Filed pursuant to Rule 424(b)(5)
Registration Statement No. 333-268302

Prospectus Supplement
(To Prospectus dated November 21, 2022)

RENOVO | RX

Up to $3,723,029 of Shares of Common Stock

RenovoRx, Inc., a Delaware corporation ("RenovoRx," the "Company," "we," "us" or "our"), has entered into Capital on Demand™ Sales Agreement, dated November 14, 2025 (the "Sales Agreement") with JonesTrading Institutional Services LLC ("Jones"), relating to the offer and sale of shares of our common stock, par value $0.0001 per share ("common stock"), from time to time, offered by this prospectus supplement and the accompanying base prospectus. In accordance with the terms of the Sales Agreement, under this prospectus supplement and the accompanying base prospectus we may offer and sell shares of our common stock having an aggregate offering price of up to $3,723,029 from time to time through or to Jones, acting as agent or principal.

Our common stock is listed on the Capital Market tier of The Nasdaq Stock Market LLC ("Nasdaq") under the symbol "RNXT." The last reported sale price of our common stock on November 11, 2025 was $1.07 per share.

Sales of our common stock, if any, under this prospectus supplement may be made by any method permitted that is deemed an "at the market offering" as defined in Rule 415 under the Securities Act of 1933, as amended ("the Securities Act"). Jones is not required to sell any specific amount but will act as our sales agent and use commercially reasonable efforts to sell on our behalf the shares of common stock requested to be sold by us, consistent with its normal trading and sales practices, on mutually agreed terms between Jones and us. There is no arrangement for funds to be received in escrow, trust or similar arrangement.

Jones will be entitled to compensation at a commission rate of up to 3.0% of the gross sales price per share of common stock sold through it as sales agent pursuant to the Sales Agreement. In connection with the sale of shares of our common stock on our behalf, Jones will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Jones will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Jones with respect to certain liabilities, including liabilities under the Securities Act. See "*Plan of Distribution*" beginning on page S-11 regarding the compensation to be paid to Jones.

The aggregate market value of our outstanding common stock held by non-affiliates is $47,469,086 based on 36,649,916 shares of outstanding common stock, of which 1,225,225 shares are held by affiliates, and a per share price of $1.34, which was the closing sale price of our common stock as quoted on Nasdaq on October 6, 2025. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on the registration statement of which this prospectus supplement is a part in a public primary 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 $75.0 million. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus supplement under the accompanying base prospectus. As a result of the limitations of General Instruction I.B.6, and in accordance with the terms of the Sales Agreement, this prospectus supplement relates to the offer and sale of additional shares of our common stock having an aggregate offering amount of up to $3,723,029 from time to time through or to Jones.

***Investing in our securities is speculative and involves a high degree of risk*. See the section entitled "*Risk Factors*" commencing on page S-6 of this prospectus supplement and the accompanying base prospectus and the other documents that are incorporated by reference herein for a discussion of information that should be considered in connection with an investment in our securities.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is November 14, 2025.

Jones

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying base prospectus are part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the "SEC") utilizing a "shelf" registration process. 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 prospectus supplement describes the specific details regarding this offering and may add, update or change information contained in the accompanying base prospectus. The accompanying base prospectus, dated November 21, 2022, including the documents incorporated by reference therein, provides general information about us and our securities, some of 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, and Jones is not, making offers to sell or solicitations to buy our common stock 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.

If information in this prospectus supplement is inconsistent with the accompanying base prospectus or the information incorporated by reference with an earlier date, you should rely on this prospectus supplement. This prospectus supplement, together with the base prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying base prospectus and any free writing prospectus we have provided for use in connection with this offering, include all material information relating to this offering. We have not, and Jones has not, authorized anyone to provide you with different or additional information and you must not rely on any unauthorized information or representations. You should assume that the information appearing in this prospectus supplement, the accompanying base prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying base prospectus and any free writing prospectus we have provided for use in connection with this offering is accurate only as of the respective dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates. **You should carefully read this prospectus supplement, the accompanying base prospectus and the information and documents incorporated herein by reference herein and therein, as well as any free writing prospectus we have provided for use in connection with this offering, before making an investment decision. See "*Incorporation of Certain Documents by Reference*" and "*Where You Can Find More Information*" in this prospectus supplement and similar headings in the accompanying base prospectus.**

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.

Unless the context indicates otherwise, as used in this prospectus supplement, the terms "we," "us," "our," "RenovoRx" and the "Company" refer to RenovoRx, Inc., a Delaware corporation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The information in this prospectus supplement, the accompanying base prospectus and any related free writing prospectuses, together with any information incorporated by reference in this prospectus supplement and the accompanying base prospectus, contains "forward-looking statements" within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements other than statements of historical fact, including statements regarding our future operating results and financial position, our business strategy and plans, market growth, and our objectives for future operations, are forward-looking statements. These forward-looking statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

You can identify some of these forward-looking statements by words or phrases such as "may," "will," "could," "would," "expect," "anticipate," "aim," "estimate," "intend," "plan," "believe," "is/are likely to," "potential," "project," "target," "continue" or the negative of these terms or other similar expressions, although not all forward-looking statements may contain these words. Forward-looking statements are only predictions and are based largely on our current expectations and projections about future events and financial trends that we reasonably believe may affect our business, financial condition and results of operations. Although we believe that the expectations reflected in our forward-looking statements are reasonable, actual outcomes could differ materially from those projected or assumed in any of our forward-looking statements. Our future business, financial condition and results of operations, as well as any forward-looking statements, are subject to change given the inherent risks and uncertainties of market and industry conditions.

Forward-looking statements are neither predictions nor guarantees of future outcomes. Forward-looking statements present estimates and assumptions only as of the date on the cover of the document in which they are contained, and are subject to significant known and unknown risks, uncertainties and assumptions. Accordingly, you are cautioned not to place undue reliance on forward-looking statements, which speak only as of the dates on which they are made. Forward-looking statements include statements regarding, and important factors that could cause actual outcomes to differ materially from those stated or implied in the forward-looking statements include, but are not limited to, the matters summarized below:

- the sufficiency of our existing cash, cash equivalents, and investments to fund our future operating expenses and capital expenditure requirements, and statements regarding our ability to continue as a going concern despite our current findings to the contrary;
- our estimates regarding future revenue, expenses, anticipated capital requirements to fund our future operating expenses, and our need for additional financing;
- our ability to commercialize our RenovoCath device as a standalone product within its FDA-cleared field of use, including our ability to generate and grow revenues from our commercialization efforts;
- our anticipated use of our existing cash, cash equivalents, and investments;
- the ability of our clinical trials to demonstrate safety and efficacy of our product candidates and other positive results;
- the progress and focus of our current pivotal Phase III TIGeR-PaC trial, our PanTheR multi-center post-marketing registry trial, and potential future clinical trials;
- projections for the timing for enrollment of our clinical trials and our expectations relating to the timing of the provision of updates on, public announcements (if any) for interim or top line data from, and completion of our clinical trials (notably our ongoing Phase III TIGeR-PaC trial);
- our continued reliance on third parties to conduct clinical trials of our product candidates and for the manufacture of our product candidates;

- the beneficial characteristics, safety, efficacy, and therapeutic effects of our technology, devices and product candidates;
- our ability to advance product candidates into and successfully complete clinical trials;
- our ability to further develop and expand our therapy platform, both to use different chemotherapeutic agents, to include new indications, or to market our catheter on a standalone basis;
- our ability to obtain and maintain regulatory approval of our product candidates and the timing or likelihood of regulatory filings and approvals, including our expectation to seek special designations, such as orphan drug designation, for our product candidates for various diseases;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- our plans relating to commercializing our product candidates, if approved, including the geographic areas of focus and our potential and ability to successfully commercialize our product candidates and generate revenue;
- the implementation of our strategic plans for our business and product candidates;
- the expected potential benefits of strategic collaborations with third parties and our ability to attract collaborators with relevant and complementary expertise;
- our estimates of the number of patients in the United States who suffer from the diseases we target;
- our estimates of potential addressable market opportunities and our ability to successfully penetrate such market opportunities;
- the success of competing therapies or devices that are or may become available;
- developments relating to our competitors and our industry, including competing product candidates, therapies and devices;
- our plans relating to the further development and manufacturing of our devices and product candidates, including for additional indications which we may pursue;
- our plans and ability to obtain or protect intellectual property rights, including extensions of existing patent terms where available;
- the scope of protection we are able to establish and maintain for intellectual property rights, including our therapy platform and product candidates;
- our ability to successfully negotiate and enter into agreements with distribution, strategic and corporate partners;
- our potential and ability to successfully manufacture and supply our product candidates for clinical trials and for commercial use, if approved;
- our ability to retain the continued service of our key personnel and to identify, hire, and then retain additional qualified personnel;
- our ability to maintain compliance with the continuing listing requirements of Nasdaq;
- our expectations regarding the impact of major domestic and geopolitical events on our business; and
- the other forward-looking statements regarding our company and its prospects included or incorporated by reference in this prospectus supplement, including, without limitation, those under "*Risk Factors*," "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," and "*Business*" as such factors may be updated from time to time in our other filings with the SEC.

The foregoing does not represent an exhaustive list of matters that may be covered by the forward-looking statements contained herein or risk factors that we are faced with. Forward-looking statements necessarily involve risks and uncertainties, and our actual results could differ materially from those anticipated in the forward-looking statements due to a number of factors, including those set forth under "*Risk Factors*" and elsewhere contained or incorporated by reference in this prospectus supplement and the accompanying base prospectus. All written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained above and throughout this prospectus supplement and the accompanying base prospectus. Prior to investing in our common stock, you should read this prospectus supplement and the accompanying base prospectus, our filings incorporated by reference herein and the documents we have filed as exhibits to this registration statement of which this prospectus supplement and the accompanying base prospectus are part completely and with the understanding that our actual future results may be materially different from what we currently expect.

Except as required by law, we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events.

INDUSTRY AND MARKET DATA

Unless otherwise indicated, data concerning economic conditions, our industry, our markets and our competitive position are based on a variety of sources, including information from third-party industry analysts, publications, surveys and forecasts and our own estimates and research. These data involve a number of assumptions, estimates and limitations. Industry publications, surveys and forecasts and other public information generally indicate or suggest that their information has been obtained from sources believed to be reliable. None of the third-party industry data used in this prospectus supplement were prepared on our behalf. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "*Risk Factors*." These and other factors could cause results to differ materially from those expressed in these data.

