

PROSPECTUS SUPPLEMENT
(To prospectus dated July 9, 2024)



NUWELLIS, INC.

469,340 Shares of Common Stock

We are offering 469,340 shares of common stock, par value \$0.0001 per share (“Common Stock”), in this offering. Each share of Common Stock is being sold at a price of \$4.24.

In a concurrent private placement, we are also selling to the purchasers of our Common Stock in this offering, warrants to purchase an aggregate of 938,680 shares of Common Stock (the “Private Placement Warrants”). Each Private Placement Warrant will have an exercise price of \$3.99 per share of Common Stock and will be exercisable at any time after its original issuance for a term of five years. The Private Placement Warrants and Common Stock issuable upon exercise of the Private Placement Warrants are not being registered under the Securities Act of 1933, as amended (the “Securities Act”), are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption from registration provided in Section 4(a)(2) under the Securities Act and/or Rule 506(b) promulgated thereunder.

Our Common Stock is listed on the Nasdaq Capital Market (“Nasdaq”) under the symbol “NUWE.” On July 24, 2024, the last reported sale price of our Common Stock on Nasdaq was \$2.49.

The aggregate market value of our Common Stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$6,474,595.70, based on 651,794 shares of Common Stock held by non-affiliates and a price of \$9.9335 per share, the last reported sale price per share of our Common Stock on Nasdaq on May 28, 2024. During the 12-calendar month period that ends on, and includes, the date of this prospectus supplement, we have not sold any securities pursuant to General Instruction I.B.6 of Form S-3.

We have engaged Roth Capital Partners, LLC, or the placement agent, as our exclusive placement agent in connection with this offering. This offering is being conducted on a reasonable “best efforts” basis, and the placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities. We have agreed to pay the placement agent a cash fee equal to 7.0% of the aggregate gross proceeds raised in this offering as set forth in the table below. See “Plan of Distribution” beginning on page S-12 of this prospectus supplement for more information.

Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-4 of this prospectus supplement and page 8 of the accompanying prospectus, as well as the risks described in our Annual Report on Form 10-K for the year ended December 31, 2023, which is incorporated by reference herein, and the other reports we file with the Securities and Exchange Commission (the “SEC”), before investing in our securities.

	Per Share of Common Stock	Total
Offering Price	\$ 4.24	\$1,990,001.60
Placement Agent fees ⁽¹⁾	\$0.2968	\$ 139,300.11
Proceeds, before expenses, to us ⁽²⁾	\$3.9432	\$1,850,701.49

- (1) We have agreed to pay a fee to the placement agent equal to 7.0% of the aggregate gross proceeds raised in this offering and to reimburse the placement agent for its expenses of up to \$100,000 in connection with this offering.
- (2) The amount of the offering proceeds to us presented in this table does not include proceeds from the exercise of the Private Placement Warrants being sold in the concurrent private placement.

Neither the SEC nor any state securities commission has approved of anyone’s investment in these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Delivery of the shares of the Common Stock being offered pursuant to this prospectus supplement and the accompanying prospectus is expected to be made on or about July 25, 2024, subject to satisfaction of customary closing conditions.

Roth Capital Partners

The date of this prospectus supplement is July 24, 2024.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus dated July 9, 2024 is part of a “shelf” registration statement on Form S-3 we filed with the SEC, which became effective on July 9, 2024. Each time we conduct an offering to sell securities under the accompanying base prospectus we will provide a prospectus supplement that will contain specific information about the terms of that offering, including the price, the amount of securities being offered and the plan of distribution.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also may add to, update or change information contained in the accompanying base prospectus and the documents incorporated by reference herein. The second part, the accompanying base prospectus, provides more general information about us and our securities, some which, such as the section entitled “Plan of Distribution,” may not apply to this offering. This prospectus supplement and the accompanying base prospectus are an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. We are not making offers to sell or solicitations to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation.

Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying base prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date, the statement in the document having the later date modifies or supersedes the earlier statement.

This prospectus supplement and the accompanying base prospectus contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the full text of the actual documents, some of which have been filed or will be filed and incorporated by reference herein. See “Where You Can Find More Information” in this prospectus supplement. We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into this prospectus supplement or the accompanying base prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus supplement, together with the base prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying base prospectus include all material information relating to this offering. We have not, and the placement agent has not, authorized anyone to provide you with different or additional information and you must not rely on any unauthorized information or representations. The information contained in this prospectus supplement or the accompanying base prospectus, or any documents incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying base prospectus or of any sale of our securities. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying base prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. **You should also read and consider the information in the documents to which we have referred you in the sections entitled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference” in this prospectus supplement and in the accompanying base prospectus.**

For investors outside the United States: We have not, and the placement agent has not, taken any action that would permit this offering or possession or distribution of this prospectus supplement or the accompanying base prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons

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outside the United States who come into possession of this prospectus supplement or the accompanying base prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities covered hereby and the distribution of this prospectus supplement and the accompanying base prospectus outside the United States.

Unless otherwise stated, all references in this prospectus supplement and the accompanying prospectus to “we,” “us,” “our,” “Nuwellis,” the “Company” and similar designations refer to Nuwellis, Inc. and its subsidiaries on a consolidated basis.

This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference, include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying base prospectus are the property of their respective owners.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and accompanying base prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking uncertainties. In some cases, you can identify forward-looking statements by the use of words or phrases such as “anticipates,” “could,” “would,” “should,” “will,” “would,” “may,” “might,” “potential,” “contemplates,” “estimates,” “plans,” “seeks,” “projects,” “predicts,” “targets,” “objectives,” “continuing,” “ongoing,” “expects,” “management believes,” “we believe,” “we intend,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus, and in particular those factors included in the sections entitled “Risk Factors” in this prospectus and in our most recent Annual Report on Form 10-K, our most recent Quarterly Report on Form 10-Q, and other filings we make with the SEC from time to time, which are on file with the SEC and incorporated herein by reference.

Forward-looking statements are based on management’s current expectations, estimates, forecasts and projections about our business and the industry in which we operate, and management’s beliefs and assumptions are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. You should refer to the “Risk Factors” sections of our Annual Report on Form 10-K, our Quarterly Report on Form 10-Q and other filings we make with the SEC from time to time for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

You should carefully read this prospectus supplement, the accompanying base prospectus, together with the information incorporated herein or therein by reference as described under the section titled “Incorporation of Certain Information by Reference,” and with the understanding that our actual future results may materially differ from what we expect.

Except as required by law, forward-looking statements speak only as of the date of this prospectus supplement, and we assume no obligation to update or revise any forward-looking statements for any reason, even if new information becomes available in the future. You should, however, review the factors and risks and other information we describe in the reports we will file from time to time with the SEC after the date of this prospectus.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein and does not contain all of the information that you should consider in making your investment decision. You should carefully read this entire prospectus supplement and the accompanying base prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in this prospectus supplement and under similar headings in the other documents that are incorporated by reference into this prospectus supplement and the accompanying base prospectus. You should also carefully read the information incorporated by reference into this prospectus supplement and the accompanying base prospectus, including our financial statements and related notes, and the exhibits to the registration statement of which this prospectus is a part, before making your investment decision.

Company Overview

We are a medical technology company dedicated to transforming the lives of patients suffering from fluid overload through science, collaboration, and innovative technology. The company is focused on developing, manufacturing, and commercializing medical devices used in ultrafiltration therapy, including the Aquadex FlexFlow® and the Aquadex SmartFlow® systems (collectively the “Aquadex System”). The Aquadex SmartFlow® system is indicated for temporary (up to eight hours) or extended (longer than 8 hours in patients who require hospitalization) use in adult and pediatric patients weighing 20 kg or more whose fluid overload is unresponsive to medical management, including diuretics.

Please note that selected authors in the citations below are either current consultants to the Company or were previously compensated consultants. Each author typically is required to disclose any actual or potential conflicts of interests at the time they submitted their written manuscript to the potential publication. Dr. Sean Pinney for example, is the principle investigator under the Company’s current REVERSE heart failure clinical study. Additionally, Dr. Maria Rosa Costanzo, joined the Company’s Board of Directors (the “Board”) in September 2019, though many of her cited publications preceded her membership on the Board. Since joining the Company’s Board, Dr. Costanzo has declined any equity ownership in the Company, although she has accepted cash remuneration for her Board and Committee participation.

Corporate Information

Nuwellis, Inc. was incorporated in Delaware on August 22, 2002. We began operating our business in November 1999 through Sunshine Heart Company Pty Limited, which dissolved as a wholly owned Australian subsidiary of Nuwellis, Inc in 2020. Our Common Stock began trading on the Nasdaq on February 16, 2012.

Our principal executive offices are located at 12988 Valley View Road, Eden Prairie, Minnesota 55344, and our telephone number is (952) 345-4200. Our website address is www.nuwellis.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) will be made available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. These reports are also available on the SEC’s website, www.sec.gov. The information on, or that may be accessed through, our website is not incorporated by reference into and should not be considered a part of this prospectus supplement or the registration statement of which it forms a part.

Implications of Being a Smaller Reporting Company

We are a “smaller reporting company”, as defined in Rule 12b-2 of the Exchange Act, meaning that the market value of our shares held by non-affiliates is less than \$700 million and our annual revenue was less than \$100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our shares held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700 million. As a smaller reporting company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation. Additionally, as a smaller reporting company, we may continue to take advantage of the exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended. If investors consider our Common Stock less attractive as a result of our election to use the scaled-back disclosure permitted for smaller reporting companies, there may be a less active trading market for our Common Stock and our share price may be more volatile.

The Offering	
Issuer	Nuwellis, Inc.
Common Stock offered by us	469,340 shares of Common Stock.
Common Stock outstanding before this offering	651,911 shares of Common Stock.
Common Stock outstanding after this offering	1,121,251 shares of Common Stock.
Use of Proceeds	We currently intend to use the net proceeds from this offering for working capital and general corporate purposes. See “Use of Proceeds.”
Risk Factors	The securities offered hereby involve a high degree of risk. See “Risk Factors” beginning on page S-4 of this prospectus supplement and the risk factors incorporated by reference into this prospectus supplement and the accompanying base prospectus for a discussion of factors you should read and carefully consider before investing in our securities.
Exchange Listing	Our Common Stock is listed on Nasdaq under the symbol “NUWE.”
Concurrent Private Placement of Warrants	In a concurrent private placement, we are selling to the purchasers of our Common Stock in this offering the Private Placement Warrants to purchase 200% of the number of shares of Common Stock purchased by such investors in this offering, equal to up to 938,680 shares of Common Stock. We will receive proceeds from the concurrent private placement transaction of the Private Placement Warrants solely to the extent such warrants are exercised for cash. The Private Placement Warrants are immediately exercisable at an exercise price of \$3.99 per share and will expire five years from the date of issuance. The Private Placement Warrants and Common Stock issuable upon the exercise of the Private Placement Warrants are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption from registration provided in Section 4(a)(2) under the Securities Act and/or Regulation D promulgated thereunder. There is no established public trading market for the Private Placement Warrants, and we do not expect a market to develop. We do not intend to apply for listing of the Private Placement Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Private Placement Warrants will be limited. See “Concurrent Private Placement of Warrants.”
Participation Rights	Pursuant the securities purchase agreement entered into between the purchasers and the Company, the purchasers in this offering have been granted a right of participation for a period of 12 months following the closing of the offering in any issuance by the Company of its Common Stock or Common Stock equivalents for cash consideration, indebtedness or a

combination of units thereof, of up to an amount equal to 40% of the subsequent financing on the same terms, conditions and price provided for in the subsequent financing.

