\$|IQU&|JQ2&*|OLJ@ZX4|JQH/NX MZ8Z=J/\$|
(1_PN>*KR|O+JW@N|K8Q65SJ,L\$T40D?D<^5CY@|YZFFZA
MDX>^*|>|U4/#4,0S 4=30!YQI>O2.7X;6WNEJEQ+IB+-S|
M7|WMHS^7G".0&3YEYQD8ZU9F|6>*M/OKA+B*TOHI>^2S|N"!T>?,^<&|W M&#|O?/M7HL=0%/%MC557^Z%
'Y"A/|F4,KJRYZJ002*/*+^XB>(IM-B.1K" M,>X|HW4^P3=&|LC?OJD,0-68\$|C,G%,C^)60/,-0(L|TEF)8,6#(Q?|H
MYIW?,7D^-\$KC'.37K/V.W*LOEIL8(BNP8)|<+.%7|P*H?&-VT9QZ9H|IC M|9:UJ_BQM'T&|3C,|H|AD:17" P12,J-
,|PO\$|)B|P H%..:WB#R,(XP3N9S@9 M|J33_LF?>*+3(JXM|X>XCFVB,D\$)BNE@+G+8((80@D 8ZXYJ5?^7BC M|-
=W 73FCL8#<2%5.3|2!<^&*L57Y1S@M@UZYH,+,|J,\$8Q@=-1,>..0JJJ MJ. H%
'CT|C|7K/2D^UZ0975Q"JTUUFWVR1*DA")M+@,-=HR=I?>^7G->O M6|@DMDCG.=K*&&E'V>%FRT.GYMW*|C|WKJ?
>JFL7|W|1|F8-CC|K:\$K-MNP|F|YY|KEX,S5YFW97!.6,^*FD,M4,NX6" H#| /4UV030X(JV86KW M/F7/DJ?
DC_4UE=ZFF+,Y8J2WVD,I,<|MNA&36EIVB^98S)<:FH|QAECK" P16SHTP60PL?ON U"QFU|,NQA=8Y9XRBL MV<
>|E,VC>\$?%FF..NGVFL0K"Y|YBLS(P.|H^4|@D^V*)NT3.%YSUZ|J#2 M|1|3PK@_S?>
Z3FJ50X5+71K=^9KY65D9H=EU*0TK,-Q8\$<* "HQW..YK6/#'MBZU^:XUA)W9C)(?M, @.3*@,0=OR,0>.M+#NTK&>
CI&78=-D"U8'N|X+DO(M=C,|,77MW|T|H|J-U#|S1J&H|F|L>#EB0|W\$A@#T&W KG=2+^85Z>7T^OK71
MBJD>4|UMT|))#G((7Z^>/BZ|M|J,4?957|M4Z+J57.P3 I" +YES: #/|J-P|_85E'5J.5V6,|79|VRTM_N_|FKG+QY,
M|J9|R9|DD|M6,JLDMXFB^SD+GE1%_71|A|JA"SEN>3F&=RJN4*7PHZMM<20LNG
M|Y+XYDD.Z0_B>GX5RJJ&UYK3Q|6_=1@O|C)8FLV|4IEN|QKM(.2?|HJ|,I& M999),^<<@D"09H87V4G)(^5Q,,C6BJ?
WE>2S57(\$,8'4LM2KIL,T!>|A@.X MSFHI-.5|W8*|J0|F<8'X4RTUUH|<UBNE7YC@#BMN>J,,VW+,>CU//,.P/J,1?>
+I8R6B(?P,;5<1J|MD*F3N3D9KJM+U2Q0+8K)"1*G8/U%1**6J-*23TDC7|V-PNFS#RC_KCV_V5
MHK7T2:T:RD/E/_K3%|I|BN,F.GE/-:YQ9+JD?ANY,28|AKHM&H-OJ|H%+@,P M&|3AE>4>P>8::OC^|6|>2^U&V
M>UM9WLU>-56XE\$S^6W#)RFT=>>22ZEAOA|JUFMU"RE,CR-MSN
+XW#>CC&T|H2#7:Q|0I4LT44>I6KS2Q^9&@F4LZ_W@,|CKS4<.K.7<+NM M=2MKCJ/W4RMT&3WJ 30!Y-
JG|7)JMY>.6NM*D|4>ZZNK0-N6\$ X!,|Q8<< M|G&<^I?