TRADEMARKS

We own or have rights to trademarks or trade names that we use in connection with the operation of our businesses, our corporate names, logos and websites. We may make references to our trademarks and service marks, and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to may appear without ® or ™ or similar symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent possible 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, trademarks, or service marks to imply a relationship with, or an endorsement or sponsorship of us by, any other companies. All other trademarks and service marks are the property of their respective owners.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information appearing elsewhere or incorporated by reference in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein. Because it is only a summary, it does not contain all of the information that you should consider before investing in the shares offered hereby and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference in this prospectus supplement and the accompanying base prospectus. This summary contains forward-looking statements that involve risks and uncertainties, such as statements about our plans, objectives, expectations, assumptions, or future events. These statements involve estimates, assumptions, known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from any future results, performances or achievements expressed or implied by the forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" before you decide to invest in our common stock, you should also read the entire prospectus supplement and the accompanying base prospectus carefully, including "Risk Factors" beginning on page S-6, "Summary of Financial Information" beginning on page S-1, and the financial statements and related notes included or incorporated by reference in this prospectus supplement and the accompanying base prospectus.

Unless the context indicates otherwise, as used in this prospectus supplement, the terms "we," "us," "our," "RenovoRx" and the "Company" refer to RenovoRx, Inc., a Delaware corporation.

Overview

We are a commercial and clinical stage life sciences company offering **RenovoCath®**, a novel, U.S. Food and Drug Administration ("FDA")-cleared local drug delivery device, targeting high unmet medical needs, with a present focus on difficult to treat cancers. Our mission is to transform the lives of cancer patients by providing innovative solutions to enable targeted therapeutic delivery.

Our clinical stage lead product candidate is a novel drug-device combination product consisting of intra-arterial delivery of the chemotherapy gemcitabine via RenovoCath — we refer to our lead product candidate herein as "**IAG**." IAG is currently the subject of a Phase III clinical study (called the **TIGeR-PaC** study) for the treatment of locally advanced pancreatic cancer ("LAPC").

At the same time, we are commercializing RenovoCath for standalone use by interventional radiologists, oncologists, and other medical professionals who can use the device to treat patients within its FDA-cleared fields of use.

Our RenovoCath device utilizes our patented **Trans-Arterial Micro-Perfusion ("TAMP™")** therapy platform, which is designed to ensure targeted therapeutic delivery across the arterial wall near the tumor site to bathe the target tumor, while potentially minimizing a therapy's toxicities versus systemic intravenous therapy, including chemotherapy. Our novel approach to targeted treatment offers the potential for increased safety, tolerance, and improved efficacy. RenovoCath is indicated for temporary vessel occlusion in applications including arteriography, preoperative occlusion, and chemotherapeutic drug infusion. We hold a robust portfolio of 19 issued patents and 12 pending patents covering our TAMP technology.

Recent Developments

Commercialization of RenovoCath

For the past several years, we have focused our efforts on progressing IAG through clinical trials. However, based on organic demand from doctors in the field who have become familiar with our technology, in 2024, we made the decision to launch an effort to commercialize our RenovoCath delivery device as a standalone device within its FDA cleared uses. To accommodate increased need for RenovoCath supply, we expanded our relationship with our U.S.-based, primary third-party RenovoCath manufacturer, Medical Murray, Inc. We have begun to generate and grow our revenue through sales of RenovoCath devices. We are encouraged by the strong demand we are experiencing with RenovoCath and the resulting growth in RenovoCath sales revenue we have experienced to date. We have seen meaningful traction across a diverse group of medical institutions, including several high-volume, academic, and National Cancer Institute-designated centers, which we believe speaks to the growing confidence in our technology by our customers. While our pipeline of new customers continues to grow, existing customers that have made initial orders are now becoming consistent repeat customers.

We also expect additional commercial interest in RenovoCath from the cancer centers that have used RenovoCath in our ongoing TIGeR-PaC trial. We anticipate that this momentum may translate into additional commercial opportunities following the completion of TIGeR-PaC trial enrollment. In addition, in July 2025 we announced the commencement of a post-marketing registry trial related to RenovoCath, and the cancer centers participate in this study will purchase RenovoCath devices from us for use in the study.

Our goal is to significantly increase the revenue over time. For our commercial efforts, we remain focused on executing with discipline and are doing so by targeting top high-volume cancer treatment centers, driving organic demand. Our revenue results to date have been generated without using a dedicated sales and marketing team, allowing our commercial efforts to be highly capital-efficient. To accommodate demand, in August 2025 we hired a full-time head of sales and have since added two additional regional sales managers and plan to add a marketing director by the end of 2025 to drive physician engagement, all with a focus on maximizing effort while keeping costs to a minimum.

We will continue to gather important data about our market (such as sales cycles, activation times, individual customer preferences and other commercial matters), as we seek to grow our customer base, fulfill repeat RenovoCath orders and position ourselves for commercial growth over the long term. In parallel, we have evaluated and may continue to evaluate potential collaborations with larger organizations who have established sales forces to accelerate our RenovoCath sales efforts.

Based on our internal assumptions, we believe that our initial total U.S. addressable market based solely on the initial clinical interest we have received for RenovoCath could represent an estimated $400 million peak annual U.S. sales opportunity. Beyond historical RenovoCath usage, RenovoRx commercial efforts are already indicating the potential for RenovoCath adoption for the treatment of other solid tumors. This serves as the basis for our belief in the potential for a several-billion-dollar TAM as we expand into additional cancer indications.

Readers are advised that our RenovoCath commercialization efforts are new, and we may not be able to achieve revenue growth on par with what have experienced to date for a variety of reasons. Thus, our efforts remain focused on the longer term. Moreover, revenue recognition under generally accepted accounting principles requires subjective judgments to be made by our management and could otherwise be complex and create uncertainties, including uncertainties arising from varying terms of sale we may offer to different customers. We may also be required to defer recognition of revenues until certain conditions are met.

Our Ongoing Pivotal Phase III Trial for IAG

In parallel to our RenovoCath commercialization efforts, we are completing enrollment in our ongoing Phase III randomized multi-center TIGeR-PaC clinical trial to investigate IAG for the treatment of LAPC. This trial is being conducted under a U.S. Investigational New Drug (“IND”) application that is regulated by the FDA’s 21 CFR 312 pathway. IAG has received Orphan Drug Designation for pancreatic cancer and bile duct cancer, which provides 7 years of market exclusivity upon approval by the FDA. The current protocol and statistical analysis plan for the Phase III TIGeR-PaC trial requires 114 randomized patients, with 86 events, or deaths, necessary to complete the final analysis.

The 52nd event in our trial occurred during the quarter ended June 30, 2025, triggering the pre-planned second interim analysis and review by the independent Data Monitoring Committee (DMC) for the trial, which happened in August 2025. The Data Monitoring Committee reviews the trial data and makes recommendations to our company, mainly whether the data support, form a third-party point of view, continuing the trial to completion. The TIGeR-PaC independent DMC has concluded its review in August 2025 and recommended that we continue with the trial. We believe the independent DMC’s recommendation is an expression of confidence in the potential for a positive outcome in the trial overall. The second interim review of data reinforces that the trial should proceed as planned to the final analysis as we seek to potentially demonstrate the safety and superiority of IAG for the treatment of LAPC as compared to stands of care. With a view towards preserving the integrity of the TIGeR-PaC trial for FDA purposes, and following our review of general FDA guidance, discussions with the independent DMC, and consultation with our regulatory advisors, we have decided to defer publishing the detailed data from the second interim analysis. We will revisit publishing the actual second interim data, most likely upon completion of the study as is common for pivotal Phase III trials. We currently expect to complete enrollment for the TIGeR-PaC trial in early 2026, with final data anticipated in 2027. We may also evaluate the safety of RenovoCath for the delivery of therapeutic agents as a potential therapy in other indications.

Launch of the Multi-Center Post-Marketing Registry Study to Evaluate Chemotherapy Delivered by RenovoCath Device to Solid Tumors

In July 2025, we launched an RR5 Post-Marketing Registry Study of RenovoCath (NCT06805461) (which we refer to as the RR5 Study). The initiation of this multi-center post-marketing registry study demonstrates our commitment to evaluating potential expansions of the use of RenovoCath for chemotherapy-delivery in several types of solid tumors. A registry study, sometimes called a post-approval study, is a type of clinical study that involves collecting data on the long-term use and performance of a medical device, in this case RenovoCath, after it has been cleared for market by the FDA. These trials can serve as critical tools for understanding a product's safety and effectiveness in a real-world setting and can provide valuable insights into long-term effectiveness, patient outcomes, and additional safety information that may emerge years after implantation or extended use. The RR5 Study is a registry study designed to evaluate long-term safety and survival outcomes for patients diagnosed with solid tumors that are treated using the RenovoCath device for targeted chemotherapy delivery. The study aims to enroll adult patients who have been diagnosed with solid tumors and treated using the RenovoCath device. The study will capture real-world data on the utilization of RenovoCath and generate additional safety information across a broader range of solid tumors. Additionally, this data is expected to be used to inform future clinical trial designs. In September 2025, we announced that the first registry-eligible patient procedure in the RR5 Study was successfully completed at the University of Vermont Cancer Center. We also announced that Baptist Health Miami Cancer Institute and University of Pittsburgh Medical Center have joined the University of Vermont Cancer Center as participating clinical sites.

Our Competition

The oncology, biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies and strong competition. While we believe that our knowledge, leadership, experience, scientific resources, intellectual property, regulatory barriers, and the advanced stage of our clinical development provide us with competitive advantages, we may face competition from major pharmaceutical companies, specialty pharmaceutical companies, and biotechnology companies, worldwide. Many potential competitors have substantially greater scientific, research, financial, technical, and/or human resources than we do.

Many companies are active in the oncology market both in terms of commercially marketed products and products in development that could potentially compete with our products and product candidates for the treatment of solid tumors. Any product candidates that we successfully develop and commercialize may compete directly with approved and/or new therapies that may be approved in the future. Our competitors may also obtain FDA or foreign regulatory approval for their products more rapidly than we may obtain approval for our product candidates, which could result in our competitors establishing a strong market position prior to us entering the market. Key competitive factors affecting the success of our product candidates, if approved, are likely to be their safety, efficacy, convenience, price, and the availability of reimbursement from government and other third-party payors. Many companies are developing new therapeutics, and we cannot predict what the standard of care will be as our product candidate progresses through clinical development.