Except as otherwise indicated, all information in this prospectus is based on 651,911 shares of Common Stock outstanding as of July 24, 2024 and excludes the following:

- 3,979 shares of our Common Stock issuable upon the exercise of outstanding stock options, having a weighted average exercise price of \$ 517.83 per share;
- 1,641,256 shares of our Common Stock issuable upon the exercise of outstanding warrants (other than the Private Placement Warrants to be issued in the concurrent private placement) with a weighted-average exercise price of \$39.17 per share;
- 15,240 shares of our Common Stock issuable upon the conversion of the 127 outstanding shares of our Series F Convertible Redeemable Preferred Stock, par value \$0.0001 per share (the “Series F Convertible Preferred Stock”);
- 62 shares of our Common Stock issuable upon the conversion of the 88 outstanding shares of our Series J Convertible Redeemable Preferred Stock, par value \$0.0001 per share (the “Series J Convertible Preferred Stock”);
- 23,762 shares of our Common Stock issuable upon conversion of 88 Series J Convertible Preferred Stock issuable upon the exercise of 1,920 warrants issued in October 2023 in a best efforts registered public offering (the “October 2023 Offering”); and
- 42,076 shares of our Common Stock reserved for future issuance under our equity incentive plans.

As a result of this offering, (i) the exercise price of certain of our outstanding warrants to purchase 1,602,012 shares of Common Stock (the “April 2024 Warrants”), which is currently \$3.88, may be adjusted to the lower of (x) the public offering price per share of Common Stock in this offering and (y) the lowest VWAP on any trading day during the five trading day period immediately following the public announcement of this offering, and there will be a proportionate increase to the number of shares underlying such warrants and (ii) the conversion price of the Series F Convertible Preferred Stock will be adjusted to the public offering price per share of Common Stock in this offering and the number of shares of Common Stock issuable upon conversion thereof will be increased to 29,972.

To the extent that additional shares of Common Stock are issued upon the exercise of outstanding options or warrants, or the conversion of our outstanding Series F Convertible Preferred Stock, Series J Convertible Preferred Stock, or the vesting of restricted stock units or additional grants are made pursuant to our equity incentive plans, there will be dilution to new investors. All share and per share amounts for all periods presented in this prospectus and the registration statement of which it forms a part have been retroactively adjusted to reflect the reverse stock splits we previously effected, including the most recent reverse stock split effected on June 27, 2024.

Unless otherwise indicated, this prospectus assumes no exercise of the Private Placement Warrants to be issued in the concurrent private placement.

RISK FACTORS

You should carefully consider the risk factors set forth below, under the caption “Risk Factors” in the accompanying base prospectus and in the documents we incorporate by reference into this prospectus supplement and the accompanying base prospectus. See “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.” Before making any investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus supplement and the accompanying base prospectus. The risks and uncertainties we describe are not the only ones facing us. Additional risks and uncertainties that we are unaware of or that we believe are not material at the time could also materially adversely affect our business, financial condition or results of operations. In any case, the value of our common stock could decline, and you could lose all or part of your investment. See also the information contained under the heading “Special Note Regarding Forward-Looking Statements” below.

Risks Related to this Offering and our Common Stock

We have broad discretion in the use of the net proceeds we receive from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds we receive in this offering, including for any of the purposes described in the section entitled “Use of Proceeds,” and you will not have the opportunity as part of your investment decision to assess whether our management is using the net proceeds appropriately. Because of the number and variability of factors that will determine our use of our net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest our net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

An active trading market for our shares may not be sustained.

Although our shares of Common Stock are listed on Nasdaq, the market for our shares has demonstrated varying levels of trading activity. The current level of trading may not be sustained in the future. The lack of an active market for our shares may impair investors’ ability to sell their shares at the time they wish to sell them or at a price that they consider reasonable, may reduce the fair market value of their shares and may impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire additional intellectual property assets by using our shares as consideration.

This offering may cause the trading price of our Common Stock to decrease.

The number of shares of Common Stock underlying the securities we propose to issue and ultimately will issue if this offering is completed, may result in an immediate decrease in the market price of our Common Stock. This decrease may continue after the completion of this offering. We cannot predict the effect, if any, that the availability of shares for future sale represented by the Private Placement Warrants issued in connection with the concurrent private placement will have on the market price of our Common Stock from time to time.

Future sales of substantial amounts of our Common Stock could adversely affect the market price of our Common Stock.

We may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. If additional capital is raised through the sale of equity or convertible debt securities, or perceptions that those sales could occur, the issuance of these securities could result in dilution to investors purchasing our Common Stock in this offering or result in downward pressure on the price of our Common Stock, and our ability to raise capital in the future.

Nasdaq may delist our Common Stock from its exchange which could limit your ability to make transactions in our securities and subject us to additional trading restrictions.

On December 7, 2023, we received a notice from Nasdaq (the “Notice”) informing us that because the closing bid price for our Common Stock was below \$1.00 for 30 consecutive trading days, we were not in compliance with the minimum bid price requirement for continued listing on Nasdaq, as set forth in Nasdaq Marketplace Rule 5550(a)(2) (the “Minimum Bid Price Requirement”).

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In accordance with Nasdaq Marketplace Rule 5810(c)(3)(A), we were granted a period of 180 calendar days from December 7, 2023, or until June 4, 2024, to regain compliance with the Minimum Bid Price Requirement. If at any time before June 4, 2024, the closing bid price of our Common Stock closes at or above \$1.00 per share for a minimum of 10 consecutive trading days (which number days may be extended by Nasdaq), Nasdaq will provide written notification that we have achieved compliance with the Minimum Bid Price Requirement, and the matter would be resolved.

The Notice also disclosed that in the event we do not regain compliance with the Minimum Bid Price Requirement by June 4, 2024, we may be eligible for additional time. To qualify for additional time, we would be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for Nasdaq, with the exception of the Minimum Bid Price Requirement, and would need to provide written notice of our intention to cure the deficiency during the second compliance period, by effecting a reverse stock split, if necessary. Subsequently, on May 23, 2024, we received a letter from the Listing Qualifications Staff (the “Staff”) informing the Company that it was not in compliance with the minimum stockholders’ equity requirement for continued listing on Nasdaq, under Listing Rule 5550(b)(1) (the “Stockholder’s Equity Requirement”), because the Company’s stockholders’ equity of \$885,000, as reported in the Company’s Quarterly Report on Form 10-Q for the period ended March 31, 2024, was below the required minimum of \$2.5 million, and because, as of May 23, 2024, the Company did not meet the alternative compliance standards, relating to the market value of listed securities of \$35 million or net income from continuing operations of \$500,000 in the most recently completed fiscal year or in two of the last three most recently completed fiscal years. Because we did not meet the continued listing requirements, we were ineligible for an additional period of 180 days with respect to the Minimum Bid Price Requirement.

As a result, on June 5, 2024, we received a letter from Nasdaq indicating the Company’s continued non-compliance with Nasdaq Marketplace Rule 5550(a)(2) (the “Letter”). The Letter further informed the Company that the Common Stock would be delisted from Nasdaq unless the Company appeals the Staff’s delisting determination by requesting a hearing before the Nasdaq Hearings Panel (the “Panel”). The Company’s request for a hearing will stay any further delisting action by the Staff pending the ultimate outcome of the hearing. The Common Stock will remain listed and eligible for trading on Nasdaq at least pending the ultimate conclusion of the hearing process.

On July 18, 2024, the Company received a letter from the Staff informing the Company that it had regained compliance with the Minimum Bid Price Requirement, but that because it was still non-compliant with the Stockholder’s Equity Requirement the hearing would continue as scheduled as to the matter of the Stockholder’s Equity Requirement.

On July 23, 2024, the Company addressed the Panel and presented its plan of compliance for the Stockholder’s Equity Requirement to the Panel and is currently awaiting the Panel’s decision. There can be no assurance the Panel will grant any request for continued listing or that the Company will be able to regain compliance with the applicable listing criteria within the period of time that may be granted by the Panel.

If our Common Stock is delisted from Nasdaq, our ability to raise capital through public offerings of our securities and to finance our operations could be adversely affected. We also believe that delisting would likely result in decreased liquidity and/or increased volatility in our Common Stock and could harm our business and future prospects. In addition, we believe that, if our Common Stock is delisted, our stockholders would likely find it more difficult to obtain accurate quotations as to the price of the Common Stock and it may be more difficult for stockholders to buy or sell our Common Stock at competitive market prices, or at all.

If our Common Stock is delisted, our Common Stock would likely then trade only in the over-the-counter market. If our Common Stock were to trade on the over-the-counter market, selling our Common Stock could be more difficult because smaller quantities of shares would likely be bought and sold, transactions could be delayed, and we could face significant material adverse consequences, including: a limited availability of market quotations for our securities; reduced liquidity with respect to our securities; a determination that our shares are a “penny stock,” which will require brokers trading in our securities to adhere to more stringent rules, possibly resulting in a reduced level of trading activity in the secondary trading market for our securities; a reduced amount of news and analyst coverage for us; and a decreased ability to issue additional securities or obtain

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additional financing in the future. These factors could result in lower prices and larger spreads in the bid and ask prices for our Common Stock and would substantially impair our ability to raise additional funds and could result in a loss of institutional investor interest and fewer development opportunities for us.

In addition to the foregoing, if our Common Stock is delisted from Nasdaq and it trades on the over-the-counter market, the application of the “penny stock” rules could adversely affect the market price of our Common Stock and increase the transaction costs to sell those shares. The SEC has adopted regulations which generally define a “penny stock” as an equity security that has a market price of less than \$5.00 per share, subject to specific exemptions. If our Common Stock is delisted from Nasdaq and it trades on the over-the-counter market at a price of less than \$5.00 per share, our Common Stock would be considered a penny stock. The SEC’s penny stock rules require a broker-dealer, before a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the risks in the penny stock market. The broker-dealer must also provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and the salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer’s account. In addition, the penny stock rules generally require that before a transaction in a penny stock occurs, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser’s agreement to the transaction. If applicable in the future, these rules may restrict the ability of brokers-dealers to sell our Common Stock and may affect the ability of investors to sell their shares, until our Common Stock no longer is considered a penny stock.