I+73:F=A,5X|J.U\$UK#L#K*WVDJ|D+*&*\$90?..!P#WQ7|ZSHJR ME9KR"=)Y<9DF0"4X!^7GG|P_P
XJ2WNM+O+R.6TN+.XN(AY4KQ.K,F"3M)M(YSQ0!Y99P^+&|#3;&4K",3HG%"D|MYY,?&W:JL#|QSP"8FL>/3LQ>
MQ7%Y",YGM|VTD(N|0D|>Y5G\$K#/RGC)%>LVNHz,?QS/97MOQ(%4K,5/#MK!!9AIT4!,RHDBF15S=|Z|K|T
<7H|B&Z|=Z1>.M%|J M,36SWJW!DB"VL2L%\$7EGW4=B>.WFGCLY|52|>6=+G,*^5"GVA!\$T! M(P3Y>?7C)/(KNKSQ-
I-EJL.E^>)|R7'7K3|CQ)HT\$L,* MWT4|DERMIM@<2&.1LXW8/RCY3U|H#G)/|\$JMX3UZ%?

>_?"PO=27&)-MBT(8?|+P/T%<-X,VZJ:64?Q20F+WEYEHOG7)7^\$L,G/^Z@S^-
>R;,"VNI>\$UTU856W\$/V"HNKSQJ1/M.MF|AL?,A^O3ZXJAX%U*#QEX,O/#>N+YT|LAM9T?J|9X4_48QGU%7?JS-I^
MH:AX=O#EH+1Y^N&QJ>#^=O MSQ4GOL_4PKKV4XSMHJ)+UT3^1D?#^N AK|4WX?ZK,SZ=?2!K.5N!O(^10^
M!#Y3_M-5J JO%>.?'+PZUYX9MO%5C|EJ#AF=>"8B1W|FP?SKT+P3XAC|4>"M|,UA3||0\$HJ)X8?F#7,+74Z,
(W3J2I/9.Q|T^1U%%%9GK)?SK-DE'BS_M-L%7/_HMJ/_?X6>?J|_&GQ+T3PSJLL+5G>LRR,-L%<(3P2".WI7Z\$?K_D
ME'BS_L%7/_HMJ/_3X9^*K/P3|0M%47UO@IUK_PR M3+O^@GKWW@3'_+&Z0_LC #9E(-M37N?
^GF/_XW5# AK|P7_P!"QK7_)"M^*I5_:_^%LZK_P (QK7SS# EEW_X%0+4|T72,?0J L#LY)'M|&+>I#EB MJC
R1CGBM>HHY!\$LB|E##/O4M C-U|_D6M4_ZJ)?|T U^9@|0?|A*?
M>D>& .EM2F^SK) =8J=OX9Q7Z,ZJ_R+6J?J>DO-*..X1C|QH|\$<^T MXOYT%(I^%/\$6K?#GXCV6M+&|5H-T8|F
%E!*RQGZC(KJ*M'U6QUS1/6- MF\$UG>PK/#(XE89%?%7|47@10#WQ&3Q59PXT|7QND("7*C#C_@OPWUS7H7|
M*/Q^V.1>#W4!SV,JPWEH2?G0?|K/T,VH!F%_V) P C#X2_ZJKC_P!"M600/V2 ^2-W/ 84F DM>? MB?
|C#X2_ZJKC _"600/V2 +DC=S_P|A2,^2 MT|T/H*FM|T 264UONGZ4\$GY<36L=J|0|9BPBN=5|ER04*TVTX|&OL,_ADG
MX,?J!+70_F/ P"-U@0 P#)48?^PVG_ *4"OU!%|3/FW4_V1/8|HP2V-VL\$8M|50%3&&YRIVR.|J|L3_D^\$?
^OFX_P#05JQ^Q_/# M%X,|4B69(R=23 9@/^6*T#=#9&R\$!E)&?O*3,,#,JP87#K&9^F%)"&<)G'N*!
(16_97URXU3X,|JU*TIT MF|DMHROS|MC(#JOT&XU|J7SO^R,|LUT|)+R_D0JE J,COY&-RJHD>V0.^AZ
M85X5^TYXJ_X1_P#*=QID,FVZUR9,|0#SY?WI#^*0Q_P%">ZU+ M5>*OJ.^*MD'A^&7=Z%,&
/^G2?,WXI=@H!G7@WX?7WB|P?XR|06V_9X>LUN%51D2N6_MRR_A&K^|J|%.95|5?V|4Y #|TNVVUVV*J">./C^9?Q*
|Q704!.?@^1_@=, M>P#S?&^|G4|3&XVH|L_/*OCK4K>+A?%>*U3?>FY%?* M_@4P/QH&?K16?