We are aware of a number of companies in Phase I and Phase II clinical trials for the treatment of LAPC including one interventional company, TriSalus Life Sciences, as well as an upcoming ablative radiation study in locally advanced pancreatic cancer. Many of our competitors have substantially greater financial, technological, research and development, marketing and personnel resources. In addition, some of our competitors have considerable experience in conducting clinical trials, regulatory, manufacturing and commercialization capabilities. Our competitors may develop alternative treatment methods, or achieve earlier product development, in which case the likelihood of us achieving meaningful revenues or profitability will be substantially reduced.

Research and Development Pipeline

While the oncology field has made progress with the treatment of cancers over the past few decades, the limited effectiveness of chemotherapy accompanied by debilitating side effects remains a barrier to the success of standard of care treatment. The common objective in chemotherapy treatment innovation is to enhance the dosing of the drug, while minimizing systemic toxicity. The standard of care for most cancers is systemic (intravenous) chemotherapy, which delivers chemotherapy throughout the body.

Our proprietary TAMP therapy platform is designed to ensure precise therapeutic delivery across the arterial wall near the tumor site to bathe the target tumor, while potentially minimizing a therapy's toxicities versus systemic intravenous therapy. Our novel approach to targeted treatment offers the potential for increased safety, tolerance, and improved efficacy. Our Phase III lead clinical development stage product candidate is IAG, a novel oncology drug-device combination product. It is being investigated under a U.S. investigational new drug application that is regulated by the FDA's 21 CFR 312 pathway.

IAG utilizes RenovoCath, which is indicated for temporary vessel occlusion in applications including arteriography, preoperative occlusion, and chemotherapeutic drug infusion. IAG is currently being evaluated for the treatment of LAPC by the Center for Drug Evaluation and Research (the drug division of FDA) ("CDER"). The TAMP therapy platform is currently being evaluated in the Phase III TIGeR-PaC clinical trial in LAPC. Depending on our clinical progress with IAG and our RenovoCath commercial efforts, we may look to expand our development pipeline into additional cancer tumors and explore new commercial and clinical business development opportunities with our therapeutic technology. IAG received FDA Orphan Drug Designation for pancreatic cancer and bile duct cancer which provides 7 years of market exclusivity upon New Drug Application approval.

RenovoCath Advantages

We believe that RenovoCath offers particular advantages versus the standard of care of IV systemic chemotherapy to both oncology patients and physicians which offers us potential competitive advantages.

RenovoCath Patient Experience	Other Patient Experience
● 8 treatments over 4-months (2 monthly hospital visits); 20-minute infusion; approximately 90-minute outpatient procedure (shorter for subsequent procedures)	● Traditional systemic chemotherapy gemcitabine / Abraxane: 12 hospital/clinic visits over 4-month period
● Patients not put under general anesthesia (only conscious sedation for comfort)	● Patients put under general anesthesia
● More time at home with family	● Less time at home with family; other technologies require overnight stays
	● Systemic chemo associated with days of lasting side effects

RenovoCath Physician Experience	Other Physician Experience
● Easy to learn and quick procedure for interventional radiologists / oncologists	● Majority of novel interventional technologies require large sales/physician proctor effort with training courses and/or on-site support for every procedure
● Transferrable techniques utilized in liver directed therapies resulting in fast learning curve for physicians	
● Physicians demonstrate expertise after 2-3 proctored procedures and are able to train their colleagues	

Corporate Information

We were incorporated under the laws of the State of Delaware in December 2012. Our principal executive office is located at 2570 West El Camino Real, Suite 320, Mountain View, CA 94040 and our telephone number is (650) 284-4433. Our website is https://renovorx.com/. Information contained on, or available through, our website does not constitute part of, and is not deemed incorporated by reference into, this prospectus supplement and the accompanying base prospectus, and investors should not rely on such information in deciding whether to purchase shares of our common stock.

THE OFFERING

Common stock offered by us	Shares of our common stock, par value $0.0001 per share, having an aggregate offering price of up to $3,723,029.
Common stock to be outstanding immediately after this offering	Up to 40,129,382 shares of our common stock, assuming sales of 3,479,466 shares of our common stock in this offering at a public offering price of $1.07 per share, which was the last reported sale price per share of our common stock on Nasdaq on November 11, 2025. The actual number of shares of our common stock issued will vary depending on the sales prices in this offering.
Manner of offering	"At the market offering" as defined in Rule 415(a)(4) under the Securities Act that may be made from time to time through or to Jones, acting as agent or principal. See "*Plan of Distribution*" on page S-11 in this prospectus supplement.
Use of proceeds	We intend to use the net proceeds for working capital and general corporate purposes, including continued progression of our Phase III TIGeR-PaC study and the continued development and execution of commercial sales and marketing activities for RenovoCath as a standalone device. See "*Use of Proceeds*" on page S-8 in this prospectus supplement.
Risk factors	***Investing in our securities is speculative and involves a high degree of risk.*** See "Risk Factors" beginning on page S-6 of this prospectus supplement and in the documents referred to therein and incorporated by reference in this prospectus supplement and the accompanying base prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Nasdaq symbol	"RNXT"

The number of shares of our common stock to be outstanding after this offering is based on 36,649,916 shares of our common stock outstanding as of November 11, 2025, and excludes as of such date:

- 4,364,890 shares reserved for issuance upon the exercise of outstanding stock options and restricted stock units at a weighted average exercise price of $1.54 per share;
- 25,081,784 shares reserved for issuance upon the exercise of outstanding warrants at a weighted average exercise price of $2.39 per share; and
- 375,598 shares of common stock reserved for future issuance under our 2021 Omnibus Equity Incentive Plan.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise or conversion of the outstanding options or warrants described above.

RISK FACTORS

Investing in our securities is speculative and involves a high degree of risk. *Before deciding whether to invest in our securities, you should carefully consider the risk factors we describe in this prospectus supplement and the accompanying base prospectus, in addition to the risks and uncertainties discussed above under "Cautionary Note Regarding Forward-Looking Statements," together with the risk factors described in our Annual Report on Form 10-K for the year ended December 31, 2024, our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025 and September 30, 2025, and all other documents incorporated by reference in this prospectus supplement. Additional risks and uncertainties not presently known to us or that we currently consider immaterial could also adversely affect us. In addition, you should consider the following risks relevant to this offering.*

Risks Related to This Offering

The actual number of shares we will issue under the Sales Agreement, at any one time or in total, is uncertain.

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to Jones at any time throughout the term of the Sales Agreement. The number of shares that are sold by Jones after delivering a placement notice will fluctuate based on the market price of our common stock during the sales period and limits we set with Jones. Because the price per share of each share sold will fluctuate based on the market price of our common stock during the sales period, it is not possible at this stage to predict the number of shares that will be ultimately issued.

The common stock offered hereby will be sold in "at-the-market offerings," and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and so they may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and numbers of shares sold in this offering. In addition, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

We have broad discretion in the use of the net proceeds from this offering and our existing cash and may invest or spend the proceeds in ways with which you do not agree and in ways that may not yield a return on your investment.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "*Use of Proceeds*," and you will be relying on the judgment of our management regarding such application. You will not have the opportunity, as part of your investment decision, to assess whether the net proceeds are being used appropriately. Our management might not apply the net proceeds or our existing cash in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering or our existing cash and cash equivalents in ways that enhance stockholder value, we may fail to achieve expected business and financial results, which could cause our stock price to decline. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

If you purchase our common stock in this offering, you may experience immediate and substantial dilution.

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding at the time of sale. Assuming that an aggregate of 3,479,466 shares of our common stock are sold at an assumed offering price of $1.07 per share, the last reported sale price of our common stock on Nasdaq on November 11, 2025, for aggregate gross proceeds of $3,723,029, and after deducting commissions and estimated offering expenses payable by us, new investors in this offering would experience immediate dilution of $0.78 per share, representing the difference between our as adjusted net tangible book value per share as of September 30, 2025 of $0.29, after giving effect to this offering, and the assumed offering price.

This dilution is due to the substantially lower price paid by some of our investors who purchased shares prior to this offering as compared to the price offered to the public in this offering and the exercise of stock options granted to our employees, directors and consultants. In addition, we have a significant number of stock options. The exercise of any of the outstanding options would result in further dilution. As a result of the dilution to new investors purchasing shares in this offering, new investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. Further, because we expect we will need to raise additional capital to fund our future activities, we may in the future sell substantial amounts of common stock or securities convertible into or exchangeable for common stock.

If we issue equity securities in the future, your ownership in us could be diluted.

Any issuance of equity we may undertake in the future to raise additional capital could cause the price of our common stock to decline and result in significant dilution for holders of our common stock. For example, from October 1, 2024 through September 30, 2025, we have issued 11,523,810 shares of common stock through equity financings, 1,010,085 shares of our common stock related to warrant exercises and 114,682 shares of our common stock related to restricted stock units and stock option exercises. In addition, the vesting of restricted stock units and the exercise of outstanding stock options and warrants may result in further dilution of your investment.

We do not anticipate declaring any cash dividends on our common stock, which may adversely impact the market price of our stock.

We have never declared or paid any cash dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future. The payment of dividends, if any, in the future is within the discretion of our board of directors and will depend on our earnings, capital requirements and financial condition and other relevant facts. We currently intend to retain all future earnings, if any, to finance the development and growth of our business. If we do not pay dividends, our stock may be less valuable to you because a return on your investment will only occur if our stock price appreciates.

Sales of a significant number of shares of our common stock in the public markets, or the perception that such sales could occur, could depress the market price of our common stock.

Sales of a substantial number of shares in the public markets, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities. We have agreed, without the prior written consent of Jones, and subject to certain exceptions set forth in the Sales Agreement, not to sell or otherwise dispose of any common stock or securities convertible into or exchangeable for shares of common stock, warrants or any rights to purchase or acquire common stock during the period beginning on the first trading day immediately prior to the delivery of any placement notice delivered by us to Jones and ending on the first trading day immediately following the final settlement date with respect to the shares sold pursuant to such notice. We have further agreed, subject to certain exceptions set forth in the Sales Agreement, not to sell or otherwise dispose of any common stock or securities convertible into or exchangeable for shares of common stock, warrants or any rights to purchase or acquire common stock in any other "at the market offering" or continuous equity transaction prior to the termination of the Sales Agreement with Jones. Therefore, it is possible that we could issue and sell additional shares of our common stock in the public markets. We cannot predict the effect that future sales of our common stock would have on the market price of our common stock.

We have a limited number of authorized shares of our common stock available for issuance which may limit our ability to issue securities in connection with capital raises, including this offering, for acquisitions or strategic partnerships or as compensation to our employees and directors in the future, unless we obtain stockholder approval to amend our amended articles of incorporation, referred to herein as our amended and restated certificate of incorporation. Our inability to issue shares of our common stock could materially adversely affect our business and strategy.