On June 27, 2024, we effected a 1-for-35 reverse stock split of our outstanding Common Stock. All share amounts and warrant or option exercise prices contained in this prospectus reflect that adjustment. Additionally, in 2020, the SEC approved a Nasdaq rule change to expedite delisting of securities of companies that have had one or more reverse stock splits with a cumulative ratio of one for 250 or more shares over the prior two-year period. Under the new rules, if a company falls out of compliance with the \$1.00 minimum bid price after completing reverse stock splits over the immediately preceding two years that cumulatively result in a ratio one for 250 shares, the company will not be able to avail itself of any compliance periods and Nasdaq will instead require the issuance of a Staff delisting determination, which is appealable to a hearings panel. Our ability to remain listed on Nasdaq may be negatively impacted by this Nasdaq rule.

Sales of a substantial number of shares of our Common Stock by our stockholders in the public market could cause our stock price to fall.

The number of shares of Common Stock issuable upon conversion of our outstanding preferred stock and exercise of outstanding warrants is significant in relation to the number of shares of our Common Stock currently outstanding.

As of July 24, 2024, we have warrants to purchase 1,641,256 shares of Common Stock outstanding, with exercise prices ranging from \$3.88 to \$6,615,000.00 with a weighted-average exercise price of \$39.17.

As of July 24, 2024, there were 127 shares of Series F Convertible Preferred Stock outstanding, convertible into 15,240 shares of Common Stock. The certificate of designation for our Series F Convertible Preferred Stock contains an anti-dilution provision, which provision requires the lowering of the applicable conversion price, as then in effect, to the purchase price per share of Common Stock or Common Stock equivalents issued in the future. If the effective price per share on a Common-Stock equivalent basis in a future equity offering, including this offering, is lower than the then-current conversion price of the Series F Convertible Preferred Stock, then such conversion price shall be reduced to such lower price and additional shares of Common Stock will be issuable upon the conversion of the of the Series F Convertible Preferred Stock. To the extent the outstanding shares of Series F Convertible Preferred Stock become exercisable for additional shares of Common Stock, holders of our Common Stock will experience further dilution. As a result of this offering, the number of shares of Common Stock issuable upon conversion of the Series F Convertible Preferred Stock will be increased to 29,972 because the public offering price in this offering is less than the current conversion price of the Series F Convertible Preferred Stock, which will be adjusted to the public offering price per share of Common Stock in this offering.

As of July 24, 2024, there were 88 shares of Series J Convertible Preferred Stock outstanding, convertible into 62 shares of Common Stock and 23,762 Series J Convertible Preferred Stock issuable upon the exercise of 1,920 warrants issued in the October 2023 Offering.

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The April 2024 Warrants provide full ratchet anti-dilution adjustment to the exercise price and number of shares underlying the April 2024 Warrants upon our issuance of our common stock or common stock equivalents at a price per share that is less than the exercise price of the April 2024 Warrants, subject to certain exemptions. In no event will the exercise price of the April 2024 Warrants with respect to either adjustment be reduced below a floor price of \$0.06. As a result of this offering, the number of shares of Common Stock issuable upon exercise of the April 2024 Warrants may be proportionately increased because the current exercise price of the April 2024 Warrants, \$3.88, may be adjusted to the lower of (x) the public offering price per share of Common Stock in this offering and (y) the lowest VWAP on any trading day during the five trading day period immediately following the public announcement of this offering.

If any security holder determines to sell a substantial number of shares into the market at any given time, there may not be sufficient demand in the market to purchase the shares without a decline in the market price for our Common Stock. Moreover, continuous sales into the market of a number of shares in excess of the typical trading volume for our Common Stock could depress the trading market for our Common Stock over an extended period of time. Sales of a substantial number of shares of our Common Stock in the public market or the perception that these sales might occur could significantly reduce the market price of our Common Stock and impair our ability to raise adequate capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our Common Stock. As of July 24, 2024, we have outstanding warrants to purchase an aggregate of approximately 1,641,256 shares of our Common Stock, and options to purchase an aggregate of approximately 3,979 shares of our Common Stock, which, if exercised, may further increase the number of shares of our Common Stock outstanding and the number of shares eligible for resale in the public market.

The rights of holders of our capital stock will be subject to, and could be adversely affected by, the rights of holders of our outstanding preferred stock and stock that may be issued in the future.

Our Board has authority, without further stockholder approval, to issue additional shares of preferred stock with such rights, preferences and privileges as our board may determine. These rights, preferences and privileges may include dividend rights, conversion rights, voting rights and liquidation rights that may be greater than the rights of our Common Stock.

Our Board has previously approved, pursuant to this authority, the issuance of preferred stock, and we have 127 shares of Series F Convertible Preferred Stock outstanding and 88 shares of Series J Convertible Preferred Stock outstanding as of July 24, 2024. Upon liquidation, dissolution or winding-up of the Company, holders of our Series F Convertible Preferred Stock and Series J Convertible Preferred Stock have the right to receive, out of the assets, whether capital or surplus, of the Company an amount equal to the par value, plus any accrued and unpaid dividends thereon, for each share of such preferred stock held by such holder before any distribution or payment shall be made to the holders of our Common Stock, and, following such payment, such holders are entitled to receive the same amount that a holder of Common Stock would receive if such preferred stock was fully converted, *pari passu* with all the holders of Common Stock.

Our Board may issue additional series of preferred stock. As a result, the rights of holders of our capital stock will be subject to, and could be adversely affected by, the rights of holders of any stock that may be issued in the future.

There may be future sales of our securities or other dilution of our equity, which may adversely affect the market price of our Common Stock.

We are generally not restricted from issuing additional shares of Common Stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, Common Stock. The market price of our Common Stock could decline as a result of sales of Common Stock or securities that are convertible into or exchangeable for, or that represent the right to receive, common stock after this offering or the perception that such sales could occur.

We have a large number of authorized but unissued shares of stock, which could negatively impact a potential investor if they purchased our common stock.

On June 27, 2024, we effected a 1-for-35 reverse split of our outstanding Common Stock. This reverse stock split did not change the par value of our Common Stock or the number of common or preferred shares authorized by our Certificate of Incorporation. Because the number of authorized shares of our Common Stock

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was not reduced, investors may experience further dilution. As a result of this offering, the number of shares of Common Stock issuable upon conversion of the Series F Convertible Preferred Stock will be increased to 29,972 because the public offering price in this offering is less than the current conversion price of the Series F Convertible Preferred Stock, which will be adjusted to the public offering price per share of Common Stock in this offering. As a result of this offering, the number of shares of Common Stock issuable upon exercise of the April 2024 Warrants, \$3.88, may be proportionately increased because the current exercise price of the April 2024 Warrants may be adjusted to the lower of (x) the public offering price per share of Common Stock in this offering and (y) the lowest VWAP on any trading day during the five trading day period immediately following the public announcement of this offering

As of July 24, 2024, there were 88 shares of Series J Convertible Preferred Stock outstanding, convertible into 62 shares of Common Stock and 23,762 Series J Convertible Preferred Stock issuable upon the exercise of 1,920 warrants issued in the October 2023 Offering.

If any security holder determines to sell a substantial number of shares into the market at any given time, there may not be sufficient demand in the market to purchase the shares without a decline in the market price for our Common Stock. Moreover, continuous sales into the market of a number of shares in excess of the typical trading volume for our Common Stock could depress the trading market for our Common Stock over an extended period of time. Sales of a substantial number of shares of our Common Stock in the public market or the perception that these sales might occur could significantly reduce the market price of our Common Stock and impair our ability to raise adequate capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our Common Stock. As of July 24, 2024, we have outstanding warrants to purchase an aggregate of approximately 1,641,256 shares of our Common Stock, and options to purchase an aggregate of approximately 3,979 shares of our Common Stock, which, if exercised, may further increase the number of shares of our Common Stock outstanding and the number of shares eligible for resale in the public market.

We do not intend to pay cash dividends on our Common Stock in the foreseeable future.

We have never declared or paid any cash dividends on our Common Stock, and we currently do not anticipate paying any cash dividends in the foreseeable future. We intend to retain any earnings to finance the development and expansion of our products and business. Accordingly, our stockholders will not realize a return on their investments unless the trading price of our Common Stock appreciates.

USE OF PROCEEDS

We estimate that the net proceeds from this offering and the concurrent private placement will be approximately \$1.6 million, after deducting the placement agent fees and commissions and estimated offering expenses payable by us and excluding the proceeds we may receive from the exercise of the Private Placement Warrants issued in the concurrent private placement. We currently expect to use the net proceeds from this offering for working capital and general corporate purposes.

The amounts and timing of our actual expenditures may vary significantly and will depend on numerous factors, including market conditions, cash generated or used by our operations, business developments and opportunities that may arise and related rate of growth. We may find it necessary or advisable to use portions of the proceeds from this offering for other purposes.

Circumstances that may give rise to a change in the use of proceeds and the alternate purposes for which the proceeds may be used include:

- the existence of other opportunities or the need to take advantage of changes in timing of our existing activities;
- the need or desire on our part to accelerate, increase or eliminate existing initiatives due to, among other things, changing market conditions and competitive developments; and/or
- if strategic opportunities present themselves (including acquisitions, joint ventures, licensing and other similar transactions).

From time to time, we evaluate these and other factors and we anticipate continuing to make such evaluations to determine if the existing allocation of resources, including the proceeds of this offering, is being optimized.

Pending the application of the net proceeds as described above, we will hold the net proceeds from this offering in short-term, interest-bearing securities.

CONCURRENT PRIVATE PLACEMENT OF WARRANTS

Concurrently with the closing of the sale of Common Stock in this offering, we also expect to issue and sell to the purchasers of Common Stock in this offering warrants to purchase an aggregate of up to 938,680 shares of Common Stock at an initial exercise price equal to \$3.99 per share (the "Private Placement Warrants").

The Private Placement Warrants and the shares of Common Stock issuable upon the exercise of the Private Placement Warrants are not being registered under the Securities Act, are not being offered pursuant to this prospectus supplement and the accompanying prospectus and are being offered pursuant to the exemption provided in Section 4(a)(2) under the Securities Act and Rule 506(b) promulgated thereunder. Accordingly, the purchaser may only sell Common Stock issued upon exercise of the Private Placement Warrants pursuant to an effective registration statement under the Securities Act covering the resale of those shares, an exemption under Rule 144 under the Securities Act or another applicable exemption under the Securities Act.