1616^L_9.M9MOMKR%)XSZJRC|C^=.%!)PFEI_<C4,Q_N MVV47_P!! H:YGXG2_J7B3PJX=43R|W8|F"C/X9KJO|/P.C-
U+R+S^9_K7_M^ZM_I7Q^T&Z|PC&?97.O(REF=Z<8_S-+Y7.D|>7RZ+V,Y M8?D8PB!.V|Y?Y9J/X...NF^
;%F&UYPUP^?H|?H|69|8FQX+A4=&N4S^ - M=(LH|ALK1>1HF8JH|LJ|&U.G%?SA_<Y8_QI?VBE,YGE^P?
A_X2_XE^,O& M5P^X9V@A)YVAV/X*JB050#K?9KRJ|C|JUL@?0X_PKS0|G6)?^\$^U2ZP+U|
M=Q1G#^ &00K/JWXQN%7@%6S^AKYS,OW=:\$H|,Y-M8|7IR3ZI0Y|W,77U_E_M\$G3-07*I=@*^.
"1^HJ#XO:6M|X. ^W+K,&19%8=0&^4_S!"K6Q#^631, M@?>25L?^G^E:WCB-90AWK.X9_T-V_#\$|JL.N6I*2Z?
WHXL3!2A*/E?|J- M9%&GPT@6X^9,ZR,,N?4J5,J,|^E!-!^O^&|ECYFGW>0">FOQ2!#V_Q"^-&I^'9!=,GFVH?LE_|
M)&KG_L^3?R6OCK4_<JYJW@|0#MWETT1|@6A/2*4JVS!"K?@-.?Q?V2 ^2-7 M/ 84F DM WL?0-,H^E.HK?
=|TH|/R_A_Y^C#_V&T_>^7Z@BORVN+I+Q_M?22*6CMM5_P^04A9M|Q_J^*^N/^&O/_\$+>M_+?7_504S21?G5^T=>
M+=?^OQ2R<^5)\$?JL_U|EJW|7V@K90|VX5U^.|^_NS=R)&#|H|22-^8+:# M7/B|0TAPUUJ^NWNYRB_Q.V6;95&3I4
C|\$?A=:M.?#PC,N,,NE6Y(|"8 MP?ZUV55+&SCL,M,&+5VT20K|_E5N@D^50VQ|^0+X1_Z^,C_!60G;P
M,!.?#GBRNN|SP?P^O^PDG_*)6@KH>R?_XV)&6;PO=D=P-0A8_D)*XJ|T@C|&^+7M M?&G@^2^DMG'GZ=-S/,"UY^|G<
U^H.^_VOK^VB|9^&K^.)5N+BRDCD<#! M8^XV|<_C0^Y|+ #7Q%X<|4?#02=6^*V2V&EF+RTLU4+JF*-
'@<<^M=M7 MS+LFLQ^#%PI.0NISX|PM?0% C/U+4;=2>0-40^V6UT"!K>BJH8G|A7Y MC:CJ9|7>.
|G5M7NA,|JU^9;B=B2(4=^3Z_*03Z5JK_M,>*O^\$?|@U<:9#)L MNM_M@_A04CZWL/C?&=
TVUTZT:6<=O:Q+#&HAE "J/N>@KY_:_*UGP7XG^(-MEKXD|ZU#|J.WMH(|P1(R|).%)W=5(_:_>_X8|/_
/0Z.C_X^I_C7_+\$M#JE^S|) ^-7|Z/XDO-1NM.B|_JAT!^,D'L,C|*/5?V8%7|O|P?BT MF.3=-.%|UHP/7RS|T9_(D?
:JUKX2_99|6#0_BO)H4|FVUUZW,0!/_G|R-M?B1N|XU|VT"9Q'A%C#>ZK-|JY|!^A(-1E+Y|9^,%NT0@02**3%
<1MQV|R/ZUO:7MU3X=6PC,=Y^MGB/ZG9M_G4>K0Q^*OAS<+;?|J|MM?,BV_WL@/S*&Q/A+J|WW@Y|<_O,"0QD-M?
|H^9?ZC|^CWT^<7^9QIKVU^DXZ>J_5_9UN_!PCV0.:V|JM|AL=|%)F6Z09/020_P#7/Z^|=/_G^*;H=|&GKR>V5Z_&L
MOXP|DS6_G^*!YKBJG#;1=7@?FQ'Y5KAO>E.IW=ON5CAQ,^6\$Y=J%>1T'PO_MMVM_AU|K-QY@DD_NL7D/@GX92
M3;@|HUF(XP?XGV|5'XL17?_>1Y+P/H/E/_DV^O:|J&BWC.MM?6|VAC.&^LI4X/KS7B(M-9)&^P'V-6N^GE?