We have historically used our shares of common stock to raise capital, consummate acquisitions and compensate our employees and directors. We are currently authorized to issue 250,000,000 shares of common stock. As of November 11, 2025, 36,649,916 shares of common stock were outstanding. Additionally, as of November 11, 2025, there were 25,081,784 shares of common stock issuable upon exercise of outstanding warrants, 4,364,890 shares of common stock issuable upon exercise of outstanding stock options, and no shares of common stock issuable upon vesting of restricted stock units. We may not be able to offer and sell the total amount under the Sales Agreement and this prospectus supplement, nor be able to continue issuing securities to meet our business objectives, unless we increase the number of shares we are authorized to issue. There can be no assurance that we will elect to seek stockholder approval to increase our authorized shares of common stock under our amended and restated certificate of incorporation or, if we do, that we will be able to secure the necessary stockholder approval to increase our authorized shares of common stock under our amended and restated certificate of incorporation. Our inability to issue shares of our common stock could materially adversely affect our business and strategy.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sale proceeds of up to $3,723,029 from time to time. The amount of proceeds from this offering will depend on the number of shares of our common stock sold in this offering and the price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the Sales Agreement with Jones as a source of financing. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time.

We intend to use the net proceeds for working capital and general corporate purposes, including continued progression of our Phase III TIGeR-PaC study and the continued development and execution of commercial sales and marketing activities for RenovoCath as a standalone device. The amounts and timing of these expenditures, as well as the specific uses thereof, are not presently determinable and will depend on numerous factors, including the status of our product development efforts, sales and marketing activities, technological advances, amount of cash generated or used by our operations and competition. Our management will have broad discretion to allocate the net proceeds, if any, we receive in connection with securities offered pursuant to this prospectus supplement for any purpose. Pending such use, we intend to invest the net proceeds in interest-bearing investment-grade securities or government securities.

DILUTION

If you invest in our common stock, your interest will be immediately diluted to the extent of the difference between the price you pay per share and the adjusted net tangible book value per share of our common stock after this offering. "Net tangible book value" is total assets minus the sum of liabilities and intangible assets. "Net tangible book value per share" is net tangible book value divided by the total number of shares of common stock outstanding.

Our net tangible book value on September 30, 2025 was approximately $8.1 million, or $0.22 per share. As of September 30, 2025, our pro forma net tangible book value was approximately $11.5 million or $0.29 per share of our common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities.

After giving effect to the above-mentioned pro forma adjustments and the sale of shares of our common stock in the aggregate amount of $3,723,029 in this offering at an assumed offering price of $1.07 per share, which was the last reported sale price of our common stock on Nasdaq on November 11, 2025, and after deducting estimated offering commissions and expenses payable by us, our net tangible book value as of September 30, 2025 would have been approximately $11.5 million or $0.29 per share of our common stock. This represents an immediate increase in net tangible book value of $0.07 per share to our existing stockholders and an immediate dilution in net tangible book value of $0.78 per share to investors participating in this offering. The following table illustrates this dilution per share to investors participating in this offering:

Assumed offering price per share			$	1.07
Net tangible book value per share as of September 30, 2025	$	0.22		
Increase in net tangible book value per share	$	0.07		$
Pro forma as adjusted net tangible book value per share after giving effect to this offering			$	0.29
Dilution per share to new investors purchasing common stock in this offering			$	0.78

The discussion and table above assume, for illustrative purposes, that an aggregate of approximately 3,479,466 shares of our common stock are sold at a price of $1.07 per share, the last reported sale price of our common stock on Nasdaq on November 11, 2025, for aggregate gross proceeds of approximately $3,723,029. However, the shares sold in this offering, if any, will likely be sold from time to time at various prices.

The number of shares of our common stock to be outstanding after this offering is based on 36,649,916 shares of our common stock outstanding as of September 30, 2025, and excludes as of such date:

- 4,364,890 shares reserved for issuance upon the exercise of outstanding stock options and restricted stock units at a weighted average exercise price of $1.54 per share;
- 25,081,784 shares reserved for issuance upon the exercise of outstanding warrants at a weighted average exercise price of $2.39 per share; and
- 375,598 shares of common stock reserved for future issuance under our 2021 Omnibus Equity Incentive Plan.

To the extent that any of our outstanding options or warrants are exercised or restricted stock units vest, we grant additional options or other awards under our stock incentive plans or issue additional warrants or we issue additional shares of common stock in the future, investors may experience further dilution.

DESCRIPTION OF SECURITIES WE ARE OFFERING

General

The following description is not complete and may not contain all the information you should consider before investing in our securities. For a more detailed description of these securities, you should read Sixth Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws which are exhibits to our Annual Report on Form 10-K for the year ended December 31, 2024, as well as by the applicable provisions of the Delaware General Corporation Law ("DGCL"). Accordingly, for a description of the terms of any series of securities, you must refer to both this prospectus supplement relating to that series and the description of the securities described in the base prospectus. To the extent the information contained in this prospectus supplement differs from the base prospectus, you should rely on the information in this prospectus supplement.

Our authorized capital stock consists of 265,000,000 shares, $0.0001 par value per share, of which:

- 250,000,000 shares are designated as common stock; and
- 15,000,000 shares are designated as preferred stock.

Our authorized but unissued shares of common stock and preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange or automated quotation system on which our securities may be listed or traded in the future.

Common Stock

As of November 11, 2025, there were 36,649,916 shares of common stock issued and outstanding. In addition, there were 25,081,784 shares of common stock issuable upon exercise of outstanding warrants, 4,364,890 shares of common stock issuable upon exercise of outstanding stock options, and no shares of common stock issuable upon vesting of restricted stock units.

Voting Rights

Holders of our common stock are entitled to one vote per share on matters to be voted on by stockholders and also are entitled to receive such dividends, if any, as may be declared from time to time by our board of directors in its discretion out of funds legally available therefor. Holders of our common stock have exclusive voting rights for the election of our directors and all other matters requiring stockholder action, except with respect to amendments to our certificate of incorporation that alter or change the powers, preferences, rights or other terms of any outstanding preferred stock if the holders of such affected series of preferred stock are entitled to vote on such an amendment or filling vacancies on the board of directors.

Liquidation and Dissolution

Upon our liquidation or dissolution, the holders of our common stock will be entitled to receive pro rata all assets remaining available for distribution to stockholders after payment of all liabilities and provision for the liquidation of any shares of preferred stock at the time outstanding.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. 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 any series of preferred stock that we may designate and issue in the future.

Dividends

Holders of common stock are entitled to share ratably in any dividends declared by our board of directors, if any, subject to any preferential dividend rights of any outstanding preferred stock. Dividends consisting of shares of common stock may be paid to holders of shares of common stock. We do not intend to pay cash dividends in the foreseeable future.

PLAN OF DISTRIBUTION

We have entered into a Capital on Demand™ Sales Agreement with Jones under which we may offer and sell from time to time shares of our common stock through or to Jones, acting as agent or principal. Sales of shares of our common stock, if any, under this prospectus supplement and the accompanying base prospectus will be made by any method deemed to be an "at the market offering" as defined in Rule 415 promulgated under the Securities Act.

Each time we wish to issue and sell shares of common stock under the Sales Agreement, we will notify Jones of the number of shares to be issued, the dates on which such sales are anticipated to be made, any limitation on the number of shares to be sold in any one day and any minimum price below which sales may not be made. Once we have so instructed Jones, unless Jones declines to accept the terms of such notice, Jones has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Jones under the Sales Agreement to sell shares of our common stock are subject to a number of conditions that we must meet. The settlement of sales of shares between us and Jones is generally anticipated to occur on the first trading day following the date on which the sale was made. Sales of shares of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and Jones may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Jones a commission of up to 3% of the aggregate gross proceeds we receive from each sale of shares of our common stock. Because there is no minimum offering amount required as a condition of this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In addition, we have agreed to reimburse Jones for the fees and disbursements of its counsel in an amount not to exceed (a) $60,000, payable upon execution of the Sales Agreement, and (b) $7,500 per calendar quarter thereafter pursuant to the terms of the Sales Agreement. We estimate that the total expenses for the offering, excluding any commissions or expense reimbursement payable to Jones under the terms of the Sales Agreement, will be approximately $170,000. The remaining sale proceeds, after deducting any other transaction fees, will equal our net proceeds from the sale of such shares.

Jones will provide written confirmation to us before the open on Nasdaq on the day following each day on which shares of our common stock are sold under the Sales Agreement. Each confirmation will include the number of shares sold on that day, the aggregate gross proceeds of such sales and the proceeds to us.

In connection with the sale of shares of our common stock on our behalf, Jones will be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of Jones will be deemed to be underwriting commissions or discounts. We have agreed to indemnify Jones against certain civil liabilities, including liabilities under the Securities Act. We have also agreed to contribute to payments Jones may be required to make in respect of such liabilities.

The offering of shares of our common stock pursuant to the Sales Agreement will terminate upon the termination of the Sales Agreement as permitted therein. We and Jones may each terminate the Sales Agreement at any time upon three days' or five days' prior notice, as applicable.

This summary of the material provisions of the Sales Agreement does not purport to be a complete statement of its terms and conditions.

Jones and its affiliates may in the future provide various investment banking, commercial banking, financial advisory and other financial services for us and our affiliates, for which services they may in the future receive customary fees. In the course of its business, Jones may actively trade our securities for its own account or for the accounts of customers, and, accordingly, Jones may at any time hold long or short positions in such securities. We have agreed with Jones that for a period of twelve (12) months after execution of the Sales Agreement, Jones shall have the right to participate as a co-underwriter or placement agent to us solely with respect to any equity underwriting or financing of our company, with minimum investment banking economics of 25%.

This prospectus supplement and the accompanying base prospectus in electronic format may be made available on a website maintained by Jones, and Jones may distribute the prospectus supplement and the accompanying base prospectus electronically.

LEGAL MATTERS

The validity of the issuance of the common stock offered by this prospectus supplement will be passed upon for us by Ellenoff Grossman & Schole LLP, New York, New York. Jones is being represented in connection with this offering by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York.