Exercisability

The Private Placement Warrants will be exercisable immediately and expire five years from the initial date of issuance. The Private Placement Warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and, at any time a registration statement registering the issuance of the Common Stock underlying the Private Placement Warrants under the Securities Act is effective and available for the issuance of such shares, or an exemption from registration under the Securities Act is available for the issuance of such shares, by payment in full in immediately available funds for the number of Common Stock purchased upon such exercise. If at the time of exercise there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Common Stock underlying the Private Placement Warrants, then the Private Placement Warrants may also be exercised, in whole or in part, at such time by means of a cashless exercise, in which case the holder would receive upon such exercise the net number of shares of Common Stock determined according to the formula set forth in the Private Placement Warrant.

Exercise Limitation

A holder will not have the right to exercise any portion of the Private Placement Warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% (or 9.99% upon the request of the investor) of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Private Placement Warrants. However, any holder may increase or decrease such percentage, provided that any increase will not be effective until the 61st day after such election.

Exercise Price

The Private Placement Warrants will have an exercise price of \$3.99 per share. The exercise price 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 shareholders.

Transferability

In accordance with its terms and subject to applicable laws, a Private Placement Warrant may be transferred at the option of the holder upon surrender of the Private Placement Warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable).

Exchange Listing

There is no established public trading market for the Private Placement Warrants being issued in the concurrent private placement, and we do not expect a market to develop. We do not intend to apply for listing of the Private Placement Warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Private Placement Warrants will be limited.

Fundamental Transactions

In the event of any fundamental transaction, as described in the Private Placement Warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our Common Stock, then upon any subsequent exercise of a Private

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Placement Warrant, the holder will have the right to receive as alternative consideration, for each share of Common Stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of Common Stock of the successor or acquiring corporation or of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of Common Stock for which the Private Placement Warrant is exercisable immediately prior to such event. In addition, in the event of a fundamental transaction, we or any successor entity will be required to purchase at a 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), such holder's Private Placement Warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender for cash in an amount equal to the value of the remaining unexercised portion of such holder's Private Placement Warrants, determined in accordance with the Black Scholes option pricing model as more particularly set forth in the Private Placement Warrants.

Rights as a Shareholder

Except as otherwise provided in the Private Placement Warrants or by virtue of such holder's ownership of our Common Stock, the holder of a Private Placement Warrant does not have the rights or privileges of a holder of our Common Stock, including any voting rights, until the holder exercises the Private Placement Warrant.

Registration Rights

We have agreed to file a registration statement covering the resale of the shares underlying the Private Placement Warrants (the "Private Placement Warrant Shares") as soon as practicable (and in any event within 30 days of the date of the securities purchase agreement entered into between the purchasers and us). We must use commercially reasonable efforts to cause such registration statement to become effective within 60 days following the closing date of the offering (or, in the event of a review by the SEC, the 90th calendar day following the closing date of the offering) and to keep such registration statement effective at all times until the purchasers no longer own any Private Placement Warrants or Private Placement Warrant Shares.

PLAN OF DISTRIBUTION

Roth Capital Partners, LLC (the “placement agent”), has agreed to act as our exclusive placement agent in connection with this offering, subject to the terms and conditions of the Placement Agency Agreement, dated July 24, 2024. The placement agent is not purchasing or selling any of the securities offered by this prospectus supplement, nor is it required to arrange the purchase or sale of any specific number or dollar amount of securities but has agreed to use its reasonable best efforts to arrange for the sale of all of the securities offered hereby. We may not sell the entire amount of securities offered pursuant to this prospectus.

In connection with this offering, we entered into a securities purchase agreement with each purchaser. This agreement includes representations and warranties by us and the purchaser.

We will deliver the securities being issued to the investor upon receipt of such investor’s funds for the purchase of the securities offered pursuant to this prospectus supplement. We expect to deliver the shares of our Common Stock being offered pursuant to this prospectus supplement on or about July 25, 2024.

We have agreed to indemnify the placement agent against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the placement agent may be required to make in respect thereof.

Fees and Expenses

We have engaged the placement agent as our exclusive placement agent in connection with this offering. This offering is being conducted on a “reasonable best efforts” basis and the placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities. We have agreed to pay the placement agent a fee based on the aggregate proceeds as set forth in the table below.

	Per Share	Total
Offering Price	\$ 4.24	\$1,990,001.60
Placement agent fees ⁽¹⁾	\$0.2968	\$ 139,300.11
Proceeds, before expenses, to us ⁽²⁾	\$3.9432	\$1,850,701.49

(1) We have agreed to pay a fee to the placement agent equal to 7.0% of the aggregate gross proceeds raised in this offering and to reimburse the placement agent for its expenses of up to \$100,000 in connection with this offering.

(2) The amount of the offering proceeds to us presented in this table does not include proceeds from the concurrent private placement or the exercise of the Private Placement Warrants.

We estimate the total expenses payable by us for this offering, excluding placement agent fees and expenses, will be approximately \$177,200.

Lock-Up Agreements

Each of our executive officers and directors have agreed to be subject to a lock-up period of 90 days following the date of this prospectus. This means that, during the applicable lock-up period, they may not offer for sale, contract to sell, or sell any shares of Common Stock or any securities convertible into, or exercisable or exchangeable for, shares of Common Stock subject to certain customary exceptions. In addition, we have agreed to not issue any shares of Common Stock or securities exercisable or convertible into shares of Common Stock for a period of 30 days following the closing date of this offering, subject to certain exceptions, and to not issue any securities that are subject to a price reset based on trading prices of Common Stock or upon a specified or contingent event in the future, or enter into an agreement to issue securities at a future determined price, for a period of 180 days following the closing date of this offering, subject to certain exceptions.

Tail

We have also agreed to pay the placement agent a tail fee equal to the cash compensation in this offering, if any investor, who was contacted or introduced to us by the placement agent during the term of their engagement who was not a prior investor in us, provides us with capital in any public or private offering or other financing or capital raising transaction during the 12-month period following the termination or expiration of our engagement letter with the placement agent, subject to certain exceptions.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including certain liabilities arising under the Securities Act or to contribute to payments that the placement agent may be required to make for these liabilities.

Regulation M

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the securities sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent acting as principal. Under these rules and regulations, the placement agent (i) may not engage in any stabilization activity in connection with our securities and (ii) may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Other Relationships

The placement agent and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The placement agent and certain of its affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses. The placement agent was the placement agent in our public offering that closed in April of 2024, pursuant to which it received \$189,000 in placement agent fees and was reimbursed for \$108,000 of its expenses.

In the ordinary course of their various business activities, the placement agent and certain of 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 their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the placement agent or its affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The placement agent and its affiliates may hedge such exposure by entering into transactions that consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the securities offered hereby. Any such short positions could adversely affect future trading prices of the securities offered hereby. The placement agent and certain of its affiliates may also communicate independent investment recommendations, market color or trading ideas 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.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon for us by Honigman LLP, Kalamazoo, Michigan. Lowenstein Sandler LLP, New York, New York, is acting as counsel to the placement agent in connection with certain legal matters related to this offering.

EXPERTS

The financial statements as of December 2023 and 2022 and the years ended December 2023 and 2022, incorporated by reference in this prospectus have been so incorporated in reliance on the report of Baker Tilly US, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus supplement for a copy of such contract, agreement or other document. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus supplement of any sale of the securities offered by this prospectus supplement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Nuwellis. The address of the SEC's website is <http://www.sec.gov>.

We maintain a website at www.nuwellis.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We “incorporate by reference” certain documents that we have filed with the SEC into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information contained directly in this prospectus. This prospectus incorporates by reference:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on [March 11, 2024](#);
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on [May 8, 2024](#);
- our Current Reports on Form 8-K filed with the SEC on [February 6, 2024](#), [March 26, 2024](#), [May 1, 2024](#), [May 29, 2024](#), [June 6, 2024](#), [June 10, 2024](#), [June 26, 2024](#), [July 3, 2024](#), [July 17, 2024](#) (as amended on [July 17, 2024](#)), [July 17, 2024](#), and [July 25, 2024](#); and
- the description of our common stock in our registration statement on Form 10 filed with the SEC on [September 30, 2011](#), including [Exhibit 4.14](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

All documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any report or document that is not deemed filed under such provisions, (i) prior to the termination of the offering and (ii) on or after the date of this prospectus supplement until the earlier of the date on which all of the securities registered hereunder have been sold or the registration statement of which this prospectus is a part has been withdrawn, shall be deemed incorporated by reference in this prospectus and to be a part of this prospectus from the date of filing of those documents. Nothing in this prospectus shall be deemed to incorporate information furnished but not filed with the SEC pursuant to Item 2.02 or 7.01 of Form 8-K.

These documents may also be accessed on our website at www.nuwellis.com. Information contained in, or accessible through, our website is not a part of this prospectus. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and information regarding issuers that file electronically with the SEC.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all reports or documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those reports or documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address:

Nuwellis, Inc.
Attention: Nestor Jaramillo, Chief Executive Officer
12988 Valley View Road
Eden Prairie, MN 55344
Tel: (952) 345-4200

Any statements contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus (or in any other subsequently filed document which also is incorporated by reference in this prospectus) modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed to constitute a part of this prospectus except as so modified or superseded.



\$25,000,000

**Common Stock
Preferred Stock
Debt Securities
Warrants**

Offered, from time to time, by Nuwellis, Inc.

From time to time, we may offer and sell up to an aggregate amount of \$25,000,000 of any combination of the securities described in this prospectus, either individually or in combination, at prices and on terms described in one or more supplements to this prospectus. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable antidilution provisions.

This prospectus describes some of the general terms that may apply to an offering of our securities that we may offer. Each time we offer securities, we will provide specific terms of the securities in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the securities being offered.

This prospectus may not be used to consummate a sale of any securities unless accompanied by a prospectus supplement.

We are a “smaller reporting company” under the federal securities laws and, as such, are subject to reduced public company reporting requirements. As of June 28, 2024, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$1.7 million based on 515,627 shares of outstanding common stock, at a price of \$9.93 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on May 28, 2024. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus. Pursuant to General Instruction I.B.6. of Form S-3, in no event will we sell securities registered on this registration statement in a public offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75 million. See “Summary – Implications of Being a Smaller Reporting Company”.

Our common stock is listed on The Nasdaq Capital Market, or Nasdaq, under the symbol “NUWE.” On June 28, 2024, the last reported sale price of our common stock was \$5.03 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on Nasdaq or any securities market or other exchange of the securities, if any, covered by the applicable prospectus supplement. Our principal executive offices are located at 12988 Valley View Road, Eden Prairie, Minnesota 55344 and our telephone number is (952) 345-4200.

We will sell these securities directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled “Plan of Distribution” in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading “Risk Factors” contained in this prospectus on page 8, in our most recent Annual Report on Form 10-K incorporated by reference into this prospectus, in the applicable prospectus supplement and in any free writing prospectuses we have authorized for use in connection with a specific offering, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

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ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration statement, we may from time to time, offer and sell, either individually or in any combination of the securities described in this prospectus in one or more offerings up to a total aggregate offering price of \$25,000,000. This prospectus provides you with a general description of the securities we may offer.