_B|JXO|J*QT^XOILF.WC.5JHR<*,G'Y5F^?%\$CXFT9_M-6T|9EMW9D|F7:V0<|C)H|9-P"^-2 AO_P_&M?^!"_!-(
V20AL01|JOUK M_P "5_+B_@|ZYNW|5,;<>+KCP0&D_VZWC|Q|5'EXP#P<^10,O>^1M?#GA_M03|!L6=|PA6"!#|EBJC
R?6M>J.IZA|H6EW.HW|8PV|9D<,(M@>@KAE^,7A_M9E#+9ZJP/<6H(-0J|^750>64|G*2\$CC-L=<\$8/Z|6V?LS^?
#7B33 M=?T^JU9K03YUN(A+_J4L.F1M25ZCX|4.?XHLYK3X,F-(7|MA<|H#G>|DU MF^^(OB|H?
AG5ETS4(R2X,_2#R(0XP?Q|0!V=-E.0RGL?|_UC6_P 6/#=W>06L_GJ@>9Q&I:UP 2<<|UZ%0!^P## M)?PW_P"?_60_
(7_P")KU#X? # _\$7X,>09KF6U>=K@MF?#)?PW_Y J,|^%"_>KO|XL>&6J|UM50-1^#26L_Y!^>N
M@!>+M#|46|2.7=%|_J9#(N|V1|J|A*/(HOV3|AFC@RW6LRK=-T%\$^2UZ) MX+^%?@7P\$C/X,T..VNC7|JW*3+,P|<@?
3%-!X|0V_A61FU,4EF.W5U0B% M=S9/3C(K0L|F,L,>|AR(YXUE7<,_#(S^=%RBN#U,XF>|\$UNYT>ZM|H|F MV(#^3
&7D<^J|TGXF:#K>LVVE6EKJ*3W%#5.6WVJ_GDYXZ4_0_,\$,X5^?MBA.Z=,^O|R|->Y(OLL@0DL#G/(I3OAS|,?
#_POTR_T_P-/RQ7TXGD-U(M^8%*XP!Q@5V5U<1V=E/>39*01M(VT9_,6'Y5A>%_&6B^+|OY-*>4.^0'BF
M7_XZ^&300!U%>:_\$X,>%_B=>Z?=_^(+B^BDL(WCC^RRA_0Q!<@^E=KGB0
M3=|U3,&^CG.74)/+A,2!@#D#GGCK724<,_V_A_HOPW|H.|@S7,MJ|7!. MY<,VYL9Y
"%"=E7#ZY|20#>BWK,>9)KV|0X>*TCWI#Z\$|J*G_>^#OB.I_G_MW\$|MO>?|/O" M0P6R|W\$.Y;&<<#|:XP?
&+PNP#+9ZJ0>XM01_Z%0!Z/5,M,>L+BQNHQ+,W\$ M,12(>C*PP1^1K+.)>
(|Q|AC|A|5Q\$#&1<|H|R,=LGC|J_B3QGH?A=(UU M^*9VN)1^|MX5WR,78?6@#S#10V8?>@Z|8.YIN|S'=V%PEQ?"
M^X#*^@?= MZ=O17N|#742(LD91E#*1@|Q7#(T MGA/Q_0VW|IMQR#UPA1_*O|J2>S|LOAE92|GT83HQJ|T^20"?