EXPERTS

The financial statements of RenovoRx, Inc., as of and for the year ended December 31, 2024, incorporated by reference in this prospectus supplement, have been audited by Frank, Rimerman + Co. LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

The financial statements of RenovoRx, Inc., as of and for the year ended December 31, 2023, incorporated in this prospectus supplement by reference to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, have been so incorporated in reliance on the report of Baker Tilly US, LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying base prospectus are part of the registration statement on Form S-3 that we have filed with the SEC under the Securities Act and does not contain all the information set forth or incorporated by reference 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 to the exhibits to the reports or other documents incorporated by reference in this prospectus supplement, for a copy of such contract, agreement or other document. We file annual, quarterly and periodic reports, proxy statements and other information with the SEC, using its EDGAR system. The SEC provides free public access, through its website, to items publicly filed in the EDGAR system, including our items. The address of the SEC's website is http//www.sec.gov.

We also maintain a website at *https://renovorx.com/*. You may access these materials at our website free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained in, or that can be accessed through, our website is not a part of, and is not incorporated into, this prospectus supplement.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are "incorporating by reference" in this prospectus supplement certain documents we have filed or will file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (1) after the date of the initial registration statement, as amended, and prior to effectiveness of the registration statement, and (2) after the date of this prospectus supplement and prior to the termination of this offering, from their respective filing dates (other than any portions thereof, which under the Exchange Act, and applicable SEC rules, are not deemed "filed" under the Exchange Act). Such information will automatically update and supersede the information contained in this prospectus supplement and the documents listed below:

1. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on April 1, 2025;

2. Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, June 30, 2025 and September 30, 2024 filed with the SEC on May 15, 2025, August 14, 2025 and November 13, 2025, respectively;

3. Our Definitive Proxy Statement filed with the SEC on April 30, 2025 (but only with respect to information required by Part III of our Annual Report on Form 10-K for the year ended December 31, 2024);

4. Our Current Reports on Form 8-K filed with the SEC on February 10, 2025, April 1, 2025, May 15, 2025, June 25, 2025, August 14, 2025 and November 13, 2025 (excluding any information therein disclosed under Items 2.02 or 7.01 or any corresponding information furnished under Item 9.01 or included as an exhibit); and

5. The description of our shares of common stock contained in our registration statement on Form 8-A, filed with the SEC on August 11, 2021.

In addition, all documents and/or reports that we file with the SEC pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act subsequent to the date of the registration statement of which this prospectus supplement and the accompanying base prospectus are a part, and prior to the termination or completion of any applicable offering of securities under this prospectus supplement or the filing of a post-effective amendment to such registration statement that indicates that all securities offered under this prospectus supplement have been sold, or that deregisters all securities then remaining unsold, will be deemed to be incorporated herein by reference and to be a part hereof from the date of filing of such documents.

Notwithstanding the foregoing, none of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K, or any corresponding information furnished under Item 9.01 or included as an exhibit, that we may from time to time furnish to the SEC, will be incorporated by reference in, or otherwise included in, this prospectus supplement, except as otherwise expressly set forth in the relevant document. Subject to the foregoing, all information appearing in this prospectus supplement is qualified in its entirety by the information appearing in the documents incorporated by reference.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

RenovoRx, Inc.
Attn: Investor Relations
2570 W. El Camino Real, Ste. 320
Mountain View, CA 94040
(650) 284-4433

Up to $3,723,029 of Shares of Common Stock

PROSPECTUS SUPPLEMENT

The date of this prospectus supplement is November 14, 2025.

PROSPECTUS

$50,000,000
Common Stock
Preferred Stock
Debt Securities
Purchase Contracts
Units

We may offer and sell the securities identified above from time to time in one or more offerings. This prospectus provides you with a general description of the securities.

Each time we offer and sell securities, we will provide a supplement to this prospectus that contains specific information about the offering and the amounts, prices and terms of the securities. The supplement may also add, update or change information contained in this prospectus with respect to that offering. You should carefully read this prospectus and the applicable prospectus supplement, together with any documents we incorporated by reference, before you invest in any of our securities. The aggregate offering price of the securities we sell pursuant to this prospectus will not exceed $50,000,000.

We may offer and sell the securities described in this prospectus and any prospectus supplement to or through one or more underwriters, dealers and agents, or directly to purchasers, or through a combination of these methods. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement between or among them will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. See the sections of this prospectus entitled "About this Prospectus" and "Plan of Distribution" for more information. No securities may be sold without delivery of this prospectus and the applicable prospectus supplement describing the method and terms of the offering of such securities.

Our common stock is listed on The Nasdaq Capital Market under the symbol "RNXT." On November 9, 2022, the last reported sale price of our common stock on The Nasdaq Capital Market was $1.93 per share.

Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of the aggregate market value of our voting and non-voting common equity held by non-affiliates in any 12-month period as long as the aggregate market value of our outstanding voting and non-voting common equity held by non-affiliates is less than $75.0 million. Calculated in accordance with General Instruction I.B.6 of Form S-3, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately $18.5 million based upon 6,859,411 shares of our outstanding stock held by non-affiliates at the per share price of $2.70 on September 12, 2022, which was the highest closing price within the last 60 days prior to the date of this filing. One-third of our public float, calculated in accordance with General Instruction I.B.6 of Form S-3 as of September 12, is equal to approximately $6 million. We have not offered or sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus.

INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE "RISK FACTORS" BEGINNING ON PAGE 4 OF THIS PROSPECTUS AND IN ANY SIMILAR SECTION CONTAINED IN OR INCORPORATED BY REFERENCE HEREIN OR IN THE APPLICABLE PROSPECTUS SUPPLEMENT CONCERNING FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN OUR SECURITIES.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2022.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the "SEC") using a "shelf" registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings as described in this prospectus. Each time that we offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering and, to the extent appropriate, any updates to the information about us contained in this prospectus. 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 may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you should rely on the prospectus supplement. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of the aggregate market value of our voting and non-voting common equity held by non-affiliates in any 12-month period as long as the aggregate market value of our outstanding voting and non-voting common equity held by non-affiliates is less than $75.0 million. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement, together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

We have not authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate as of the date on its respective cover or as otherwise specified therein and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe 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 or incorporated by reference in this prospectus, the applicable prospectus supplement and any related free writing prospectus and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

We own or have rights to use a number of registered and common law trademarks, service marks and/or trade names in connection with our business in the United States and/or in certain foreign jurisdictions. Solely for convenience, the trademarks, service marks, logos and trade names referred to in this prospectus are without the ® and ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors to these trademarks, service marks and trade names. This prospectus contains additional trademarks, service marks and trade names of others, which are the property of their respective owners. All trademarks, service marks and trade names appearing in this prospectus are, to our knowledge, the property of their respective owners. We do not intend our use or display of other companies' trademarks, service marks, copyrights or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies. We have trademarks for the names RENOVORX, RENOVOGEM, RENOVOCATH, TAMP and DELIVERING THERAPY WHERE IT MATTERS. We have a trademark pending for RenovoTAMP.

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus. It does not contain all of the information you need to consider in making your investment decision. Before making an investment decision, you should read this entire prospectus carefully and you should consider, among other things, the matters set forth under "Risk Factors" and our financial statements and related notes thereto appearing elsewhere in this prospectus. In this prospectus, except as otherwise indicated, "RenovoRx," the "Company," "we," "our," and "us" refer to RenovoRx, Inc., a Delaware corporation, and its subsidiaries.

Company Overview

We are a clinical-stage biopharmaceutical company focused on developing therapies for the local treatment of solid tumors. We are currently conducting a Phase 3 registrational trial for our lead product candidate RenovoGem™. Our therapy platform, RenovoRx Trans-Arterial Micro-Perfusion, or RenovoTAMP™, utilizes approved chemotherapeutics with validated mechanisms of action and well-established safety and side effect profiles, with the goal of increasing their efficacy, improving their safety, and widening their therapeutic window by combining such chemotherapeutics with our proprietary drug delivery system. RenovoTAMP combines our patented Food and Drug Administration ("FDA") cleared delivery system, RenovoCath®, with small molecule chemotherapeutic agents that can be forced across the vessel wall using pressure, targeting these anti-cancer drugs locally to the solid tumors. While we anticipate investigating other chemotherapeutic agents for intra-arterial delivery via RenovoTAMP, our clinical work to date has focused on gemcitabine, which is a generic small molecule drug. Our first product candidate, RenovoGem, is a drug /device combination consisting of intra-arterial gemcitabine and RenovoCath. FDA has determined that RenovoGem will be regulated as, and if approved we expect will be reimbursed as, a new oncology drug product. We have secured FDA Orphan Drug Designation for RenovoGem in two indications: pancreatic cancer and cholangiocarcinoma (bile duct cancer, or CCA). We have completed our RR1 Phase 1/2 and RR2 observational registry studies, with 20 and 25 patients respectively, in locally advanced pancreatic cancer, or LAPC. These studies demonstrated a median overall survival of 27.9 months in patients pre-treated with radiation followed by treatment with RenovoGem. Based on previous large randomized clinical trials, the expected survival of LAPC patients is 12 - 15 months in patients receiving only intravenous (IV) systemic chemotherapy or IV chemotherapy plus radiation (which are both considered standard of care). Unlike the randomized trials that established these standard-of-care results, our RR1 and RR2 clinical trials did not prospectively control the standard of care therapy received prior to administration of RenovoGem. Based on an FDA safety review of our Phase 1/2 study, FDA allowed us to proceed to evaluate RenovoGem within our Phase 3 registrational clinical trial.

In December 2021 we amended the protocol for this clinical trial to only allow for stereotactic body radiation therapy (SBRT) during the induction phase of the study (prior to randomization). We had previously permitted both SBRT and intensity-modulated radiation therapy (IMRT). Patients receiving IMRT, must complete 25 radiation treatments in combination with oral chemotherapy during the induction phase of the study, which takes between 35 and 56 days to complete. In comparison, patients receiving SBRT during the induction phase are only required to complete 5 treatments, over 5 consecutive days, and do not receive oral chemotherapy. The decision to modify the study population was based on the observation in the Phase 3 TIGeR-PaC study that IMRT patients had a higher dropout rate during the induction phase of the study due to the high frequency of hospital visits and side effects from the required concurrent chemotherapy. As part of the pre-randomization, induction phase change made to the protocol, we initiated a review of the statistical considerations for the study and in June 2022, submitted a modified Statistical Analysis Plan (the "Modified SAP") to FDA. As part of the Modified SAP, we now plan to (i) analyze only patients receiving SBRT, consistent with the protocol change made in December 2021, (ii) include a second interim analysis, (iii) change the total number of SBRT patients randomized in the study to 114 (a reduction from the original 200 patients) with a total of 86 deaths from SBRT patients, including all deaths from SBRT patients enrolled in the study before the submission of the Modified SAP, and (iv) repower the study from 90% to 80%, which is commonly used in clinical trials. We believe these changes will shorten the timeframe needed to complete the study and also significantly decrease our costs. We have not discussed the protocol amendment or the Modified SAP with the FDA, and we cannot provide any assurance that the FDA will agree with these modifications. The first planned interim analysis is triggered when 30%, or 26 of 86, of the total number of deaths have occurred, and the second interim analysis at 60%, or 52 of 86, of the total number of deaths have occurred. Given that the timing of the interim analysis is predicated on a specific number of deaths, it is difficult to predict the exact timing of the interim analysis or when we will be able to complete the study. As of September 21, 2022, the Phase 3 TIGeR-PaC trial has randomized 43 patients out of the 114 total needed under the Modified SAP. At this rate, we anticipate that all patients will be enrolled and randomized in 2024, with the final study readout in 2025. We plan to submit a protocol amendment to FDA in the second half of 2022 to reflect the changes in the Modified SAP.