Each time we offer securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should carefully read both this prospectus and the applicable prospectus supplement and any related free writing prospectus, together with the additional information described under “Where You Can Find More Information”, before buying any of the securities being offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we may authorize for use in connection with a specific offering. We have not authorized anyone to provide you with different or additional information. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus, the accompanying prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus contains and incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe that these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus and the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the section entitled “Where You Can Find More Information.”

No action is being taken in any jurisdiction outside the United States to permit a public offering of our securities or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

This prospectus contains references to trademarks belonging to us and other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we

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will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Except as otherwise indicated herein or as the context otherwise requires, references in this prospectus to "Nuwellis," "the company," "we," "us," and similar references refer to Nuwellis, Inc., a corporation incorporated under the laws of the State of Delaware.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements and related notes, and the exhibits to the registration statement of which this prospectus is a part, before making your investment decision.

Company Overview

We are a medical technology company dedicated to transforming the lives of patients suffering from fluid overload through science, collaboration, and innovative technology. The company is focused on developing, manufacturing, and commercializing medical devices used in ultrafiltration therapy, including the Aquadex FlexFlow® and the Aquadex SmartFlow® systems (collectively the “Aquadex System”). The Aquadex SmartFlow® system is indicated for temporary (up to eight hours) or extended (longer than 8 hours in patients who require hospitalization) use in adult and pediatric patients weighing 20 kg or more whose fluid overload is unresponsive to medical management, including diuretics.

Please note that selected authors in the citations below are either current consultants to the Company or were previously compensated consultants. Each author typically is required to disclose any actual or potential conflicts of interests at the time they submitted their written manuscript to the potential publication. Dr. Sean Pinney for example, is the principle investigator under the Company’s current REVERSE heart failure clinical study. Additionally, Dr. Maria Rosa Costanzo, joined the Company’s Board of Directors in September, 2019, though many of her cited publications preceded her membership on the Board of Directors. Since joining the Company’s Board, Dr. Costanzo has declined any equity ownership in the Company, although she has accepted cash remuneration for her Board and Committee participation.

Fluid Overload

Fluid overload, also known as hypervolemia, is a condition in which there is too much fluid in the blood, vital organs, and interstitial space, and generally refers to the expansion of the extracellular fluid volume. Although the body does need some amount of fluid to remain healthy, too much can cause an imbalance and damage to an individual’s health.¹

The signs and symptoms of fluid overload are not always the same in each patient and may vary. However, possible signs and symptoms of fluid overload include pulmonary edema/pleural effusion, peripheral edema, anasarca (swelling of the skin) ascites, jugular vein distention and dyspnea.² Medical conditions or diseases where excess fluid accumulates in the body are heart failure, kidney failure, nephrotic syndrome, cirrhosis, or burn injuries/trauma. Individuals may also suffer from temporary fluid overload following certain surgical procedures, such as cardiac surgery.³ The diagnosis of fluid overload can be made through a variety of tests/exams such as a physical exam (weight, presence of pulmonary rales, and edema), blood chemistry, natriuretic peptides, liver enzymes, hemoglobin and hematocrit, blood volume analysis, and/or bioimpedance analysis.⁴ Fluid overload has a significant association with the combined events of death, infection, bleeding, arrhythmia, and pulmonary edema⁵ and is a leading cause of hospital readmissions with patients suffering from heart failure and patients following cardiac surgery.⁶

The condition of fluid overload is often observed in patients with heart failure and secondary oliguric states,⁷ although in pediatric patients, fluid overload is associated with significant increases in

¹ Murugan R et al. *Nature Rev Nephrol.* 2020; 1-14.

² Koratala A et al. *Cardiorenal Med.* 2022;12(4):141-154.

³ Vaara ST et al. *Crit Care.* 2012; 16: 1-11.

⁴ Koratala A et al. *Cardiorenal Med.* 2022;12(4):141-154.

⁵ Stein, A, et. al. *Critical Care.* 2012;16:R99.

⁶ Iribarne A, et al. *Ann Thorac Surg.* 2014; 98(4): 1274-80.

⁷ Ronco C, Costanzo MR, Bellomo R, et al. (2010) *Fluid Overload Diagnosis and Management.* Basel, Switzerland: Karger.

mortality.⁸⁻⁹ Congestion or fluid overload, the hallmark of decompensated heart failure or HF, is the primary reason for hospitalization in 90% of these patients.¹⁰⁻¹¹ For this reason, diuretics have been the cornerstone of heart failure treatment for more than 50 years.¹² Over the past 20 years, approaches to treatment have changed dramatically.¹³

These dramatic improvements include new medications and new technologies, such as ultrafiltration, to help treat fluid overload. Each year there are over 1 million heart failure hospitalizations in the United States, and 90% of those hospitalizations are due to symptoms of fluid overload.¹⁴ These patients are hospitalized on average for 8 days at a cost of approximately \$24,000, as to which reimbursement does not cover the full cost.¹⁵

Treatments for Fluid Overload

Diuretics

Treatment for fluid overload has traditionally been achieved through use of oral or loop diuretics which may be accompanied by use of other categories of medications, such as angiotensin-converting enzyme (ACE) inhibitors, sodium-glucose co-transporter 2 (SGLT-2) inhibitors, Aldosterone receptor antagonists (MRAs), beta-blockers, and inotropic drugs. Chronic diuretic use has been associated with increased long-term mortality and hospitalizations in a wide spectrum of chronic systolic and diastolic HF patients.¹⁶ We believe that diuretics, particularly at high doses, may be deleterious to patients. Additionally, between 10-40% of heart failure patients are refractory to diuretics,¹⁷ with diuretic resistance associated with a higher risk of in-hospital worsening of heart failure, increase mortality after discharge, and a 3-fold increase in rehospitalization rates.¹⁸ In addition, patients with heart failure and cardiorenal syndrome have diminished response to loop diuretics, making these agents less effective at relieving congestion.¹⁹ Also, long term use of diuretics has been associated with kidney damage.²⁰ One study found that approximately 40% of heart failure patients have poor diuretic response.²¹ This poor response is possibly due to noncompliance or high intake of salt, poor drug absorption, insufficient kidney response to drug, and reduced diuretic secretion.²² Despite treatment with loop diuretics, patients are frequently hospitalized and treated for recurrent symptoms and signs of fluid overload.

Nearly one-half of hospitalized patients with heart failure are discharged with residual fluid excess after receiving conventional diuretic therapies.²³ Additionally, one study found that 24% of such patients were readmitted to the hospital within 30 days of their discharge, and up to 42-50% were readmitted at 90 days and 6 months respectively.²⁴⁻²⁵ Regardless of diuretic strategy, 42% of acutely decompensated heart failure subjects in the DOSE (Diuretic Optimization Strategies Evaluation) trial reached the composite endpoint of death, rehospitalization, or emergency department visit at 60 days.²⁶ We believe that there is an association of chronic loop diuretic therapy and greater resource utilization at hospitals.²⁷ Therefore, an alternative therapy to help stabilize or improve patient care is needed.

⁸ Sutherland SM, et al. *Am J Kidney Disease*. 2010; 5(2): 316-25.

⁹ Gillespie RS, et al. *Ped Nephro*. 2004; 19(12): 1394-99.

¹⁰ Kazory A & Costanzo MR. *Adv Chronic Kidney Dis*. 2018; 25(5): 434-442.

¹¹ Fonarow GC. *Rev Cardiovasc Med*. 2003; 4: s21-30.

¹² Kamath SA. *Int J of Nephrol*. 2011; 1-6.

¹³ Ellison DH. *Cardio*. 2001;96:132-143.

¹⁴ Costanzo MR, et al. *J Am Coll Cardiol*. 2017 May 16;69(19):2428-2445.

¹⁵ Gheorghade M, et al. *Eur Heart J Suppl*. 2005; 7:B13- 19.

¹⁶ Ahmed A, et al. *Eur Heart J*. 2006 Jun;27(12):1431-9.

¹⁷ Testani JM, Hanberg JS, Cheng S et al. *Circ Heart Fail*. 2016; 9(1): e002370.

¹⁸ Costanzo MR, et al. *J Am Coll Cardiol*. 2017;69(19):2428-2445.

¹⁹ Kamath SA. *Int J of Nephrol*. 2011: 1-6.

²⁰ Felker MG & Mentz RJ. *J Am Coll Cardiol*. 2012;59(24):2145-53.

²¹ Testani JM. *Circ Heart Fail*. 2016 Jan;9(1):e002370.

²² Hoorn EJ & Ellison DH. *Am J Kidney Dis*. 2017;69(1):136-142.

²³ Orso D, et al. *Eur Rev Med Pharmacol Sci*. 2021 Apr;25(7):2971-2980.

²⁴ Costanzo MR, et al. *J Am Coll Cardiol*. 2017;69(19):2428- 2445.

²⁵ Thandra A, et al. *Clin Invest*. 2023; 365(2): 145-51.

²⁶ Felker GM, et al. *N Engl J Med*. 2011; 364:797-805.

²⁷ Costanzo MR, et al. *J Am Coll Cardiol*. 2007; 49(6):675-683.

Ultrafiltration.

Ultrafiltration, or aquapheresis, is an alternative therapy to diuretics for fluid removal in patients with volume overload. Ultrafiltration has been a well-documented technique in the treatment of fluid overload in heart failure patients for over 20 years.²⁸ We believe that ultrafiltration is a safe and effective therapy to treat fluid overload and congestion by removing the overload of fluid and congestion by removing extra fluid and salt.²⁹ With ultrafiltration, medical practitioners can specify and control the amount of fluid to be extracted at a safe, predictable, and effective rate. The use of ultrafiltration therapy in subgroups of patients, such as heart failure and post-cardiac surgery, has demonstrated clinical benefits in treating fluid overload signs and symptoms. In addition to the clinical benefits of ultrafiltration, we believe the data suggests that the therapy provides economic advantages. One hospital cost analysis demonstrated a total cost savings of \$3,975 per patient when using ultrafiltration as compared to diuretic therapy over 90 days.³⁰

The Aquadex System

The Aquadex System is designed and clinically proven to simply, safely, and precisely remove excess fluid (primarily excess salt and water) from patients suffering from fluid overload who have failed diuretic therapy.

With the Aquadex System, medical practitioners can specify and control the amount of fluid to be extracted at a safe, predictable, and effective rate. The Aquadex System has been shown to have no clinically significant impact on electrolyte balance, blood pressure or heart rate.^{31 32} Unlike other forms of ultrafiltration, which typically require administration specifically by a nephrologist, the Aquadex System may be prescribed by any physician and administered by a healthcare provider, both of whom have received training in extracorporeal therapies. The Company estimates it has treated nearly 26,000 patients across all three (3) of our customer categories, since it reintroduced the Aquadex System to the U.S. market in 2016.