H:R58^?BTXDRFDZ|A*|F_JE,|#6CX|T6XLM1M M?&^@G\$L15KCR^OP|/C|JL_>
I/CSX?"|5EB08C^|5CEHINZ^V|(^F#7T\$ M<13LY7LFM7T|J3YR5*IRJGJ|#NO=CCOCSIGD7>D>+-
XOK\$A9RHZ+NS&Q_(_M_&00)+8.9),/(\$%DRD2PX2,|GD3=&4_1L_@^Y|P3J6GZM_WVA^*FWW,_NT1_M6YX\$D6,-
R>X'Z/O\$SW|0>?"#,|BZVQRF M+D*G9_1H|7DW@CQD|X6*0Z1=>&7G ME21W+QVY^8Y|BF|C7E6D_>G"ZS_P!>H_>
05KN_#^MCQ!HR|DMC<609F7R MKA=KC?%<115MM7N&MHE@:U|S|C(06.00|*.R|.?|B+K7_7J_>*O+_M 9X_L|#>
(66FS>=00'B#9FAB#(V6)X>G^,>3P3K,|<,[M:N|JC|)QV%9 M7PQAF@^>F13PO#<
^4D4JP^<|C04H>%O\$\$|B339,Z'3,C3U20Q|+A K-@ Y MX|@#9L?B5H|YJ-M.+X7U2)H%G#O H"Y.,FO2.1YM?B=^=>
M7L%_M_P(KK?G2+O>A5R<9/M7HU(KR|QK>O.3|0K,QGI^D_VS,I"(VAV M|C&0".@Y|Y!.#7KE>?
^(-%GB+PYX@/G>9+|0VC7,/_99P_?|J|UH SJ,^ M(A'Q)JMH,ZU?
V+48Y083=Q@A7|8,M^60B|J5Q8^!|OL|NQ3|L#L|/IO)(M_&_KBN#TOQYJWAJRCT?Q7X=U%KNU7RUGMH|Z|J|ZJ.
M0>:Z#PKKWBQ|J-S>WFCKINB%0(%G!\$S'U^GKD?2D!|80|DG\$_7Q%_.NO M|A_(_KZ5_UZ1?|H
KDOBU!-.W@DGD|,|T+|KZ'NKT%67PU|L|5 MA,1@C!|V" #@R.X|00^?C/X@O|J.N+|J|C6|R|=S|8SG!|<5V>A?
\$&RUG6 MK,380#FHVC\$@32P@*N_3R|PKDKC6)_#^QAU|5I-%O|V"-8E^SPL-M2M=8UOP|JEC|YE0<7_93_>#7
M(N#Q7H7C4|)J%:MJ%OQ-#,L4/H3QG,UXJJGA/5/#OC_2-/MX|FYT?|E MQ:|I%UB!<@2.A"UX-
>YZHT&K.3=Z,)O\$ENNEZ&JGH4>?M_M|A5G_W?T/O2 WOB)_P|DWUO_*X?^S" N|_\$.RT?PCINFR^&|J1NGMXM
MIFBA!5^2<@UWQO_CDE^N|LQPOO+(T.%1+\$_.,@%<+X7|^?0?"FGZ//X6UB: M6UCV,Z6YVGDG|C(JZ8HWAG7H?
\$&D'4(-N+!!*T?E7!6R, #_FJ= MOK&E_8M3CE@-U&%DZ##=OQQ7J%>")>|_B1J&G.V.A>&,NVECE#2W|Q%Y91
M?3(|=^O4"09OL,?|J|VH LUG|EIMOJ=FUM.O!Z,JGU%,:/5S5:<L73J^Z8
MT|'GMO>7&@RR.7JD|FM6!L@9R#Z9!N.U<=:7>>|TZ|8V9,2'D^> L=H& M?N60CT-
>T|Z|VJW9JES" LJ|QPWUIC00R7,EG)&K6_E_ZLCY?RKQZ5.<:KAS7

**MBEHF8XBC&K'FC{LEU1X=XD@;QEKK7WAK39\$EAA!F(PIDP,_8'L/6LK6-0TOQ-M%X\$M/"[;&W]M)
<820+|RR9Y8=JS="O3|A7N^@:7I^G:08+*U6&-I&R!DD|GN M>;S5T?2XK.;Q!8Q+J;1|S@UL?/5,-R7+)+FWT/!_"
M^O7'PGUV-L/%6CRM>>1NM)58,?90>FUNY'3&*Z?P7X3UKXA>)T|>>.%/V(&-ML)A|K'*|H@_|'C76^--
T-50I',4K.*Z*ZH!!D7.-TWS#Z'N.AKU2&-M%@7:H%:5*JE'FBK-F^'P/)+EE*|4|V+6 !CH*6BBN,J|**** "BBB@ HHHH M
**** "BBB@ HHHH **** \$ Z#%+110 A/49I: ** "BBB@ HHHH **** ",BBB@ ZBBBB@ HHHH **** \$ 'Q2T44 ?_9 end "**