We are also planning to evaluate RenovoGem in a second indication in a Phase 2/3 trial in extrahepatic (or outside the liver) cholangiocarcinoma (or eCCA), cancer that occurs in the bile ducts that lead out of the liver and join with the gallbladder. After significant input from key opinion leaders across the spectrum of relevant medical specialties and feedback from the FDA, we submitted the protocol for a Phase 2/3 eCCA clinical trial to FDA. If FDA does not object to our study protocol, we anticipate launching the eCCA trial and enrolling the first patient in the fourth quarter of 2022. In addition, we may evaluate RenovoGem in other indications, potentially including locally advanced lung cancer, locally advanced uterine tumors, and glioblastoma (an aggressive type of cancer that can occur in the brain or spinal cord). To date, we are focused on developing drug/device candidates with gemcitabine, but in the future, we may develop other product candidates with other chemotherapeutic agents for intra-arterial delivery via our RenovoTAMP therapy platform.

Our RenovoTAMP therapy platform is focused on optimizing drug concentration in solid tumors using approved small molecule chemotherapeutics. Our platform enables physicians to isolate segments of the vascular anatomy closest to tumors and force chemotherapy across the blood vessel wall to bathe these difficult-to-reach tumors in chemotherapy. Specifically, our patented approach allows physicians to combine, on the one hand, pre-treatment of the local blood vessels and tissue with standard-of-care radiation therapy to decrease chemotherapy washout and, on the other hand, local delivery via our patented RenovoCath delivery system which utilizes pressure to force small molecule chemotherapy into the tumor tissue. We believe there are many advantages to our RenovoTAMP therapy platform:

● Application of Approved Small Molecule Chemotherapeutic Agents: We use approved small molecule chemotherapeutic agents, such as gemcitabine, with well-known safety and efficacy profiles.

● Targeted Approach: In a preclinical study using our therapy platform, we demonstrated up to 100 times higher local drug concentration compared to systemic chemotherapy. We believe our RenovoTAMP therapy platform allows for a targeted approach that can decrease systemic exposure and improve patient outcomes.

● Delivery Method Independent of Tumor Vascularity: Our therapy platform is designed to deliver small molecule chemotherapeutic agents to solid tumors resistant to systemic chemotherapy due to lack of tumor feeder blood vessels. If approved, our product candidates have the potential to treat tumors that are not directly supported by blood vessels.

● Broad Application for Solid Tumor Indications: Our therapy platform is not restricted to a single small molecule chemotherapeutic agent or solid tumor type. As such, it may be applied for use in additional solid tumor indications, including in solid tumors without identifiable tumor feeder blood vessels.

Corporate Information

We were incorporated in the State of Delaware on December 17, 2012. Our principal executive offices are located at 4546 El Camino Real, Suite B1, Los Altos, CA 94022. Our telephone number is (650) 284-4433. Our website address is https://renovorx.com. Information contained in our website does not constitute any part of, and is not incorporated into, this prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making a decision to invest in our securities, in addition to carefully considering the Risk Factors noted below and the other information contained in this prospectus and incorporated by reference herein, you should carefully consider the risks described under the caption "Risk Factors" contained in our most recent annual report on Form 10-K and in our most recent quarterly report on Form 10-Q, as well as any amendments thereto, which are incorporated by reference into this prospectus in their entirety. See "Where You Can Find More Information" and "Incorporation of Certain Information by Reference."

FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference herein contain forward-looking statements. All statements other than statements of historical facts contained in this prospectus and the information incorporated by reference herein, including statements regarding our future results of operations and financial position, business strategy, product candidates, planned preclinical studies and clinical trials, results of clinical trials, research and development costs, regulatory approvals, timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that are in some cases beyond our control and may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "would," "expect," "plan," "anticipate," "could," "intend," "target," "project," "believe," "estimate," "predict," "potential," or "continue" or the negative of these terms or other similar expressions. Forward-looking statements contained in this prospectus and the documents incorporated by reference herein include, but are not limited to, statements about:

- the sufficiency of our existing cash, cash equivalents, and investments to fund our future operating expenses and capital expenditure requirements;
- our estimates regarding expenses, future revenue, anticipated capital requirements to fund our future operating expenses, and our need for additional financing;
- our financial performance;
- our anticipated use of our existing cash, cash equivalents, and investments;
- the ability of our clinical trials to demonstrate safety and efficacy of our product candidates, and other positive results;
- the progress and focus of our current and future clinical trials, and the timing of reporting of data from those trials;
- our continued reliance on third parties to conduct clinical trials of our product candidates, and for the manufacture of our product candidates;
- the beneficial characteristics, safety, efficacy, and therapeutic effects of our product candidates;
- our ability to advance product candidates into and successfully complete clinical trials;
- our ability to further develop and expand our therapy platform, both to use different chemotherapeutic agents and to include new indications;

- expectations relating to the timing of the provision of updates on, data readouts for, and completion of our clinical trials;
- our ability to obtain and maintain regulatory approval of our product candidates and the timing or likelihood of regulatory filings and approvals, including our expectation to seek special designations, such as orphan drug designation, for our product candidates for various diseases;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- our plans relating to commercializing our product candidates, if approved, including the geographic areas of focus and our potential and ability to successfully commercialize our product candidates and generate revenue;
- the implementation of our strategic plans for our business and product candidates;
- the expected potential benefits of strategic collaborations with third parties and our ability to attract collaborators with relevant and complementary expertise;
- our estimates of the number of patients in the United States who suffer from the diseases we target, and enrollment timing and projections for our clinical trials;
- our estimates of potential market opportunities and our ability to successfully realize these opportunities;
- the success of competing therapies that are or may become available;
- developments relating to our competitors and our industry, including competing product candidates and therapies;
- our plans relating to the further development and manufacturing of our product candidates, including for additional indications which we may pursue;
- our plans and ability to obtain or protect intellectual property rights, including extensions of existing patent terms where available;
- the scope of protection we are able to establish and maintain for intellectual property rights, including our therapy platform and product candidates;
- our ability to successfully negotiate and enter into agreements with distribution, strategic and corporate partners;
- our potential and ability to successfully manufacture and supply our product candidates for clinical trials and for commercial use, if approved;
- our ability to retain the continued service of our key personnel and to identify, hire, and then retain additional qualified personnel; and
- our expectations regarding the impact of the ongoing COVID-19 pandemic and geopolitical events on our business.

We have based these forward-looking statements largely on our current expectations and projections about our business, the industry in which we operate and financial trends that we believe may affect our business, financial condition, results of operations and prospects, and these forward-looking statements are not guarantees of future performance or development. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions described in the section titled "Risk Factors" and elsewhere in this prospectus, each accompanying prospectus supplement, and the information incorporated by reference herein and therein. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein until after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and you are cautioned not to unduly rely upon these statements.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds to us from the sale of our securities under this prospectus. Unless otherwise provided in the applicable prospectus supplement, we currently expect to use the net proceeds that we receive from this offering for working capital and other general corporate purposes. We may also use a portion of the net proceeds to acquire, license or invest in complementary products, technologies or businesses; however, we currently have no agreements or commitments to complete any such transaction. The expected use of net proceeds of this offering represents our current intentions based on our present plans and business conditions. We cannot specify with certainty all of the particular uses for the net proceeds to be received upon the closing of this offering. Pending these uses, we plan to invest the net proceeds of this offering in short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DESCRIPTION OF SECURITIES

We may issue from time to time, in one or more offerings, the following securities:

- shares of common stock, par value $0.0001 per share, of the Company;
- shares of preferred stock, par value $0.0001 per share, of the Company;
- debt securities, which may be senior or subordinated, and which may be convertible into our common stock or be non-convertible;
- purchase contracts; and
- units representing two or more of the foregoing securities.

We will set forth in the applicable prospectus supplement and/or free writing prospectus a description of any debt securities, purchase contracts or units issued by us that may be offered or sold pursuant to this prospectus. The terms of the offering of securities, the initial offering price and the net proceeds to us will be contained in the prospectus supplement, and other offering material, relating to such offer.

DESCRIPTION OF CAPITAL STOCK

The following descriptions of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to our amended and restated certificate of incorporation and the amended and restated bylaws, copies of which are filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

General

Our amended and restated certificate of incorporation authorizes common stock and preferred stock. Our authorized capital stock consists of 265,000,000 shares, $0.0001 par value per share, of which:

- 250,000,000 shares are designated as common stock; and
- 15,000,000 shares are designated as preferred stock.

Common Stock

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive ratably those dividends, if any, as may be declared by the board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, the holders of our common stock will be entitled to share ratably in the assets legally available for distribution to stockholders after the payment of or provision for all of our debts and other liabilities, subject to the prior rights of any preferred stock then outstanding. Holders of our common stock have no preemptive, conversion or other subscription rights and there are no redemption or sinking funds provisions applicable to our common stock. All outstanding shares of our common stock are duly authorized, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Voting Rights

Each holder of our common stock is entitled to one vote per share on matters to be voted on by stockholders and also are entitled to receive such dividends, if any, as may be declared from time to time by our board of directors in its discretion out of funds legally available therefor. Holders of our common stock have exclusive voting rights for the election of our directors and all other matters requiring stockholder action, except with respect to amendments to our certificate of incorporation that alter or change the powers, preferences, rights or other terms of any outstanding preferred stock if the holders of such affected series of preferred stock are entitled to vote on such an amendment or filling vacancies on the board of directors. The presence at meetings of the stockholders, in person, by remote communication or by proxy, of the holders of our common stock representing a majority of the combined voting power of the outstanding shares of common stock will constitute a quorum for the transaction of business at such meetings.