Benefits of the Aquadex System

The Aquadex System offers a safe approach to treating fluid overload and:

- In a single center, retrospective analysis of 335 consecutive patients, patients in whom there was follow-up for 12 months, there were 1.74 fewer rehospitalizations for HF in the year following UF when compared to the 12 months preceding UF;
- Rehospitalizations at 30 days with Aquadex were 12.4% compared with the national average at 30 days of 24%;
- Reduces length of hospital stay when initiated early, resulting in average savings of \$3,975 (14%);³³
- Stabilizes or improves cardiac hemodynamics;^{34 35}
- Safe, easy-to-use, and flexible in application;
- Provides complete control over rate and total volume of fluid removed by allowing a medical practitioner to specify the amount of fluid to be removed from each individual patient;
- Can be performed via peripheral or central venous access;
- Predictably removes excess isotonic fluid (extracts water and sodium while sparing potassium and magnesium; decrease risk of electrolyte abnormalities);^{36 37}

²⁸ Agostoni PG, et al. *J Am Coll Cardiol.* 1993; 21(2):424-431.

²⁹ Kazory A, et al. *Cardiorenal Med.* 2023;13(1)1-8.

³⁰ Costanza MR, et al. *Value Health.* 2018; 21 (Suppl 1):S167.

³¹ SAFE Trial: Jaski BE, et al. *J Card Fail.* 2003; 9(3): 227-231.

³² RAPID Trial: Bart BA, et al. *J Am Coll Cardiol.* 2005; 46(11): 2043-2046.

³³ Costanza MR, et al. *Value Health.* 2018; 21 (Suppl 1):S167.

³⁴ Boga M, et al. *Perf.* 2000; 15:143-150.

³⁵ Kiziltepe U, et al. *Ann Thorac Surg* 2001;71:684-93.

³⁶ Kazory A, et al. *Cardiorenal Med.* 2023;13(1)1-8.

³⁷ Agostoni PG et al. *J Am Coll Cardiol.* 1993;21(2):424-31.

- No significant changes to kidney function;³⁸
- The use of continuous hematocrit monitoring and SvO₂ sensor provides guided-therapy ultrafiltration.³⁹
- Following ultrafiltration, neurohormonal activation is reset toward a more physiological condition and diuretic efficacy is restored;⁴⁰
- Provides highly automated operation with only one setting required to begin therapy;
- Utilizes a single-use, disposable auto-loading blood filter circuit that facilitates easy set-up; and
- Has a built-in console that guides the medical practitioner through the setup and operational process.

Components of the Aquadex System

The Aquadex System consists of:

- A console, a piece of capital equipment containing electromechanical pumps, an LCD screen and stand;
- A one-time disposable blood circuit set, an integrated collection of tubing, filter, sensors, and connectors that contain and deliver the blood from and back to the patient; and
- A disposable catheter, a small, dual-lumen, extended length catheter designed to access the peripheral venous system of the patient and to simultaneously withdraw blood and return filtered blood to the patient.

Product Development Activities

As we expand our commercialization efforts in the pediatric market, we are developing a Continuous Renal Replacement Therapy (CRRT) device, branded Vivian, to address the unmet and specific needs of pediatric patients weighing 2.5kg and above who do not have functioning kidneys and who need kidney replacement therapy for survival. It is estimated that approximately 11,000 newborn babies require neonatal kidney replacement therapy each year in the United States. Funded in part by a \$1.7 million grant from the National Institute of Health, the Company completed preliminary engineering and testing for its dedicated pediatric system in the fourth quarter of 2023, and finalized its IDE protocol with the FDA. The Company intends to submit an IDE with the FDA in the third quarter of 2024, with U.S. commercialization of this product expected in the fourth quarter of 2025.

Corporate Information

Nuwellis, Inc. was incorporated in Delaware on August 22, 2002. We began operating our business in November 1999 through Sunshine Heart Company Pty Limited, which dissolved as a wholly owned Australian subsidiary of Nuwellis, Inc in 2020. Our common stock began trading on the Nasdaq Capital Market on February 16, 2012.

Our principal executive offices are located at 12988 Valley View Road, Eden Prairie, Minnesota 55344, and our telephone number is (952) 345-4200. Our website address is www.nuwellis.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) will be made available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (“SEC”). These reports are also available on the SEC’s website, www.sec.gov. The information on, or that may be accessed through, our website is not incorporated by reference into and should not be considered a part of this prospectus or the registration statement of which it forms a part.

Our common stock is listed on Nasdaq, under the symbol “NUWE.” The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on Nasdaq or any other securities market or other exchange of the securities covered by the applicable prospectus supplement.

³⁸ Kazory A, et al. *Cardiorenal Med.* 2023;13(1):1-8.

³⁹ Starr MC, et al. *Pediatric Nephrology.* 2024; 39(2):597-601.

⁴⁰ Costanzo MR, et al. *J Am Coll Cardiol.* 2005; 46(11): 2047-51.

Implications of Being a Smaller Reporting Company

We are a “smaller reporting company”, as defined in Rule 12b-2 of the Exchange Act of 1934, as amended (the “Exchange Act”), meaning that the market value of our shares held by non-affiliates is less than \$700 million and our annual revenue was less than \$100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company if either (i) the market value of our shares held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700 million. As a smaller reporting company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation. Additionally, as a smaller reporting company, we may continue to take advantage of the exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended. If investors consider our common shares less attractive as a result of our election to use the scaled-back disclosure permitted for smaller reporting companies, there may be a less active trading market for our common shares and our share price may be more volatile.

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of debt securities and/or warrants to purchase any of such securities, either individually or in combination with other securities, up to a total aggregate offering price of \$25,000,000 from time to time in one or more offerings under this prospectus, together with the applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

- designation or classification;
- aggregate principal amount or aggregate offering price;
- maturity, if applicable;
- original issue discount, if any;
- rates and times of payment of interest or dividends, if any;
- redemption, conversion, exchange or sinking fund terms, if any;
- ranking, if applicable;
- restrictive covenants, if any;
- voting or other rights, if any;
- conversion or exchange prices or rates, if any, and, if applicable, any provisions for changes to or adjustments in the conversion or exchange prices or rates and in the securities or other property receivable upon conversion or exchange; and
- important U.S. federal income tax considerations, if any.

The applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our or their agents, underwriters or dealers reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities to or through agents, underwriters or dealers, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the estimated net proceeds to us.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

Common Stock. We may offer shares of our common stock from time to time. Holders of our common stock are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval, as further set forth herein under the heading “Description of Common Stock.” Subject to any preferential rights of any then outstanding preferred stock, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the assets remaining after payment of liabilities and the liquidation preferences of any then outstanding preferred stock. Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock, or any redemption rights. We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus) related to any common stock being offered.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the designations, voting powers, preferences and rights of the preferred stock, as well as the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series, any or all which may be greater than the rights of our common stock. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

We will fix the rights, preferences, privileges, qualifications and restrictions of the preferred stock of each series that we sell under this prospectus and applicable prospectus supplements in a certificate of designation relating to that series. We will file as an exhibit to, or incorporate by reference into, the registration statement of which this prospectus is a part the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the prospectus supplement (and any related free writing prospectus) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Debt Securities. We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Convertible or exchangeable debt securities will be convertible into or exchangeable for our common stock or our other securities. Conversion or exchange may be mandatory or optional (at our option or the holders’ option) and would be at prescribed conversion or exchange rates.

Any debt securities issued under this prospectus will be issued under one or more documents called indentures, which are contracts between us and a national banking association or other eligible party, as trustee. In this prospectus, we have summarized certain general features of the debt securities under “Description of Debt Securities.” We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of debt securities being offered, as well as the complete indenture and any supplemental indentures that contain the terms of the debt securities. A

form of indenture has been filed as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

Warrants. We may issue warrants for the purchase of common stock, preferred stock and/or debt securities, in one or more series. We may issue warrants independently or in combination with common stock, preferred stock and/or debt securities offered by any prospectus supplement. In this prospectus, we have summarized certain general features of the warrants under “Description of Warrants.” We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as any warrant agreements and warrant certificates, as applicable, that contain the terms of the warrants. We have filed forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants that may be offered as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that contain the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants.

Any warrants issued under this prospectus may be evidenced by warrant certificates. Warrants also may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

Use of Proceeds. Except as described in any prospectus supplement or any related free writing prospectus that we may authorize to be provided to you, we currently intend to use the net proceeds from the sale of the securities offered hereby for general corporate purposes, which may include research and development, capital expenditures, working capital and general and administrative expenses. See “Use of Proceeds” in this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described under “Risk Factors” in the applicable prospectus supplement, together with all of the other information under similar headings appearing in this prospectus or incorporated by reference into this prospectus and any applicable prospectus supplement, in light of your particular investment objectives and financial circumstances. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. This prospectus and the incorporated documents also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned elsewhere in this prospectus. Such factors, if they were to occur, could materially adversely affect our financial condition or future results. Although we are not aware of any other factors that we currently anticipate will cause our forward-looking statements to differ materially from our future actual results, or materially affect the Company’s financial condition or future results, additional risks and uncertainties not currently known to us or that we currently deem to be immaterial might materially adversely affect our actual business, financial condition and/or operating results. You should also consider the risks, uncertainties and assumptions discussed under the heading “Risk Factors” included in our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, which is on file with the SEC and incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. See “Where You Can Find More Information” and “Incorporation of Certain Information by Reference”.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking uncertainties. In some cases, you can identify forward-looking statements by the use of words or phrases such as “anticipates,” “could,” “would,” “should,” “will,” “would,” “may,” “might,” “potential,” “contemplates,” “estimates,” “plans,” “seeks,” “projects,” “predicts,” “targets,” “objectives,” “continuing,” “ongoing,” “expects,” “management believes,” “we believe,” “we intend,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus, and in particular those factors included in the sections entitled “Risk Factors” in this prospectus and in our most recent Annual Report on Form 10-K and our most recent Quarterly Report on Form 10-Q, which are on file with the SEC and incorporated herein by reference.

Forward-looking statements are based on management’s current expectations, estimates, forecasts and projections about our business and the industry in which we operate, and management’s beliefs and assumptions are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. You should refer to the “Risk Factors” sections of our Annual Report on Form 10-K and our Quarterly Report on Form 10-Q for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

You should carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein or therein by reference as described under the section titled “Incorporation of Certain Information by Reference,” and with the understanding that our actual future results may materially differ from what we expect.

Except as required by law, forward-looking statements speak only as of the date of this prospectus, and we assume no obligation to update or revise any forward-looking statements for any reason, even if new information becomes available in the future. You should, however, review the factors and risks and other information we describe in the reports we will file from time to time with the SEC after the date of this prospectus.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from our sale of securities offered hereby. Except as described in any prospectus supplement or free-writing prospectus, we currently anticipate using the net proceeds from our sale of securities offered hereby primarily for general corporate purposes and for working capital expenditures. We will set forth in the applicable prospectus supplement or free writing prospectus our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement or free writing prospectus.