Dividends

Holders of common stock are entitled to share ratably in any dividends declared by our board of directors, if any, subject to any preferential dividend rights of any outstanding preferred stock. Dividends consisting of shares of common stock may be paid to holders of shares of common stock.

Liquidation

Upon our liquidation or dissolution, the holders of our common stock will be entitled to receive pro rata all assets remaining available for distribution to stockholders after payment of all liabilities and provision for the liquidation of any shares of preferred stock at the time outstanding.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription, or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. 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 any series of our convertible preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are fully paid and nonassessable.

Preferred Stock

Our board of directors will have the authority, without further action by the stockholders, to issue up to 15,000,000 shares of preferred stock in one or more series and to fix the designations, powers, preferences, privileges, and relative participating, optional, or special rights as well as the qualifications, limitations, or restrictions of the preferred stock, including dividend rights, conversion rights, voting rights, terms of redemption, and liquidation preferences, any or all of which may be greater than the rights of the common stock. Our board of directors, without stockholder approval, will be able to issue convertible preferred stock with voting, conversion, or other rights that could adversely affect the voting power and other rights of the holders of common stock. Preferred stock could be issued quickly with terms calculated to delay or prevent a change of control or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock, and may adversely affect the voting and other rights of the holders of common stock. We have no present plans to issue any shares of preferred stock.

Public Warrants

On August 25, 2021, our Registration Statement on Form S-1/A relating to the initial public offering ("IPO") of units of securities, or Units, was declared effective by the SEC. In connection with the IPO, we issued and sold an aggregate of 1,850,000 units at a price of $9.00 per unit. Each unit consisted of (a) one share of common stock and (b) one warrant to purchase one share of common stock at an exercise price equal to $10.80 per share, which is exercisable for a period of five years after the issuance date ("Warrant(s)"). We also granted the underwriters an over-allotment option, exercisable for 45 days after August 25, 2021, to purchase any combination of up to 277,500 shares of our common stock and/or common stock warrants to purchase 277,500 shares of common stock with an exercise price of $10.80 per share. The underwriters exercised their over-allotment option to purchase 277,500 common stock warrants on August 30, 2021. In connection with the IPO, the underwriters were issued a five-year warrant, exercisable on or after February 25, 2022, to purchase up to 198,875 shares of the Company's common stock at an exercise price of $10.80 (the "Underwriter's Warrant").

Warrant Agent

The Warrants were issued in registered form under a warrant agent agreement (the "Warrant Agent Agreement") between us and our warrant agent, Pacific Stock Transfer Co. (the "Warrant Agent"). The material provisions of the warrants are set forth herein and a copy of the Warrant Agent Agreement has been filed as an exhibit to the Registration Statement on Form S-1/A. The Company and the Warrant Agent may amend or supplement the Warrant Agent Agreement without the consent of any holder for the purpose of curing any ambiguity, or curing, correcting or supplementing any defective provision contained therein or adding or changing any other provisions with respect to matters or questions arising under the Warrant Agent Agreement as the parties thereto may deem necessary or desirable and that the parties determine, in good faith, shall not adversely affect the interest of the Warrant holders. All other amendments and supplements to the Warrant Agent Agreement shall require the vote or written consent of holders of at least 50.1% of the Warrants.

Warrant Terms

The Warrants entitle the registered holder to purchase one share of our common stock at a price equal to $10.80 per share, subject to adjustment as discussed below, terminating at 5:00 p.m., New York City time, on the fifth (5^{th}) anniversary of the date of issuance.

The exercise price and number of shares of common stock issuable upon exercise of the Warrants may be adjusted in certain circumstances, including in the event of a stock dividend, extraordinary dividend or recapitalization, reorganization, merger or consolidation.

The Warrants may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the Warrant Agent, with the exercise form attached to the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price, by certified or official bank check payable to us, for the number of warrants being exercised. The Warrant holders do not have the rights or privileges of holders of common stock or any voting rights until they exercise their Warrants and receive shares of common stock, except as set forth in the Warrants. After the issuance of shares of common stock upon exercise of the Warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

No Warrants will be exercisable for cash unless at the time of the exercise a prospectus or prospectus relating to common stock issuable upon exercise of the Warrants is current and the common stock has been registered or qualified or deemed to be exempt under the securities laws of the state of residence of the holder of the warrants. Under the terms of the Warrant Agent Agreement, we have agreed to use our best efforts to maintain a current prospectus or prospectus relating to common stock issuable upon exercise of the Warrants until the expiration of the Warrants. Additionally, the market for the Warrants may be limited if the prospectus or prospectus relating to the common stock issuable upon exercise of the Warrants is not current or if the common stock is not qualified or exempt from qualification in the jurisdictions in which the holders of such Warrants reside. In no event will the registered holders of a Warrant be entitled to receive a net-cash settlement in lieu of physical settlement in shares of our common stock.

No fractional shares of common stock will be issued upon exercise of the Warrants. If, upon exercise of the Warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number the number of shares of common stock to be issued to the Warrant holder. If multiple Warrants are exercised by the holder at the same time, we will aggregate the number of whole shares issuable upon exercise of all the Warrants.

Private Warrants

In the IPO, we triggered the automatic conversion of certain outstanding convertible notes plus accrued interest into an aggregate of 708,820 private units, each unit consisting of one share of common stock and one five-year warrant to purchase one share of common stock at an exercise price equal to $10.80 per share. The private warrants have substantially the same terms as the public Warrants except that the private warrants were issued in a transaction exempt from the registration requirements of the Securities Act.

Registration Rights

We are party to that certain Underwriter's Warrant dated August 30, 2021, that provides that certain holders of our common stock have certain registration rights as set forth below. The registration of shares of our common stock by the exercise of registration rights would enable the holders to sell these shares without restriction under the Securities Act when the applicable registration statement is declared effective. Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such holders may include.

Demand Registration Rights

The Underwriter's Warrant will provide for one demand registration right at our expense and an additional demand registration right at the holder's expense for a period of five years following the date of commencement of the IPO.

Piggyback Registration Rights

The Underwriter's Warrant will provide for unlimited piggyback registration rights at our expense for a period of five years following the date of commencement of the IPO.

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

Certain provisions of Delaware law and certain provisions included in our Sixth Amended and Restated Certificate of Incorporation and our Amended and Restated Bylaws summarized below may be deemed to have an anti-takeover effect and may delay, deter, or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might result in a premium being paid over the market price for the shares held by stockholders.

Board of Directors Vacancies

Our Sixth Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws authorize only our board of directors to fill vacant directorships. In addition, the number of directors constituting our board of directors may be set only by resolution of the majority of the incumbent directors.

Removal of Directors

Our Sixth Amended and Restated Certificate of Incorporation provides that stockholders may only remove a director for cause by the affirmative vote of the holders of at least two-thirds in voting power of the outstanding shares of capital stock of the Company entitled to vote at an election of directors.

No Cumulative Voting

Our Sixth Amended and Restated Certificate of Incorporation provides that stockholders do not have the right to cumulate votes in the election of directors.

Stockholder Action; Special Meeting of Stockholders

Our Sixth Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that our stockholders may not take action by written consent. Our Sixth Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws further provide that special meetings of our stockholders may be called by a majority of the board of directors, the Chief Executive Officer, or the Chairman of the board of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our Amended and Restated Bylaws provide that stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at our annual meeting of stockholders, must provide timely notice of their intent in writing. To be timely, a stockholder's notice must be delivered to the secretary at our principal executive offices not later than 5 p.m., local time, on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, or if no annual meeting was held in the preceding year, notice by the stockholder to be timely must be so delivered not earlier than 5 p.m., local time, on the 120th day prior to such annual meeting and not later than 5 p.m., local time, on the later of the 90th day prior to such annual meeting or the 10th day following the day on which a public announcement of the date of such meeting is first made by us. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders.

Authorized but Unissued Shares

Our authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval and may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise. If we issue such shares without stockholder approval and in violation of limitations imposed by the Nasdaq Capital Market or any stock exchange on which our stock may then be trading, our stock could be delisted.

Exclusive Forum

Our Sixth Amended and Restated Certificate of Incorporation provides that unless we consent in writing to the selection of an alternative forum, the State of Delaware is the sole and exclusive forum for: (i) any derivative action or proceeding brought on behalf of us, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of our Company to us or our stockholders, (iii) any action asserting a claim against us, our directors, officers or employees arising pursuant to any provision of the DGCL or our Sixth Amended and Restated Certificate of Incorporation or our Amended and Restated Bylaws, or (iv) any action asserting a claim against us, our directors, officers, employees or agents governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction.

Additionally, our Sixth Amended and Restated Certificate of Incorporation provides that unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America will be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock are deemed to have notice of and consented to this provision.

Business Combinations with Interested Stockholders

We are governed by Section 203 of the DGCL. Subject to certain exceptions, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a business combination (as defined in such section) with an "interested stockholder" (defined generally as any person who beneficially owns 15% or more of the outstanding voting stock of such corporation or any person affiliated with such person) for a period of three years following the time that such stockholder became an interested stockholder, unless (i) prior to such time the board of directors of such corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; (ii) upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of such corporation at the time the transaction commenced (excluding for purposes of determining the voting stock of such corporation outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (A) by persons who are directors and also officers of such corporation and (B) by 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 (iii) at or subsequent to such time the business combination is approved by the board of directors of such corporation and authorized at a meeting of stockholders (and not by written consent) by the affirmative vote of at least 66 2/3% of the outstanding voting stock of such corporation not owned by the interested stockholder.

Limitation of Liability and Indemnification of Officers and Directors

Our Sixth Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that we must indemnify our directors and officers to the fullest extent authorized by the DGCL. We are expressly authorized to, and do, carry directors' and officers' insurance providing coverage for our directors, officers and certain employees for some liabilities. We believe that these indemnification provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation on liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duty. These provisions may also have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. Investors may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Listing

Our common stock is listed on The Nasdaq Capital Market under the trading symbol "RNXT."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Pacific Stock Transfer Co. The transfer agent and registrar's address is 6725 Via Austi Parkway #300, Las Vegas, NV 89119.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may issue debt securities either separately, or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a trustee to be identified in an accompanying prospectus supplement. We have summarized select portions of the indenture below. The summary is not complete. The form of the indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part and you should read the indenture for provisions that may be important to you. In the summary below, we have included references to the section numbers of the indenture so that you can easily locate these provisions. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer's certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered the aggregate principal amount and the following terms of the debt securities, if applicable:

- the title and ranking of the debt securities (including the terms of any subordination provisions);
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities;
- any limit upon the aggregate principal amount of the debt securities;
- the date or dates on which the principal of the securities of the series is payable;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where principal of, and interest, if any, on the debt securities will be payable (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;
- the period or periods within which, the price or prices at which and the terms and conditions upon which we may redeem the debt securities;

- any obligation we have to redeem or purchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and the terms and conditions upon which securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

- the dates on which and the price or prices at which we will repurchase debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;

- the denominations in which the debt securities will be issued, if other than denominations of $1,000 and any integral multiple thereof;

- whether the debt securities will be issued in the form of certificated debt securities or global debt securities;

- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;

- the currency of denomination of the debt securities, which may be United States dollars or any foreign currency, and if such currency of denomination is a composite currency, the agency or organization, if any, responsible for overseeing such composite currency;

- the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made;

- if payments of principal of, premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;

- the manner in which the amounts of payment of principal of, premium, if any, or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;

- any provisions relating to any security provided for the debt securities;

- any addition to, deletion of or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;

- any addition to, deletion of or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;

- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities;

- any other terms of the debt securities, which may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the securities; and

- whether any of our direct or indirect subsidiaries will guarantee the debt securities of that series, including the terms of subordination, if any, of such guarantees.

We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of a clearing agency registered under the Exchange Act, which we refer to as the depositary, or a nominee of the depositary (we will refer to any debt security represented by a global debt security as a "book-entry debt security"), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a "certificated debt security") as set forth in the applicable prospectus supplement. Except as set forth under the heading "Global Debt Securities and Book-Entry System" below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities

You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Global Debt Securities and Book-Entry System

Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the depositary, and registered in the name of the depositary or a nominee of the depositary.

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to any person, which we refer to as a successor person, unless:

- we are the surviving corporation or the successor person (if other than us) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture; and

- immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties to us.

Events of Default

"Event of Default" means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);

- default in the payment of principal of any security of that series at its maturity;

- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee, or we and the trustee receive written notice from the holders of not less than 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;

- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of us; and

- any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

We will provide the trustee written notice of any Default or Event of Default within 30 days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action we are taking or propose to take in respect thereof.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture provides that the trustee may refuse to perform any duty or exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in performing such duty or exercising such right or power. Subject to certain rights of the trustee, 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.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security satisfactory to the trustee, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall send to each securityholder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such Default or Event of Default. The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We and the trustee may modify, amend or supplement the indenture or the debt securities of any series without the consent of any holder of any debt security:

- to cure any ambiguity, defect or inconsistency;
- to comply with covenants in the indenture described above under the heading “Consolidation, Merger and Sale of Assets”;
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to add guarantees with respect to debt securities of any series or secure debt securities of any series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of debt securities of any series;
- to comply with the applicable procedures of the applicable depositary;
- to make any change that does not adversely affect the rights of any holder of debt securities;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act.

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;

- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance

The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the irrevocable deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money or U.S. government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants

The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading "Consolidation, Merger and Sale of Assets" and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and

- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series.

We refer to this as covenant defeasance. The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities;

- such deposit will not result in a breach or violation of, or constitute a default under the indenture or any other agreement to which we are a party;

- no Default or Event of Default with respect to the applicable series of debt securities shall have occurred or is continuing on the date of such deposit; and

- delivering to the trustee an opinion of counsel to the effect that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

No Personal Liability of Directors, Officers, Employees or Stockholders

None of our past, present or future directors, officers, employees or stockholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability. This waiver and release is part of the consideration for the issue of the debt securities. However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

The indenture will provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the indenture, the debt securities or the transactions contemplated thereby.

The indenture will provide that any legal suit, action or proceeding arising out of or based upon the indenture or the transactions contemplated thereby may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the City of New York, and we, the trustee and the holder of the debt securities (by their acceptance of the debt securities) irrevocably submit to the non-exclusive jurisdiction of such courts in any such suit, action or proceeding. The indenture will further provide that service of any process, summons, notice or document by mail (to the extent allowed under any applicable statute or rule of court) to such party's address set forth in the indenture will be effective service of process for any suit, action or other proceeding brought in any such court. The indenture will further provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the courts specified above and irrevocably and unconditionally waive and agree not to plead or claim any such suit, action or other proceeding has been brought in an inconvenient forum.

DESCRIPTION OF PURCHASE CONTRACTS

The following description summarizes the general features of the purchase contracts that we may offer under this prospectus. Although the features we have summarized below will generally apply to any future purchase contracts we may offer under this prospectus, we will describe the particular terms of any purchase contracts that we may offer in more detail in the applicable prospectus supplement. The specific terms of any purchase contracts may differ from the description provided below as a result of negotiations with third parties in connection with the issuance of those purchase contracts, as well as for other reasons. Because the terms of any purchase contracts we offer under a prospectus supplement may differ from the terms we describe below, you should rely solely on information in the applicable prospectus supplement if that summary is different from the summary in this prospectus.

We will incorporate by reference into the registration statement of which this prospectus is a part any purchase contract that we may offer under this prospectus before the sale of the related purchase contract. We urge you to read any applicable prospectus supplement related to specific purchase contracts being offered, as well as the complete instruments that contain the terms of the securities that are subject to those purchase contracts. Certain of those instruments, or forms of those instruments, have been filed as exhibits to the registration statement of which this prospectus is a part, and supplements to those instruments or forms may be incorporated by reference into the registration statement of which this prospectus is a part, from reports we file with the SEC.

We may issue purchase contracts, including contracts obligating holders to purchase from us, and for us to sell to holders, a specific or variable number of our securities at a future date or dates. Alternatively, the purchase contracts may obligate us to purchase from holders, and obligate holders to sell to us, a specific or varying number of our securities.

If we offer any purchase contracts, certain terms of that series of purchase contracts will be described in the applicable prospectus supplement, including, without limitation, the following:

- the price of the securities or other property subject to the purchase contracts (which may be determined by reference to a specific formula described in the purchase contracts);
- whether the purchase contracts are issued separately, or as a part of units each consisting of a purchase contract and one or more of our other securities, including U.S. Treasury securities, securing the holder's obligations under the purchase contract;
- any requirement for us to make periodic payments to holders or vice versa, and whether the payments are unsecured or pre-funded;
- any provisions relating to any security provided for the purchase contracts;
- whether the purchase contracts obligate the holder or us to purchase or sell, or both purchase and sell, the securities subject to purchase under the purchase contract, and the nature and amount of each of those securities, or the method of determining those amounts;
- whether the purchase contracts are to be prepaid or not;
- whether the purchase contracts are to be settled by delivery, or by reference or linkage to the value, performance or level of the securities subject to purchase under the purchase contract;
- any acceleration, cancellation, termination or other provisions relating to the settlement of the purchase contracts;
- a discussion of certain U.S. federal income tax considerations applicable to the purchase contracts;
- whether the purchase contracts will be issued in fully registered or global form; and
- any other terms of the purchase contracts and any securities subject to such purchase contracts.

DESCRIPTION OF UNITS

We may issue units comprising two or more securities described in this prospectus in any combination. For example, we might issue units consisting of a combination of common stock and warrants to purchase preferred stock. The following description sets forth certain general terms and provisions of the units that we may offer pursuant to this prospectus. The particular terms of the units and the extent, if any, to which the general terms and provisions may apply to the units so offered will be described in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the unit will have the rights and obligations of a holder of each included security. Units will be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date. A copy of the forms of the unit agreement and the unit certificate relating to any particular issue of units will be filed with the SEC each time we issue units, and you should read those documents for provisions that may be important to you. For more information on how you can obtain copies of the forms of the unit agreement and the related unit certificate, see the section of this prospectus captioned "Where You Can Find More Information."

The prospectus supplement relating to any particular issuance of units will describe the terms of those units, including, to the extent applicable, the following:

- the designation and terms of the units and the securities included in the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provision for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, direct sales to the public, "at the market" offerings, negotiated transactions, block trades or a combination of these methods. We may sell the offered securities from time to time:

- through underwriters or dealers;
- through agents;
- directly to one or more purchasers; or
- through a combination of any of these methods of sale.

We will identify the specific plan of distribution, including any underwriters, dealers, agents or direct purchasers and their compensation in the applicable prospectus supplement.

LEGAL MATTERS

Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California, will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of RenovoRx, Inc. 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 of RenovoRX, Inc. as of and for the year ended December 31, 2021 incorporated by reference in this registration statement, have been audited by Baker Tilly US, LLP, an independent registered public accounting firm, as set forth in their report thereon incorporated by reference in this registration statement, in reliance upon such report and upon the authority of said firm as experts in accounting and auditing.

The financial statements as of December 31, 2020 and for the year then ended included in this prospectus and in the registration statement have been so included in reliance on the report of Frank, Rimerman & Co. LLP, an independent registered public accounting firm, (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern) appearing elsewhere herein and in the registration statement, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

Because we are subject to the information and reporting requirements of the Exchange Act, we file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at http://www.sec.gov. We also maintain a website at www.renovorx.com where these materials are available. You may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessible through our website is not a part of this prospectus and is not incorporated by reference herein, and the inclusion of our website address in this prospectus is an inactive textual reference only. This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Forms of the indenture and other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC's rules allow us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is deemed to be part of this prospectus, and subsequent information that we file with the SEC will automatically update and supersede that information. Any statement contained in a previously filed document incorporated by reference will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus modifies or replaces that statement.
This prospectus and any accompanying prospectus supplement incorporate by reference the documents set forth below that have previously been filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on March 30, 2022;
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 13, 2022, and for the quarter ended June 30, 2022, filed with the SEC on August 12, 2022;
- our Current Reports on Form 8-K, which were filed with the SEC on June 9, 2022, July 19, 2022 and September 19, 2022; and
- the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on August 11, 2021, including any amendments thereto or reports filed for the purposes of updating this description.

Any documents we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, as well as subsequent to the effectiveness of the registration statement and prior to the termination of the offering of our securities to which this prospectus relates, will automatically be deemed to be incorporated by reference into this prospectus and to be part hereof from the date of filing those documents. We are not, however, incorporating by reference any documents or portions thereof that are not deemed "filed" with the SEC, including any information furnished pursuant to Item 2.02 or Item 7.01 of Form 8-K or related exhibits furnished pursuant to Item 9.01 of Form 8-K. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

RenovoRx, Inc.
Attn: Investor Relations
4546 El Camino Real, Suite B1
Los Altos, California 94022
650-284-4433

The information accessible through any website referred to in this prospectus or any document incorporated herein is not, and should not be deemed to be, a part of this prospectus.