DESCRIPTION OF COMMON STOCK

The following summary description of our common stock is based on the provisions of our fourth amended and restated certificate of incorporation, as amended, as well as our third amended and restated bylaws and the applicable provisions of the Delaware General Corporation Law. This information is qualified entirely by reference to the applicable provisions of our fourth amended and restated certificate of incorporation, as amended, third amended and restated bylaws and the Delaware General Corporation Law. For information on how to obtain copies of our fourth amended and restated certificate of incorporation, as amended and third amended and restated bylaws, which are exhibits to the registration statement of which this prospectus is a part, see “Where You Can Find Additional Information.” We refer in this section to our fourth amended and restated certificate of incorporation, as amended, and our third amended and restated bylaws as our “certificate of incorporation” and our “bylaws”, respectively.

General

We have authority to issue up to 100,000,000 shares of common stock, par value \$0.0001 per share. As of June 28, 2028, we had 515,744 shares of our common stock outstanding, 543,222 shares of our common stock issuable upon exercise of outstanding warrants, and 3,979 shares of our common stock issuable upon exercise of outstanding options. All outstanding shares of our common stock are fully paid and non-assessable.

The transfer agent and registrar for transfers of shares of our common stock is Equiniti Trust Company, LLC.

The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of shares of series of preferred stock that we may designate and issue in the future.

Subject in all cases to the foregoing limitations, the holders of our common stock have the rights, preferences and privileges below.

Dividends

Holders of our common stock are entitled to receive dividends when and as declared by our board of directors out of funds legally available.

Voting

Holders of our common stock are entitled to one vote for each share on each matter properly submitted to our stockholders for their vote; provided however, that except as otherwise required by law, holders of our common stock will not be entitled to vote on any amendment to our certificate of incorporation (including any certificate of designation filed with respect to any series of preferred stock) that relates solely to the terms of a series of outstanding preferred stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to our certificate of incorporation (including any certificate of designation filed with respect to any series of preferred stock).

Subject to the voting restrictions described above, holders of our common stock may adopt, amend or repeal our bylaws and/or alter certain provisions of our certificate of incorporation with the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of our capital stock entitled to vote generally in the election of directors, voting together as a single class, in addition to any vote of the holders of a class or series of our stock required by law or our certificate of incorporation. Those provisions of our certificate of incorporation that may be altered only by the super-majority vote described above relate to:

- the number of directors on our board of directors, the classification of our board of directors and the terms of the members of our board of directors;
- the limitations on removal of any of our directors described below under “Description of Common Stock – Anti-Takeover Effects of Certain Provisions of Our Certificate of Incorporation and Bylaws and Delaware Law;”
- the ability of our directors to fill any vacancy on our board of directors by the affirmative vote of a majority of the directors then in office under certain circumstances;

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- the ability of our board of directors to adopt, amend or repeal our bylaws and the super-majority vote of our stockholders required to adopt, amend or repeal our bylaws described above;
- the limitation on action of our stockholders by written action described below under “Description of Common Stock – Anti-Takeover Effects of Certain Provisions of Our Certificate of Incorporation and Bylaws and Delaware Law;”
- the choice of forum provision described below under “Description of Common Stock – Choice of Forum;”
- the limitations on director liability and indemnification described below under the heading “Description of Common Stock – Limitation on Liability of Directors and Indemnification;” and
- the super-majority voting requirement to amend our certificate of incorporation described above.

Conversion, Redemption and Preemptive Rights

Holders of our common stock do not have any conversion, redemption or preemptive rights pursuant to our organizational documents.

Liquidation, Dissolution and Winding-up

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in any assets remaining after the satisfaction in full of the prior rights of creditors and the aggregate of any liquidation preference pursuant to the terms of any certificate of designations filed with respect to any series of preferred stock, including our outstanding Series F Preferred Stock.

Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol “NUWE.”

Anti-Takeover Effects of Certain Provisions of Our Certificate of Incorporation and Bylaws and Delaware Law

Certificate of Incorporation and Bylaws

Certain provisions of our certificate of incorporation and bylaws may be considered to have an anti-takeover effect, such as those provisions:

- providing for our board of directors to be divided into three classes with staggered three-year terms, with only one class of directors being elected at each annual meeting of our stockholders and the other classes continuing for the remainder of their respective three-year terms;
- authorizing our board of directors to issue from time to time any series of preferred stock and fix the voting powers, designation, powers, preferences and rights of the shares of such series of preferred stock;
- prohibiting stockholders from acting by written consent in lieu of a meeting;
- requiring advance notice of stockholder intention to put forth director nominees or bring up other business at a stockholders’ meeting;
- prohibiting stockholders from calling a special meeting of stockholders;
- requiring a 66²/₃% super-majority stockholder approval in order for stockholders to alter, amend or repeal certain provisions of our certificate of incorporation;
- requiring a 66²/₃% super-majority stockholder approval in order for stockholders to adopt, amend or repeal our bylaws;
- providing that, subject to the rights of the holders of any series of preferred stock to elect additional directors under specified circumstances, neither the board of directors nor any individual director may be removed without cause;

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- creating the possibility that our board of directors could prevent a coercive takeover of our Company due to the significant amount of authorized, but unissued shares of our common stock and preferred stock;
- providing that, subject to the rights of the holders of any series of preferred stock, the number of directors shall be fixed from time to time exclusively by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- providing that any vacancies on our board of directors under certain circumstances will be filled only by a majority of our board of directors then in office, even if less than a quorum, and not by the stockholders.

Delaware Law

We are also subject to Section 203 of the Delaware General Corporation Law, as amended (the “DGCL”), which generally prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- prior to that date, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (i) persons who are directors and also officers and (ii) 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
- on or subsequent to that date, the business combination is approved by our board of directors 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.

In general, Section 203 defines a “business combination” to include the following:

- any merger or consolidation involving the corporation or a direct or indirect majority-owned subsidiary of the corporation and the interested stockholder;
- any sale, lease, mortgage, pledge transfer, or other disposition of the assets of the corporation or direct or indirect majority-owned a subsidiary of the corporation to or with the interested stockholder, which assets have an aggregate value equal to 10% or more of the fair value of the assets on a consolidated basis or the aggregate market value of the outstanding stock of the corporation;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation or a direct or indirect majority-owned subsidiary of the corporation of any stock of the corporation or subsidiary to the interested stockholder;
- any transaction involving the corporation or direct or indirect majority-owned subsidiary of the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation or the subsidiary beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation or direct or indirect majority-owned subsidiary of the corporation.

In general, Section 203 of the DGCL defines an interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

The above-summarized provisions of our certificate of incorporation and bylaws and the above-summarized provisions of the DGCL could make it more difficult to acquire us by means of a tender offer, a proxy contest or

otherwise, or to remove incumbent officers and directors. These provisions are expected to discourage certain types of coercive takeover practices and takeover bids that our board of directors may consider inadequate and to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection of our ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because, among other things, negotiation of these proposals could result in an improvement of their terms.

Choice of Forum

Our Fourth Amended and Restated Certificate of Incorporation, as amended, provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the DGCL; or any action asserting a claim against us that is governed by the internal affairs doctrine. These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act, or any other claim for which the federal courts have exclusive jurisdiction. Our Fourth Amended and Restated Certificate of Incorporation, as amended, will further provide that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, subject to applicable law. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these provisions. Our exclusive forum provision will not relieve us of our duties to comply with the federal securities laws and the rules and regulations thereunder, and our stockholders will not be deemed to have waived our compliance with these laws, rules and regulations.

The provisions of the DGCL, our Fourth Amended and Restated Certificate of Incorporation, as amended, and our Third Amended and Restated Bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Limitation on Liability of Directors and Indemnification

Our certificate of incorporation limits the liability of our directors to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to us or our stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares as provided in Section 174 of the DGCL; or
- transaction from which the directors derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

Our bylaws provide that we will indemnify and advance expenses to our directors and officers to the fullest extent permitted by law or, if applicable, pursuant to indemnification agreements. They further provide that we may choose to indemnify our other employees or agents from time to time. Subject to certain exceptions and procedures, our bylaws also require us to advance to any person who was or is a party, or is threatened to be made a party, to any proceeding by reason of the person's service as one of our directors or officers all expenses incurred by the person in connection with such proceeding.

Section 145(g) of the DGCL and our bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our bylaws permit indemnification. We maintain a directors' and officers' liability insurance policy.

We entered into indemnification agreements with each of our directors and executive officers that provide, in general, that we will indemnify them to the fullest extent permitted by law in connection with their service to

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us or on our behalf and, subject to certain exceptions and procedures, that we will advance to them all expenses that they incur in connection with any proceeding to which they are, or are threatened to be made, a party.

At present, there is no pending litigation or proceeding involving any of our directors or officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Registration Rights

DaVita Supply Agreement. Concurrent with the signing of the Supply and Collaboration Agreement with DaVita, Inc. and issuance of the DaVita Warrant on June 19, 2023, the Company entered into a Registration Rights Agreement (“Registration Rights Agreement”) with DaVita, whereby the Company agreed, subject to DaVita’s delivery of the Ultrafiltration Services Approval (as defined in the Registration Rights Agreement), to register the resale of the shares of common stock issuable upon exercise of the DaVita Warrant (“Underlying Shares”) on a Form S-1 or Form S-3, if eligible, upon DaVita’s demand. Furthermore, subject to DaVita’s delivery of the Ultrafiltration Services Approval DaVita has “piggyback” registration rights allowing it to include its Underlying Shares in a registration effected by the Company for stockholders other than DaVita. The Company is responsible for all fees and expenses incident to the performance of or compliance with the Registration Rights Agreement borne by the Company whether or not any registrable securities are sold pursuant to a registration statement. The Registration Rights Agreement also contains customary indemnification provisions.

DESCRIPTION OF PREFERRED STOCK

We have authority to issue up to 40,000,000 shares of preferred stock, par value \$0.0001 per share. As of June 28, 2024, there were 127 shares of Series F Convertible Preferred Stock outstanding, convertible into 15,240 shares of common stock and 88 shares of Series J Convertible Preferred Stock outstanding, convertible into 62 shares of common stock.

Series F Convertible Preferred Stock. The certificate of designation for our Series F Convertible Preferred Stock contains an anti-dilution provision, which provision requires the lowering of the applicable conversion price, as then in effect, to the purchase price per share of common stock or common stock equivalents issued in the future. If the effective price per share on a common-stock equivalent basis in a future equity offering is lower than the then-current conversion price of the Series F Convertible Preferred Stock, then such conversion price shall be reduced to such lower price and additional shares of common stock will be issuable upon the conversion of the of the Series F Convertible Preferred Stock. To the extent the outstanding shares of Series F Convertible Preferred Stock become exercisable for additional shares of common stock, holders of our common stock will experience further dilution.

Series J Convertible Preferred Stock. Dividends on the Series J Convertible Preferred Stock shall be paid in-kind (PIK dividends) in additional shares of Series J Convertible Preferred Stock based on the stated value of \$25.00 per share at the dividend rate of 5.0% (the “Dividend Rate”). The PIK dividends will be paid on a quarterly basis for three (3) years following the Closing Date to holders of the Series J Convertible Preferred Stock of record at the close of business on October 31, January 31, April 30, and July 31 of each year (each a “Dividend Record Date”). PIK dividends on each share of Series J Convertible Preferred Stock shall be paid three business days after the applicable Dividend Record Date in additional fully paid and nonassessable, registered shares of Series J Convertible Preferred Stock in a number equal to the quotient obtained by dividing (A) the product obtained by multiplying (i) the Dividend Rate and (ii) the stated value of \$25.00 per share, by (B) the public offering price per Unit (equal to \$15.00).

We may issue any class of preferred stock in any series. Our board of directors has the authority to establish and designate series, and to fix the number of shares included in each such series and to determine or alter for each such series, such voting powers, designation, preferences, and relative participating, optional, or other rights and such qualifications, limitations or restrictions thereof. Our board of directors is not restricted in repurchasing or redeeming such stock while there is any arrearage in the payment of dividends or sinking fund installments. Our board of directors is authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. The number of authorized shares of preferred stock may be increased or decreased, but not below the number of shares thereof then outstanding, by the affirmative vote of the holders of a majority of the common stock, without a vote of the holders of the preferred stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of preferred stock.

Prior to issuance of shares of any series of preferred stock, our board of directors is required by Delaware law to adopt resolutions and file a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation fixes for each class or series the terms, preferences, conversion or other rights, voting powers, restrictions, limitations as to dividends or other distributions, qualifications and terms or conditions of redemption for each class or series. Any shares of preferred stock will, when issued, be fully paid and non-assessable.

For any series of preferred stock that we may issue, our board of directors will determine and the prospectus supplement relating to such series will describe:

- the purchase price, title and stated value of the preferred stock;
- the number of shares of the preferred stock offered, the liquidation preference per share and the offering price of the preferred stock;
- the dividend rate(s), period(s) or payment date(s) or method(s) of calculation applicable to the preferred stock;
- whether dividends are cumulative or non-cumulative and, if cumulative, the date from which dividends on the preferred stock will accumulate;

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- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for auction and remarketing, if any, for the preferred stock;
- the provisions for a sinking fund, if any, for the preferred stock;
- the provision for redemption, if applicable, of the preferred stock;
- any listing of the preferred stock on any securities exchange;
- the terms and conditions, if applicable, upon which the preferred stock will be convertible into common stock, including the conversion price or manner of calculation and conversion period;
- voting rights, if any, of the preferred stock;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs;
- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the class or series of preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of the preferred stock.

Delaware law provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our certificate of incorporation if the amendment would change the par value or, unless the certificate of incorporation then in effect provides otherwise, the number of authorized shares of such class or change the powers, preferences or special rights of such class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

DESCRIPTION OF DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities offered under a prospectus supplement may differ from the terms described below. Unless the context requires otherwise, whenever we refer to the indenture, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part, or will be incorporated by reference from, reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as “discount securities,” which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with “original issue discount,” or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement.

We will describe in the applicable prospectus supplement the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates on which the principal of the debt securities of the series is payable;
- the form of the debt securities of the series;
- the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;
- if the price (expressed as a percentage of the aggregate principal amount thereof) at which such debt securities will be issued is a price other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof, or if applicable, the portion of the principal amount of such debt securities that is convertible into another security or the method by which any such portion shall be determined;

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- the interest rate or rates, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- if applicable, the date or dates after which, or the period or periods during which, and the price or prices at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date or dates, if any, on which, and the price or prices at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- any and all terms, if applicable, relating to any auction or remarketing of the debt securities of that series and any security for our obligations with respect to such debt securities and any other terms which may be advisable in connection with the marketing of debt securities of that series;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depositary for such global security or securities;
- if applicable, the provisions relating to conversion or exchange of any debt securities of the series and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- if other than the full principal amount thereof, the portion of the principal amount of debt securities of the series which shall be payable upon declaration of acceleration of the maturity thereof;
- additions to or changes in the covenants applicable to the particular debt securities being issued, including, among others, the consolidation, merger or sale covenant;
- additions to or changes in the events of default with respect to the securities and any change in the right of the trustee or the holders to declare the principal, premium, if any, and interest, if any, with respect to such securities to be due and payable;
- additions to or changes in or deletions of the provisions relating to covenant defeasance and legal defeasance;
- additions to or changes in the provisions relating to satisfaction and discharge of the indenture;
- additions to or changes in the provisions relating to the modification of the indenture both with and without the consent of holders of debt securities issued under the indenture;
- the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars;
- whether interest will be payable in cash or additional debt securities at our or the holders' option and the terms and conditions upon which the election may be made;
- the terms and conditions, if any, upon which we will pay amounts in addition to the stated interest, premium, if any and principal amounts of the debt securities of the series to any holder that is not a "United States person" for federal tax purposes;
- any restrictions on transfer, sale or assignment of the debt securities of the series; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the indenture will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of our assets as an entirety or substantially as an entirety. However, any successor to or acquirer of such assets (other than any subsidiary of ours) must assume all of our obligations under the indenture or the debt securities, as appropriate.

Events of Default under the Indenture

Unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that we may issue:

- if we fail to pay any installment of interest on any series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by us in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if we fail to pay the principal of, or premium, if any, on any series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if we fail to observe or perform any other covenant or agreement contained in the debt securities or the indenture, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have

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offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies only if:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request,
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request; and
- the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;
- to comply with the provisions described above under “Description of Debt Securities—Consolidation, Merger or Sale;”
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to add to our covenants, restrictions, conditions or provisions such new covenants, restrictions, conditions or provisions for the benefit of the holders of all or any series of debt securities, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred upon us in the indenture;
- to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;
- to make any change that does not adversely affect the interests of any holder of debt securities of any series in any material respect;
- to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided above under “Description of Debt Securities—General” to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;
- to comply with the applicable procedures of the depository;
- to evidence and provide for the acceptance of appointment under any indenture by a successor trustee; or
- to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act.

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In addition, under the indenture, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless we provide otherwise in the prospectus supplement applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of any debt securities of any series;
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any series of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we provide otherwise in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indenture provides that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in the applicable prospectus supplement with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will impose no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate

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additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indenture and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements and free writing prospectuses, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities and may be issued in one or more series. Warrants may be issued independently or together with common stock, preferred stock or debt securities offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We have filed forms of the warrant agreements as exhibits to the registration statement of which this prospectus is a part. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, if any, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

In the applicable prospectus supplement, we will describe the terms of the series of warrants being offered, including, to the extent applicable:

- the title of such securities;
- the offering price or prices and aggregate number of warrants offered;
- the currency or currencies for which the warrants may be purchased;
- the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- the date on and after which the warrants and the related securities will be separately transferable;
- the minimum or maximum amount of such warrants which may be exercised at any one time;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at which, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which, and the currency in which, these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- the terms of any rights to force the exercise of the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;

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- a discussion of any material or special U.S. federal income tax considerations of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any; or
- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent in connection with the exercise of the warrant.

On receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed at the corporate trust office of the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable on such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements, and any claim, controversy or dispute arising under or related to the warrants or warrant agreements, will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee or depositary maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Global securities will be registered in the name of the depositary or its participants. Consequently, for global securities, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a global security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not legal holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities that are not issued in global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we or any applicable trustee or depositary will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we or any such trustee or depositary will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee or third party employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the legal holder, we have no further responsibility for the payment or notice even if that legal holder is required, under agreements with its participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture, or for other purposes. In such an event, we would seek approval only from the legal holder, and not the indirect holders, of the securities. Whether and how the legal holders contact the indirect holders is up to the legal holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form because the securities are represented by one or more global securities or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we issue to, deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, DTC, New York, New York, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "—Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and legal holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a legal holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued as a global security, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only as global securities, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;

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- an investor may not be able to pledge his or her interest in the global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in the global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in the global security, nor will we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in the global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in the global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, a global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own names, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The applicable prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and neither we nor any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- to or through a market maker other than on Nasdaq or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

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We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities offered by this prospectus, and any supplement thereto, will be passed upon for us by Honigman LLP, Kalamazoo, Michigan. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The financial statements as of December 2023 and 2022 and the years ended December 2023 and 2022, incorporated by reference in this prospectus have been so incorporated in reliance on the report of Baker Tilly US, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting. The report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus of any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including Nuwellis. The address of the SEC's website is <http://www.sec.gov>.

We maintain a website at www.nuwellis.com. Information contained in, or accessible through, our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We “incorporate by reference” certain documents that we have filed with the SEC into this prospectus, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is deemed to be part of this prospectus, except for any information superseded by information contained directly in this prospectus. This prospectus incorporates by reference:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on [March 11, 2024](#);
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on [May 8, 2024](#);
- our Current Reports on Form 8-K filed with the SEC on [February 6, 2024](#) and [March 26, 2024](#), [May 1, 2024](#), [May 29, 2024](#), [June 6, 2024](#), [June 10, 2024](#), and [June 26, 2024](#); and
- the description of our common stock in our registration statement on Form 10 filed with the SEC on [September 30, 2011](#), including [Exhibit 4.14](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

All documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any report or document that is not deemed filed under such provisions, (i) on or after the date of filing of the registration statement containing this prospectus and prior to the effectiveness of the registration statement and (ii) on or after the date of this prospectus until the earlier of the date on which all of the securities registered hereunder have been sold or the registration statement of which this prospectus is a part has been withdrawn, shall be deemed incorporated by reference in this prospectus and to be a part of this prospectus from the date of filing of those documents. Nothing in this prospectus shall be deemed to incorporate information furnished but not filed with the SEC pursuant to Item 2.02 or 7.01 of Form 8-K.

These documents may also be accessed on our website at www.nuwellis.com. Information contained in, or accessible through, our website is not a part of this prospectus. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and information regarding issuers that file electronically with the SEC.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all reports or documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those reports or documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address:

Nuwellis, Inc.
Attention: Nestor Jaramillo, Chief Executive Officer
12988 Valley View Road
Eden Prairie, MN 55344
Tel: (952) 345-4200

Any statements contained in a document incorporated by reference in this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus (or in any other subsequently filed document which also is incorporated by reference in this prospectus) modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed to constitute a part of this prospectus except as so modified or superseded.



NUWELLIS, INC.

469,340 Shares of Common Stock

PROSPECTUS SUPPLEMENT

Roth Capital Partners

July 24, 2024
